Letter to Stockholders

Notice of 2003 Annual Meeting and Proxy Statement

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ECHELON®

Proxy Statement and 2002 Annual Report to Stockholders

Dear Stockholder:

Throughout one of the most difficult periods ever for the information technology market sector, Echelon continues to prosper. Fueled by innovation, sustained by productivity, and encouraged by new opportunities, Echelon completed another profitable year.

Revenue for 2002 was $122.8 million, an increase of 60 percent over revenue from 2001. Net income for the year was $16.8 million, or 41 cents per share on a fully diluted basis, based on a weighted average of 40,726,000 common shares outstanding, compared to net income of $6.0 million, or 15 cents per share on a fully diluted basis, based on an average of 41,141,000 common shares outstanding for 2001.

In addition to our strong financial performance, Echelon celebrated many important achievements. Among the highlights:

- Echelon launched the Panoramix™ enterprise software platform. Panoramix extends the total, end-to-end management and control capabilities of Echelon's visionary networking technology to large-scale management systems. The result is an enterprise-wide system that enables companies to manage hundreds or thousands of networks of everyday devices located in facilities worldwide.
- Echelon announced the new PL 3120® and PL 3150® Power Line Smart Transceivers, a family of open ANSI standards based, "devices on a chip" that delivers the world's leading power line technology and an intelligent networking processor core in a package the size of a pencil eraser head.
- Echelon began shipping two new products from its *i*.LON® family of Internet connectivity products for LonWorks networks, the *i*.LON 10 Ethernet Adapter and *i*.LON 100 Internet Server. The *i*.LON 10 is designed to provide an extremely low-cost entry point for Internet device connectivity. The *i*.LON 100 is targeted at small- to mid-size commercial and industrial networks, such as those typically used at schools, convenience stores, banks, water treatment plants, pumping stations, and factories.
- We welcomed two new members to the Echelon team: Michael E. Lehman, formerly Executive Vice President, Corporate Resources and Chief Financial Officer of Sun Microsystems, Inc., was appointed to our Board of Directors, and Kathy Bloch, from the law firm of Wilson Sonsini Goodrich & Rosati, joined Echelon as Sr. Vice President and General Counsel.
- Fuji Electric announced it would join Echelon's Open Systems Alliance™ Program and become an integrator of open LonWorks networks. Fuji will also become an authorized Echelon training center, and will add a dedicated LonWorks sales organization within the Fuji Group — expanding the LonWorks market to other OEMs and network integrators within the Japanese market.
- Echelon received a Digital Innovation Award for most innovative technology in the Building Infrastructure category at Realcomm 2002 in Las Vegas. The "Digies" are presented to individuals and corporations demonstrating vision, drive, passion, consistency and determination to move the commercial real estate industry into a digital model for the 21st century.

- Honeywell incorporated Echelon's LNS® software platform and network operating system into its EXCEL® 5000 OPEN™ System. The EXCEL 5000 OPEN System is Honeywell's flagship product line for building automation and controls. Honeywell also introduced the Care™ 4.0 human-machine interface (HMI) and network tool. In addition to Honeywell's SymetrE™ and Ascelon™ HMI products, the company now has a worldwide offering of LNS based software tools and interfaces for the complete range of commercial buildings.
- Echelon passed its ISO 9001:2000 audit and is being processed for ISO certification. Our commitment to quality is embodied in the Quality Management System (QMS). ISO certification illustrates that Echelon continues to focus on the excellence of our products and organization with an eye toward continuous improvement and total customer satisfaction.

We view these achievements as evidence of our ascendancy in providing the infrastructure for networking of everyday devices and laying the groundwork for future growth. We expect growth to come on three fronts: as we penetrate new OEM accounts, as we expand our presence in the utility market, and as we enter the distributed enterprise market. Our innovations have the potential to change the market dynamics and our position within these three areas in fundamental ways.

As an infrastructure company, our customers depend on us to provide them with the tools required to produce more intelligent applications and devices. We view our customers as virtual partners working with us to develop the LonWorks industry. These partnerships helped LonWorks become the de facto standard adopted by thousands of manufacturers around the world. Today there are over 30 million LonWorks enabled devices in homes, utilities, buildings, factories, trains, and other systems worldwide.

This landscape of millions of LonWorks devices will enable us to leverage our infrastructure technology and expand into new markets. As a world leader in offering a broad and robust platform that extends from the simplest sensor to the most complex business intelligence system, we believe Echelon brings a compelling and unique value proposition to the market.

The acquisition of BeAtHome in early 2002 added a wealth of experience and a history of success in developing enterprise software to Echelon's expertise in device networking. This led to the recent launch of Panoramix, Echelon's new enterprise software platform that is designed to easily and cost-effectively allow companies to extract and manage data from hundreds of remote locations anywhere in the world. It fulfills the Echelon promise of end-to-end solutions for automation and management of "smart" devices.

By providing a platform for large multi-site organizations to tap into the information stored in their device networks and integrate it with planning, operating, and other business systems, through the Panoramix platform, we are helping companies gain insight into the heart of their businesses.

Also, this platform will become integral to our Networked Energy Services (NES) system. Created from the success of the Enel project, NES goes beyond a component-based solution to deliver a complete end-to-end energy system for utilities. It brings them the promise of a single, open, extensible infrastructure to which they can run a wide set of functions that enable them to cut costs and increase quality in many of their operational areas. For example, utilities using Echelon's NES system will be able to offer advanced customer care services such as multi-tiered billing, pre-paid electricity, fault and outage detection, remote meter reading and more accurate billing.

In the Enel project, Echelon receives about $10 per connected home or building. With our NES offering, we expect to offer a complete system infrastructure built on the same open standards employed in the Enel system, but because we will be offering the entire infrastructure ourselves, we expect to receive over five times the revenue per connected site. Physically, the system will consist of a family of intelligent, communicating electricity meters, powerful IP connected data concentrators, and enterprise software based on the Panoramix enterprise software platform.

Echelon's exceptional results for 2002 would not be possible without the dedication, talent and drive of Echelon's employees. To Echelon employees, customers, partners, and our long-term shareholders, thank you all.

M. Kenneth Oshman
Chairman & Chief Executive Officer
April 7, 2003

The foregoing may contain statements relating to future plans, events or performance. These forward-looking statements may involve risks and uncertainties, including risks associated with uncertainties pertaining to the timing of customer orders, demand for Echelon's products and services, growth of markets for our products and services; the risk that the proposed transaction with Enel is not completed as contemplated; risks associated with the development, performance and market acceptance of Echelon's Panoramix enterprise platform and NES system, including the amount and timing of revenue expected from the NES system, overall and per connected site; and other risks identified in our SEC filings. Actual results, events and performance may differ materially. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of this date. We undertake no obligation to release publicly the result of any revisions to these forward-looking statements that may be made to reflect events or circumstances after this date or to reflect the occurrence of unanticipated events.

ECHELON CORPORATION

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON MAY 16, 2003
11:00 A.M. PACIFIC TIME

We cordially invite you to attend the 2003 Annual Meeting of Stockholders of Echelon Corporation. The meeting will be held on Friday, May 16, 2003 at 11:00 a.m., Pacific Time, in the Bay Room at Lou's Village, 1465 West San Carlos Street, San Jose, California 95126. At the meeting we will:

1. Elect three Class B directors for a term of three years and until their successors are duly elected and qualified;
2. Ratify the appointment of KPMG LLP as our independent auditors for the fiscal year ending December 31, 2003; and
3. Transact any other business as may properly come before the meeting or any postponement or adjournment thereof.

These items are fully discussed in the following pages, which are made part of this Notice. Stockholders who owned our common stock at the close of business on Monday, March 31, 2003 may attend and vote at the meeting. If you will not be attending the meeting, we request that you vote your shares as promptly as possible. You may be eligible to vote your shares in a number of ways. You may mark your votes, date, sign and return the Proxy or voting instruction form. Stockholders whose shares are registered in their own names may vote via the Internet at ADP Investor Communication Services' voting Web site (www.proxyvote.com) or telephonically by calling the telephone number shown on your Proxy Card. If you hold our shares with a broker or bank, you may also be eligible to vote via the Internet or to vote telephonically if your broker or bank participates in the proxy voting program provided by ADP Investor Communication Services. If your shares of common stock are held in an account with a broker or a bank participating in the ADP Investor Communication Services program, you may choose to vote those shares via the Internet at ADP Investor Communication Services' voting Web site (www.proxyvote.com) or telephonically by calling the telephone number shown on your voting form. See "Voting Via the Internet or By Telephone" in the Proxy Statement for further details. Any stockholder attending the meeting may vote in person, even though he, she or it has already returned a Proxy.

Sincerely,

M. Kenneth Oshman
Chairman of the Board and Chief Executive Officer

San Jose, California
April 14, 2003

ECHELON CORPORATION

PROXY STATEMENT
FOR
2003 ANNUAL MEETING OF STOCKHOLDERS

INFORMATION CONCERNING SOLICITATION AND VOTING

General

Our Board of Directors is soliciting Proxies for the 2003 Annual Meeting of Stockholders to be held in the Bay Room at Lou's Village, 1465 West San Carlos Street, San Jose, California 95126 on Friday, May 16, 2003, at 11:00 a.m., Pacific Time. The address of our principal executive office is 550 Meridian Avenue, San Jose, California 95126 and our telephone number at this address is 408-938-5200. This Proxy Statement contains important information for you to consider when deciding how to vote on the matters set forth in the attached Notice of Annual Meeting. Please read it carefully.

Proxy materials, which include the Proxy Statement, Proxy, letter to stockholders and Form 10-K for the fiscal year ended December 31, 2002, were first mailed to stockholders on or about April 14, 2003.

Costs of Solicitation

We will pay the costs of soliciting Proxies from stockholders. We are required to request brokers and nominees who hold our common stock in their name to furnish our Proxy materials to beneficial owners of such common stock. We may reimburse such firms and nominees for their reasonable expenses in forwarding the Proxy materials to these beneficial owners. Certain of our directors, officers and employees may solicit Proxies on our behalf, without additional compensation, personally or by written communication, telephone, facsimile or other electronic means.

QUESTIONS AND ANSWERS

Q: Who can vote at the meeting?

A: Our Board of Directors set March 31, 2003 as the record date for the Annual Meeting. All stockholders who owned Echelon common stock at the close of business on March 31, 2003 may attend and vote at the Annual Meeting. Each stockholder is entitled to one vote for each share of common stock held on all matters to be voted on. Stockholders do not have the right to cumulate votes. On March 31, 2003, 39,860,219 shares of our common stock were outstanding.

Q: How many votes do you need to hold the meeting?

A: Shares are counted as present at the meeting if you:

- are present and vote in person at the meeting; or
- have properly submitted a Proxy Card or voted by telephone or via the Internet.

A majority of Echelon's outstanding shares as of the record date must be present at the meeting in order to hold the meeting and conduct business. This is called a quorum.

Q: What proposals will be voted on at the meeting?

A: There are two proposals scheduled to be voted on at the meeting:

- Election of the nominees for director set forth in this Proxy Statement; and
- Ratification of the appointment of KPMG LLP as our independent auditors for the fiscal year ending December 31, 2003.

Q: How are votes counted?

A: You may vote either "FOR", "AGAINST" or "WITHHOLD" with respect to each nominee for our Board of Directors. You may vote "FOR," "AGAINST" or "ABSTAIN" on the other proposal. If you abstain from voting on the other proposal, it has the same effect as a vote against. If you just sign your Proxy Card with no further instructions, your shares will be counted as a yes vote "FOR" each Director and "FOR" ratification of the appointment of our independent auditors. If you do not vote and you hold your shares in a brokerage account in your broker's name (this is called "street name"), your shares will not be counted in the tally of the number of shares cast "FOR," "AGAINST" or "ABSTAIN" on any proposal where your broker does not have discretionary authority to vote, and therefore will have the effect of reducing the number of shares needed to approve any of those items. However, these shares held in street name that are not voted (known as "broker non-votes") may be counted for the purpose of establishing a quorum for the meeting. Voting results are tabulated and certified by IVS Associates, Inc., an affiliate of ADP Investor Communication Services.

Q: What is the voting requirement to approve each of the proposals?

A: For the election of directors, the three (3) individuals receiving the highest number of "FOR" votes will be elected. Votes "AGAINST" or "WITHHOLD" and broker non-votes have no legal effect on the election of directors due to the fact that such elections are by a plurality. Proposal Two requires the affirmative "FOR" vote of a majority of the shares of our outstanding common stock represented, in person or by proxy, and entitled to vote.

Q: How can I vote my shares in person at the meeting?

A: Shares held directly in your name as the stockholder of record may be voted in person at the meeting. If you choose to do so, please bring the enclosed Proxy Card or proof of identification to the meeting. If you hold your shares in street name, you must request a legal proxy from your stockbroker in order to vote at the meeting.

Q: How can I vote my shares without attending the meeting?

A: Whether you hold shares directly as a stockholder of record or beneficially in street name, you may vote without attending the meeting. You may vote by granting a proxy or, for shares held in street name, by submitting voting instructions to your stockbroker or nominee. In most cases, you will be able to do this by telephone, using the Internet or by mail. Please refer to the summary instructions included on your Proxy Card. For shares held in street name, a voting instruction card will be included by your stockbroker or nominee.

BY TELEPHONE OR THE INTERNET — If you have telephone or Internet access, you may submit your proxy by following the "Vote by Telephone" or "Vote by Internet" instructions on the Proxy Card.

BY MAIL — You may do this by signing your Proxy Card or, for shares held in street name, by following the voting instruction card included by your stockbroker or nominee and mailing it in the enclosed, postage prepaid envelope. If you provide specific voting instructions, your shares will be voted as you have instructed.

Q: How can I change my vote after I return my Proxy Card?

A: You may revoke your proxy and change your vote at any time before the final vote at the meeting. You may do this by signing a new Proxy Card with a later date or by attending the meeting and voting in person. Attending the meeting will not revoke your proxy unless you specifically request it.

Q: What is Echelon's voting recommendation?

A: Our Board of Directors recommends that you vote your shares "FOR" each of the three nominees to our Board of Directors and "FOR" ratification of the appointment of our independent auditors.

Q: Where can I find the voting results of the meeting?

A: The preliminary voting results will be announced at the meeting. The final results will be published in our first quarterly report on Form 10-Q filed after the date of the meeting.

DEADLINE FOR RECEIPT OF STOCKHOLDER PROPOSALS

Our stockholders may submit proposals that they believe should be voted upon at the Annual Meeting or nominate persons for election to our Board of Directors. Pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended ("Rule 14a-8"), some stockholder proposals may be eligible for inclusion in our 2004 Proxy Statement. Any such stockholder proposals must be submitted in writing to the attention of the Secretary, Echelon Corporation, 550 Meridian Ave., San Jose, California 95126, no later than December 16, 2003, or the date which is 120 calendar days prior to the anniversary of the mailing date of this Proxy Statement. Stockholders interested in submitting such a proposal are advised to contact knowledgeable legal counsel with regard to the detailed requirements of applicable securities laws. The submission of a stockholder proposal does not guarantee that it will be included in our 2004 Proxy Statement.

Alternatively, under our Bylaws, a proposal or a nomination that the stockholder does not seek to include in our 2004 Proxy Statement pursuant to Rule 14a-8 may be submitted in writing to the Secretary, Echelon Corporation, 550 Meridian Ave., San Jose, California 95126, for the 2004 Annual Meeting of Stockholders not less than 20 days nor more than 60 days prior to the date of such meeting. Note, however, that in the event we provide less than 30 days notice or prior public disclosure to stockholders of the date of the 2004 Annual Meeting, any stockholder proposal or nomination not submitted pursuant to Rule 14a-8 must be submitted to us not later than the close of business on the tenth day following the day on which notice of the date of the 2004 Annual Meeting was mailed or public disclosure was made. For example, if we provide notice of our 2004 Annual Meeting on April 15, 2004, for a 2004 Annual Meeting on May 10, 2004, any such proposal or nomination will be considered untimely if submitted to us after April 25, 2004. For purposes of the above, "public disclosure" means disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service, or in a document publicly filed by us with the Securities and Exchange Commission (the "SEC"). As described in our Bylaws, the stockholder submission must include certain specified information concerning the proposal or nominee, as the case may be, and information as to the stockholder's ownership of our common stock. If a stockholder gives notice of such a proposal after the deadline computed in accordance with our Bylaws (the "Bylaw Deadline"), the stockholder will not be permitted to present the proposal to the stockholders for a vote at the 2004 Annual Meeting.

The rules of the SEC also establish a different deadline for submission of stockholder proposals that are not intended to be included in our Proxy Statement with respect to discretionary voting (the "Discretionary Vote Deadline"). The Discretionary Vote Deadline for the 2004 Annual Meeting is February 29, 2004, or the date which is 45 calendar days prior to the anniversary of the mailing date of this Proxy Statement. If a stockholder gives notice of such a proposal after the Discretionary Vote Deadline, our Proxy holders will be allowed to use their discretionary voting authority to vote against the stockholder proposal when and if the proposal is raised at the 2004 Annual Meeting.

Because the Bylaw Deadline is not capable of being determined until we publicly announce the date of our 2004 Annual Meeting, it is possible that the Bylaw Deadline may occur after the Discretionary Vote Deadline. In such a case, a proposal received after the Discretionary Vote Deadline but before the Bylaw Deadline would be eligible to be presented at the 2004 Annual Meeting and we believe that our Proxy holders at such meeting would be allowed to use the discretionary authority granted by the Proxy to vote against the proposal at such meeting without including any disclosure of the proposal in the Proxy Statement relating to such meeting.

We have not been notified by any stockholder of his, her or its intent to present a stockholder proposal from the floor at the 2003 Annual Meeting. The enclosed Proxy grants the Proxy holders discretionary authority to vote on any matter properly brought before the 2003 Annual Meeting, including any stockholder proposals received between the date of this Proxy Statement and the Bylaw Deadline for the 2003 Annual Meeting, which is April 24, 2003, or the date which is ten calendar days after the date this Proxy Statement is mailed.

PROPOSAL ONE

ELECTION OF DIRECTORS

General

We currently have eight members on our Board of Directors. Our Board of Directors is divided into three classes, with each director serving a three-year term and one class being elected at each year's Annual Meeting of Stockholders. Directors Robert J. Finocchio, Jr., Armas Clifford Markkula, Jr. and Robert R. Maxfield are the Class B directors whose terms expire at the 2003 Annual Meeting of Stockholders and they have been nominated by our Board of Directors for reelection at Annual Meeting of Stockholders to be held May 16, 2003. Directors Michael E. Lehman, Richard M. Moley and Arthur Rock are the Class C directors whose terms will expire at the 2004 Annual Meeting of Stockholders, and M. Kenneth Oshman and Larry W. Sonsini are the Class A directors whose terms will expire at the 2005 Annual Meeting of Stockholders. All of the directors, including the Class B nominees, are incumbent directors. M. Francesco Tatò resigned from our Board of Directors in June 2002. Mr. Lehman was appointed a Class C director by the other members of our Board of Directors in November 2002. There are no family relationships among any of our directors or executive officers, including any of the nominees mentioned above. Unless otherwise instructed, the holders of Proxies solicited by this Proxy Statement will vote the Proxies received by them for the three Class B nominees. In the event that any nominee is unable or declines to serve as a director at the time of the Annual Meeting, the Proxy holders will vote for a nominee designated by the present Board of Directors to fill the vacancy. We are not aware of any reason that any nominee will be unable or will decline to serve as a director. Our Board of Directors recommends a vote "FOR" the election of each of the Class B nominees listed above.

Nominees

The names of the members of our Board of Directors, including the Class B nominees, their ages as of March 31, 2003 and certain information about them, are set forth below.

Name	Age	Principal Occupation
M. Kenneth Oshman (1)	62	Chairman of the Board and Chief Executive Officer of Echelon
Robert J. Finocchio, Jr. (2)(3)	52	Corporate director, private investor and part time professor
Michael E. Lehman (3)	52	Financial consultant
Armas Clifford Markkula, Jr. (2)	61	Vice Chairman of our Board of Directors of Echelon
Robert R. Maxfield (2)(4)	61	Private investor
Richard M. Moley (4)	64	Private investor
Arthur Rock (3)(5)	76	Principal of Arthur Rock & Co.
Larry W. Sonsini (5)	62	Chairman and Chief Executive Officer of Wilson Sonsini Goodrich & Rosati, P.C.

(1) Member of the Stock Option Committee.

(2) Denotes nominee for election at the 2003 Annual Meeting of Stockholders.

(3) Member of the Audit Committee.

(4) Member of the Compensation Committee.

(5) Member of the Nominating and Corporate Governance Committee.

M. Kenneth Oshman has been Chief Executive Officer of our company since December 1988 and Chairman of our Board of Directors since September 1989. He also served as our President from 1988 to 2001. Mr. Oshman, with three associates, founded ROLM Corporation, a telecommunications equipment company, in 1969. He was Chief Executive Officer, President and a director at ROLM from its founding until its merger with IBM in 1984. Following the merger, he became a Vice President of IBM and a member of its Corporate Management Board. He remained in that position until 1986. Prior to founding ROLM, Mr. Oshman was a member of the technical staff at Sylvania Electric Products from 1963 to 1969. Mr. Oshman also serves as a director of Sun Microsystems and Knight-Ridder. Mr. Oshman earned B.A. and B.S.E.E. degrees from Rice University and M.S. and Ph.D. degrees in Electrical Engineering from Stanford University.

Robert J. Finocchio, Jr. has been a director of our company since August 1999. Mr. Finocchio served as Chairman of the Board of Informix Corporation, an information management software company, from August 1997 to September 2000. Since September 2000, Mr. Finocchio has been a dean's executive professor at Santa Clara University's Leavey School of Business. From July 1997 until July 1999, Mr. Finocchio served as President and Chief Executive Officer of Informix. From December 1988 until May 1997, Mr. Finocchio was employed with 3Com Corporation, a global data networking company, where he held various positions, most recently serving as President, 3Com Systems. Mr. Finocchio also serves as a director of Altera Corp., Latitude Communications and Turnstone Systems. Mr. Finocchio is also a Trustee of Santa Clara University. Mr. Finocchio holds a B.S. degree in economics from Santa Clara University and an M.B.A. degree from the Harvard Business School.

Michael E. Lehman has been a director of our company since November 2002. During the past 15 years, Mr. Lehman held various management positions at Sun Microsystems, Inc., a provider of computer systems and professional support services. While at Sun, he served as Executive Vice President from July 2002 until his resignation from his employment position in September 2002. From July 2000 to July 2002, he served as Executive Vice President, Corporate Resources and Chief Financial Officer, and as Vice President, Corporate Resources and Chief Financial Officer from January 1998 to July 2000. He served as Vice President and Chief Financial Officer from February 1994 to January 1998. Mr. Lehman held various positions in the finance organization of Sun from August 1987 to February 1994. Prior to his tenure at Sun, Mr. Lehman was a senior manager in the San Francisco office of PricewaterhouseCoopers, the international accounting firm, where he was responsible for audits of multinational entities. Mr. Lehman is also a director of Sun Microsystems, MGIC Investment Corporation, Mercator Software and NetIQ Corporation. Mr. Lehman holds a B.B.A. degree in accounting from the University of Wisconsin-Madison.

Armas Clifford Markkula, Jr. is the founder of our company and has served as a director since 1988. He has been Vice Chairman of our Board of Directors since 1989. Mr. Markkula was Chairman of the Board of Apple Computer, Inc. from January 1977 to May 1983 and from October 1993 to February 1996 and was a director from 1977 to 1997. A founder of Apple, he held a variety of positions there, including President/Chief Executive Officer and Vice President of Marketing. Prior to founding Apple, Mr. Markkula was with Intel Corporation as Marketing Manager, Fairchild Camera and Instrument Corporation as Marketing Manager in the Semiconductor Division, and Hughes Aircraft as a member of the technical staff in the company's research and development laboratory. Mr. Markkula is a trustee of Santa Clara University. Mr. Markkula received B.S. and M.S. degrees in Electrical Engineering from the University of Southern California.

Robert R. Maxfield has been a director of our company since 1989. He was a co-founder of ROLM in 1969, and served as Executive Vice President and a director until ROLM's merger with IBM in 1984. Following the merger, he continued to serve as Vice President of ROLM until 1988. Since 1988, he has been a private investor, and is a consulting professor in the Management Science and Engineering Department at Stanford University. Dr. Maxfield was a partner with Kleiner, Perkins, Caufield & Byers, a venture capital firm, from 1989 to 1992. Dr. Maxfield received B.A. and B.S.E.E. degrees from Rice University, and M.S. and Ph.D. degrees in Electrical Engineering from Stanford University.

Richard M. Moley has been a director of our company since February 1997. Since August 1997, Mr. Moley has been a private investor. From July 1996 to August 1997, he served as Senior Vice President, Wide Area Business Unit and as a director of Cisco Systems, following Cisco Systems' purchase of StrataCom, Inc., where he was Chairman of the Board, Chief Executive Officer and President. Mr. Moley also serves as a director of Linear Technology, Netro Corporation and Spirent PLC. Mr. Moley received a B.S. degree in Electrical Engineering from Manchester University, an M.S. degree in Electrical Engineering from Stanford University and an M.B.A. degree from Santa Clara University.

Arthur Rock has been a director of our company since 1988. Mr. Rock has been Principal of Arthur Rock & Co., a venture capital firm, since 1969. Mr. Rock also serves as a director of The Nasdaq Stock Market, Inc. Mr. Rock received a B.S. degree in Political Science and Finance from Syracuse University and an M.B.A. degree from the Harvard Business School.

Larry W. Sonsini has been a director of our company since 1993. Mr. Sonsini serves as Chairman and Chief Executive Officer of the law firm of Wilson Sonsini Goodrich & Rosati, P.C., where he has practiced since 1966. Mr. Sonsini also serves as a director of Brocade Communications Systems, Lattice Semiconductor Corporation, LSI Logic and Pixar. Mr. Sonsini received an A.B. degree in Political Science and Economics and an L.L.B. degree from the University of California at Berkeley.

Board Meetings and Committees

Our Board of Directors held five meetings in 2002. Each director is expected to attend each meeting of our Board of Directors and those Committees on which he serves. Each incumbent director attended at least 75% of our Board of Directors and Committee meetings during 2002 held during the period for which such director has been a director or member of a committee, except for Armas Clifford Markkula, Jr., who attended 71% of the applicable Board of Directors and Committee meetings in 2002. Certain matters were approved by our Board of Directors or a Committee of our Board of Directors by unanimous written consent. Our Board of Directors currently has a standing Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. The Audit Committee has a written charter that was approved by our Board of Directors in November 2002, a copy of which is attached as Appendix A. The Compensation Committee and the Nominating and Corporate Governance Committee each has a written charter that has been approved by our Board of Directors, copies of which can be viewed at the investor relations section of our website at www.echelon.com. Pursuant to our 1997 Stock Option Plan, our Board delegated authority to Mr. Oshman to grant stock options to employees who are not executive officers of up to a maximum of 25,000 shares per person per year and, generally, up to an aggregate of 250,000 shares per year. The Compensation Committee, Audit Committee, and Nominating and Corporate Governance Committee are described as follows:

Audit Committee: The current members of the Audit Committee are Robert J. Finocchio, Jr., Michael E. Lehman and Arthur Rock. Mr. Lehman was appointed to the Audit Committee in November 2002 in replacement of Robert R. Maxfield, who was appointed to the Audit Committee in replacement of Armas Clifford Markkula, Jr. in October 2002. The Audit Committee held three meetings in 2002. The purposes of the Audit Committee are to:

- oversee our accounting and financial reporting processes and the internal and external audits of the financial statements;
- assist our Board of Directors in the oversight and monitoring of (i) the integrity of our financial statements, (ii) our compliance with legal and regulatory requirements, (iii) the independent auditor's qualifications, independence and performance, and (iv) our internal accounting and financial controls;
- outline to our Board of Directors the results of its monitoring and recommendations derived therefrom and improvements made, or to be made, in internal accounting controls;
- prepare the report that the rules of the Securities and Exchange Commission require to be included in our annual proxy statement;
- appoint independent auditors; and
- provide to our Board of Directors such additional information and materials as it may deem necessary to make our Board of Directors aware of significant financial matters that require the attention of our Board of Directors.

The responsibilities of the Audit Committee include the continuous review of the adequacy of our system of internal controls; oversight of the work of our independent auditors, including a post-audit review of the financial statements and audit findings; oversight of compliance with SEC requirements regarding audit related matters;

review, in conjunction with counsel, any legal matters that could significantly impact our financial statements; and oversight and review of our information technology and management information systems policies and risk management policies, including our investment policies.

Compensation Committee: The current members of the Compensation Committee are Robert R. Maxfield and Richard M. Moley. The Compensation Committee held two meetings in 2002. The purposes of the Compensation Committee are to:

- discharge the responsibilities of our Board of Directors relating to compensation of our executive officers;
- approve and evaluate executive officer compensation plans, policies and programs; and
- produce an annual report on executive compensation for inclusion in our proxy statement.

The responsibilities of the Compensation Committee include annually reviewing and approving, for our Chief Executive Officer and our other executive officers, (i) annual base salary, (ii) annual incentive bonus, including the specific goals and amount, (iii) equity compensation, (iv) employment agreements, severance arrangements and change in control agreements and provisions and (v) any other benefits, compensation or arrangements; and conducting an annual review of the performance of our Chief Executive Officer.

Nominating and Corporate Governance Committee: The current members of the Nominating and Corporate Governance Committee are Arthur Rock and Larry Sonsini. The Nominating and Corporate Governance Committee was formed in November 2002 and held no meetings in 2002. The purposes of the Nominating and Corporate Governance Committee are to:

- assist our Board of Directors by identifying prospective director nominees and to recommend to our Board of Directors the director nominees for the next annual meeting of stockholders;
- develop and recommend to our Board of Directors the governance principles applicable to our company;
- oversee the evaluation of our Board of Directors and management; and
- recommend to our Board of Directors director nominees for each committee.

The responsibilities of the Nominating and Corporate Governance Committee include evaluating the composition, organization and governance of our Board of directors and its committees, including determining future requirements; receiving and evaluating complaints that may be rendered under our code of business conduct and ethics and proposing actions in response thereto; overseeing of the performance evaluation process of our Board of Directors; making recommendations to our Board of Directors concerning the appointment of directors to committees, selecting Board committee chairs and proposing the slate of directors for election; and making recommendations to our Board of Directors regarding compensation for non-employee directors and Board committee members. Proposed candidates for nomination as director received from stockholders will be considered by the Nominating and Corporate Governance Committee. Any such recommendations may be submitted in writing to the attention of the Secretary, Echelon Corporation, 550 Meridian Avenue, San Jose, California 95126.

We have determined that all directors serving as members of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are independent under the rules prescribed as of the date of this Proxy Statement by Nasdaq and the New York Stock Exchange. In addition, in January 2003, our Board appointed Arthur Rock as our Presiding Director. Under our Corporate Governance Guidelines, adopted by our Board of Directors in November 2002, the Presiding Director was selected by our outside directors and assumed the responsibilities of chairing meetings of outside directors, serving as the liaison between our Chief Executive Officer and our independent directors, approving Board of Directors meeting agendas and schedules and information flow to our Board of Directors and such further responsibilities that the outside directors as a whole designate from time to time. Our Corporate Governance Guidelines also give our Board of Directors responsibility over such matters as overseeing our Chief Executive Officer and other senior management in the competent and ethical operation of our Company, gathering and analyzing information obtained from management, counsel and expert advisors, and overseeing and monitoring the effectiveness of governance practices. A copy of our Corporate Governance Guidelines can be viewed at the investor relations section of our website at www.echelon.com.

Director Compensation

In 2002, members of our Board of Directors did not receive any cash consideration for serving on our Board of Directors. In November 2002, we determined that in consideration for service on our Board of Directors, each non-employee director shall receive a cash payment of $20,000 per fiscal year, to be payable on or before the day of the first meeting of our Board of Directors in each fiscal year. In addition, we determined that in consideration for service on our Board of Directors or on one or more of our Compensation and/or Nominating and Corporate Governance Committees of our Board of Directors, each non-employee director shall receive a cash payment of $1,000 per Board of Directors meeting or Committee meeting attended, to be payable on the date of each such meeting so attended. In addition, we determined that in consideration of the significantly greater time commitment and potential risk exposure for serving as a member of our Audit Committee, each non-employee director shall receive a cash payment of $2,000 per Audit Committee meeting attended, to be payable on the date of each such meeting so attended. In addition, nonemployee directors are eligible to participate in our 1998 Director Option Plan which provides for the automatic grant of an option to purchase 25,000 shares of common stock to each nonemployee director who first becomes a nonemployee director after May 29, 1998. In addition, each nonemployee director shall automatically be granted a 10,000 share option on the date of each annual meeting of stockholders, provided he or she is re-elected to our Board of Directors or otherwise remains on our Board of Directors on such date and provided that on such date he or she shall have served on our Board of Directors for at least the preceding six months. All options granted under this plan are fully vested at grant. During 2002, Mr. Finocchio, Mr. Markkula, Mr. Maxfield, Mr. Moley, Mr. Rock, Mr. Tatò and Mr. Sonsini were each granted a 10,000 share option at a per share exercise price of $16.36, and Mr. Lehman was granted a 25,000 share option at a per share exercise price of $13.58. Mr. Tatò's option expired unexercised in September 2002 following his resignation from our Board of Directors.

PROPOSAL TWO

RATIFICATION OF APPOINTMENT OF INDEPENDENT AUDITORS

With authority granted by our Board of Directors, the Audit Committee of our Board of Directors has appointed KPMG LLP as our independent auditors to audit our consolidated financial statements for the fiscal year ending December 31, 2003, and our Board of Directors recommends that the stockholders vote "FOR" ratification of such appointment.

KPMG LLP was appointed as our independent public accountants on March 21, 2002, when we retained KPMG LLP to perform the annual audit of our financial statements for the fiscal year ending December 31, 2002. A representative of KPMG LLP is expected to be present at the Annual Meeting, will have an opportunity to make a statement if he or she so desires and is expected to be available to respond to appropriate questions from the stockholders.

SHARE OWNERSHIP BY PRINCIPAL STOCKHOLDERS AND MANAGEMENT

To our knowledge, the following table sets forth certain information with respect to beneficial ownership of our common stock, as of March 31, 2003, for:

- each person who we know beneficially owns more than 5% of our common stock;
- each of our directors;
- each of our executive officers set forth in the Summary Compensation Table; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Except as indicated by footnote, and subject to applicable community property laws, each person identified in the table possesses sole voting and investment power with respect to all shares of common stock shown held by them. The number of shares of common stock outstanding used in calculating the percentage for each listed person includes shares of common stock underlying options or warrants held by such person that are exercisable within 60 calendar days of March 31, 2003, but excludes shares of common stock underlying options or warrants held by any other person. Percentage of beneficial ownership is based on 39,860,219 shares of common stock outstanding as of March 31, 2003.

Name	Shares Beneficially Owned	Percentage Beneficially Owned
5% Stockholders:		
ENEL S.p.A. (1)	3,000,000	7.5%
Directors and Executive Officers:		
M. Kenneth Oshman (2)	5,999,081	14.8%
Armas Clifford Markkula, Jr. (3)	1,817,038	4.6%
Beatrice Yormark (4)	1,040,731	2.6%
Oliver R. Stanfield (5)	1,028,831	2.6%
Arthur Rock (6)	769,563	1.9%
Robert R. Maxfield (7)	455,037	1.1%
Frederik Bruggink (8)	325,832	*
Peter A. Mehring (9)	284,375	*
Richard M. Moley (10)	185,589	*
Larry W. Sonsini (10)	63,261	*
Robert J. Finocchio, Jr. (11)	75,000	*
Michael E. Lehman (12)	25,000	*
All directors and executive officers as a group (14 persons) (13)	12,152,462	29.1%

* Less than 1%.

(1) Principal address is Viale Regina Margherita 137, Rome, Italy 00198.

(2) Mr. Oshman's principal address is c/o Echelon Corporation, 550 Meridian Avenue, San Jose, California 95126. Includes 4,672,133 shares held by M. Kenneth Oshman and Barbara S. Oshman, Trustees of the Oshman Trust dated July 10, 1979, 488,428 shares held by O-S Ventures, of which Mr. Oshman is general partner, and an aggregate of 38,520 shares held by trusts, not for the benefit of Mr. Oshman, of which Mr. Oshman serves as trustee and as to which Mr. Oshman disclaims beneficial ownership. Includes options to purchase 800,000 shares of common stock exercisable within 60 calendar days of March 31, 2003, of which 497,915 shares are vested at March 31, 2003.

(3) Includes 1,627,610 shares held by Armas Clifford Markkula, Jr. and Linda Kathryn Markkula, Trustees of the Restated Arlin Trust dated December 12, 1990, and 151,928 shares held by the Markkula Family Limited Partnership. Mr. Markkula and his spouse disclaim beneficial ownership of all but 27,500 of the shares held by the Markkula Family Limited Partnership. Includes options to purchase 37,500 shares of common stock exercisable within 60 calendar days of March 31, 2003, all of which shares are vested at March 31, 2003.

(4) Includes 819,900 shares held by Justin C. Walker and Beatrice Yormark, Trustees of the Walker-Yormark Family Trust dated October 2, 1992. Includes options to purchase 220,831 shares of common stock exercisable within 60 calendar days of March 31, 2003, of which 207,811 shares are vested at March 31, 2003.

(5) Includes 637,400 shares by held by Oliver Rueben Stanfield and Janet Helen Stanfield, Trustees of the Stanfield Family Trust UDT dated February 2, 2001. Includes an aggregate of 170,600 shares held in individual retirement accounts for the benefit of Mr. Stanfield and his spouse. Includes options to purchase 220,831 shares of common stock exercisable within 60 calendar days of March 31, 2003, of which 207,811 shares are vested at March 31, 2003.

(6) Includes 20,000 shares held by a trust for the benefit of Mr. Rock's spouse, of which Mr. Rock serves as trustee, and as to which Mr. Rock disclaims beneficial ownership, and 2,000 shares held by a trust, not for the benefit of Mr. Rock, of which Mr. Rock serves as trustee and as to which Mr. Rock disclaims beneficial ownership. Includes options to purchase 50,000 shares of common stock exercisable within 60 calendar days of March 31, 2003, all of which shares are vested at March 31, 2003.

(7) Includes options to purchase 50,000 shares of common stock exercisable within 60 calendar days of March 31, 2003, all of which shares are vested at March 31, 2003.

(8) Includes options to purchase 103,332 shares of common stock exercisable within 60 calendar days of March 31, 2003, of which 76,666 shares are vested at March 31, 2003. We have the right, but not the obligation, to repurchase 3,125 shares owned by Mr. Bruggink if he should discontinue his employment with our company. This repurchase right expires on various dates through June 25, 2003.

(9) Includes options to purchase 194,791 shares of common stock exercisable within 60 calendar days of March 31, 2003, of which 171,978 shares are vested at March 31, 2003.

(10) Includes options to purchase 50,000 shares of common stock exercisable within 60 calendar days of March 31, 2003, all of which shares are vested at March 31, 2003.

(11) Includes options to purchase 55,000 shares of common stock exercisable within 60 calendar days of March 31, 2003, all of which shares are vested at March 31, 2003.

(12) Represents options to purchase 25,000 shares of common stock exercisable within 60 calendar days of March 31, 2003, all of which shares are vested at March 31, 2003.

(13) Includes options to purchase an aggregate of 1,935,409 shares of common stock exercisable within 60 calendar days of March 31, 2003, of which 1,549,472 shares are vested at March 31, 2003. We have the right, but not the obligation, to repurchase 3,125 shares owned by one of our executive officers if he should discontinue his employment with our company. This repurchase right expires on various dates through June 25, 2003.

OTHER INFORMATION

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our executive officers, directors and persons who own more than 10% of a registered class of our equity securities to file certain reports with the SEC regarding ownership of, and transactions in, our securities. Such officers, directors and 10% stockholders are also required by the SEC to furnish us with copies of all Section 16(a) forms that they file.

Based solely on our review of such forms furnished to us and written representations from certain reporting persons, we believe that all filing requirements applicable to our executive officers, directors and more than 10% stockholders were complied with during the fiscal year ended December 31, 2002, except that our President, Beatrice Yormark, was late with one Form 4 filing.

Certain Transactions

Loans to Employees

In April 2001, we loaned Peter Mehring, our Senior Vice President of Engineering, an aggregate of $1,000,000 which Mr. Mehring used to pay his federal income taxes. Mr. Mehring issued to us two promissory notes, each in the principal amount of $500,000 and bearing interest at the rate of 4.54% per annum, compounded monthly. One of the notes is secured by a second deed of trust on his primary residence (the “First Note”) and the other note was secured by a second deed of trust on a second residence (the “Second Note”). The interest accruing under the First Note is due and payable in monthly installments over the three-year term of the note, and the principal is due and payable on April 6, 2004, subject to earlier repayment upon the occurrence of certain events. The interest accruing under the Second Note was due and payable in monthly installments over the three-year term of the note, and the principal was due and payable on April 6, 2004, subject to earlier repayment upon the occurrence of certain events. The Second Note and accrued and unpaid interest thereon were paid in full on February 21, 2003. The terms of these loans have never been amended.

On October 29, 2001, we loaned Russell Harris, our Senior Vice President of Operations, $1,000,000 to purchase a principal residence. Mr. Harris issued to us a promissory note secured by residential real estate. The note bears interest at the rate of 4.5% per annum, compounded monthly. The interest accruing under the note is due and payable in monthly installments over the nine year term of the note, and the principal is due and payable on October 29, 2010, subject to earlier repayment upon the occurrence of certain events. The terms of this loan have never been amended.

On December 31, 2001, we loaned Frederik Bruggink, our Senior Vice President and General Manager — Service Provider Group, $700,000 to exercise stock options. Mr. Bruggink issued to us a promissory note secured by a security interest in personal assets. The note bore interest at the rate of 2.48% per annum, compounded monthly. The interest accruing under the note was due and payable in monthly installments over the one year term of the note, and the principal was due and payable on December 31, 2002, subject to earlier repayment upon the occurrence of certain events. The note and accrued and unpaid interest thereon were paid in full on February 7, 2003.

On April 2, 2002, we loaned Mr. Bruggink, through our Dutch subsidiary, €239,690 (approximately $211,000), to reimburse us for tax withholding amounts remitted to the Dutch tax authorities on Mr. Bruggink's behalf. The loan bore interest at the rate of 7.0% per annum, compounded monthly. The interest accruing under the note was due and payable in monthly installments over the six-month term of the note, and the principal was due and payable on September 30, 2002, subject to earlier repayment upon the occurrence of certain events. The note and accrued and unpaid interest thereon were paid in full in three installments in September 2002, with the last installment paid on September 23, 2002.

Agreements with ENEL

Pursuant to a research and development and technological cooperation agreement, dated June 28, 2000, as amended, between our company and ENEL Distribuzione SpA, an affiliate of ENEL S.p.A. ("ENEL"), we are cooperating with ENEL to integrate our LonWorks system into ENEL's remote metering management project in Italy. Under this project, ENEL intends to provide digital electricity meters and a complete home networking infrastructure to Italian households over a three-year period. If the ENEL project achieves its targeted volumes during 2003, we believe that revenues attributable to this project will account for the majority of our revenues for the year ending December 31, 2003. We continue to devote significant product development resources to this project.

Pursuant to a common stock purchase agreement, dated June 30, 2000, between our company and ENEL, ENEL agreed to purchase, for cash, three million newly issued shares of our common stock for a purchase price to be based on the average trading price prior to the closing (subject to a minimum price of $87.3 million and a maximum price of $130.9 million). The closing of this stock purchase occurred on September 11, 2000. Based on the average price of our common stock prior to that date, the total purchase price for the three million shares was $130.9 million and after deducting expenses associated with the transaction, we received $130.7 million. Until the earlier of September 11, 2003 or 30 days following the termination of the research and development and technological cooperation agreement with ENEL Distribuzione, ENEL shall not, except under limited circumstances, sell or otherwise transfer such shares. The stock purchase agreement also gives ENEL the right to nominate a member of our Board of Directors as long as ENEL owns at least two million shares of our common stock. As a condition to the closing of the stock purchase agreement, our directors and our Chief Financial Officer agreed to enter into a voting agreement with ENEL in which each of them agreed to vote the shares of our company's common stock that they beneficially own or control in favor of ENEL's nominee to our Board of Directors. M. Francesco Tatò served as ENEL's representative on our Board of Directors from September 2000 until June 2002. ENEL has not nominated a replacement for Mr. Tatò on our Board of Directors.

Pursuant to a registration rights agreement, dated September 11, 2000, between our company and ENEL, ENEL may, subject to certain conditions and limitations, request that we register the shares purchased under the common stock purchase agreement. In the event we elect to register any of our securities, ENEL may, subject to certain limitations, include the shares purchased under the common stock purchase agreement in such registration.

Air Travel Arrangement

From time to time, Mr. Oshman, our Chairman and Chief Executive Officer, uses private air travel services for business trips for himself and for any employees accompanying him. These private air travel services are provided by certain entities controlled by Mr. Oshman or Mr. Markkula, a director of our Company. Our net cash outlay with respect to such private air travel services is no greater than comparable first class commercial air travel services. Such net outlays to date have not been material.

Legal Services

During fiscal year 2002, the law firm of Wilson Sonsini Goodrich & Rosati, P.C. acted as principal outside counsel to our company. Mr. Sonsini, a director of our company, is a member of Wilson Sonsini Goodrich & Rosati, P.C.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth information concerning the compensation that we paid during the last three fiscal years to our Chief Executive Officer and our four other most highly compensated executive officers who earned more than $100,000 during the fiscal year ended December 31, 2002. All option grants were made under our 1997 stock plan.

	Annual Compensation			Long-Term Compensation Awards	
Name and Principal Position	**Fiscal Year**	**Salary ($)**	**Bonus ($)**	**Securities Underlying Options (#)**	**All Other Compensation ($)**
M. Kenneth Oshman	2002	100,000	319,200	200,000	1,584(1)
Chairman of the Board and	2001	1	—	250,000	1,584
Chief Executive Officer	2000	1	—	100,000	1,584
Beatrice Yormark	2002	325,000	90,773	100,000	1,793(1)
President and Chief	2001	300,000	—	50,000	1,531
Operating Officer	2000	275,000	—	50,000	1,531
Oliver R. Stanfield	2002	325,000	90,773	100,000	1,815(1)
Executive Vice President &	2001	300,000	—	50,000	1,502
Chief Financial Officer	2000	275,000	—	50,000	1,386
Frederik H. Bruggink					
Senior Vice President and	2002	300,000	59,850	80,000	12,587(2)
General Manager — Service	2001	250,000	45,246	50,000	1,584
Provider Group	2000	220,000	88,640	50,000	1,584
Peter A. Mehring	2002	300,000	59,850	60,000	1,320(1)
Senior Vice President of	2001	300,000	—	50,000	1,320
Engineering	2000	275,000	—	50,000	1,320

(1) Consists of premiums paid by the Company for life insurance coverage.

(2) Includes premiums of $1,584 paid by the Company for life insurance coverage and €10,363 (approximately $11,003) in pension plan payment.

Option Grants in Last Fiscal Year

The following table sets forth certain information with respect to stock options granted to our Chief Executive Officer and our four other most highly compensated executive officers during the fiscal year ended December 31, 2002. We have never granted any stock appreciation rights. All option grants were made under our 1997 stock plan.

	Individual Grants				Potential Realizable Value At Assumed Annual Rates of Stock Price Appreciation For Option Term ($)(6)	
Name	Number of Securities Underlying Options Granted (#)	% of Total Options Granted to Employees in Fiscal Year (%)(4)	Exercise Price Per Share ($)(5)	Expiration Date	5%	10%
M. Kenneth Oshman	200,000(1)	9.1	16.35	02/22/2012	2,056,485	5,211,538
Beatrice Yormark	100,000(2)	4.6	16.35	02/22/2012	1,028,243	2,605,769
Oliver R. Stanfield	100,000(2)	4.6	16.35	02/22/2012	1,028,243	2,605,769
Frederik H. Bruggink	60,000(2)	2.7	16.35	02/22/2012	616,946	1,563,461
Frederik H. Bruggink	20,000(3)	0.9	10.52	09/20/2012	132,319	335,323
Peter A. Mehring	60,000(2)	2.7	16.35	02/22/2012	616,946	1,563,461

(1) This option was granted on February 22, 2002 and vests as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to the employee's continued employment with our company. This option may be exercised prior to full vesting, subject to the employee entering into a restricted stock purchase agreement with respect to unvested shares.

(2) All of these options were granted on February 22, 2002 and vest as to one-fourth of the shares on February 22, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to the employee's continued employment with our company.

(3) This option was granted on September 20, 2002 and vests as to one-fourth of the shares on September 20, 2003 and as to one-forty-eighth of the shares at the end of each month thereafter, subject to the employee's continued employment with our company. This option may be exercised prior to full vesting, subject to the employee entering into a restricted stock purchase agreement with respect to unvested shares.

(4) Based on a total of 2,187,750 options granted to all employees in the fiscal year ended December 31, 2002.

(5) The exercise price per share is equal to the closing price of our common stock on the date of grant or the market trading day immediately preceding the date of grant.

(6) Potential gains are net of the exercise price but before taxes associated with the exercise. The 5% and 10% assumed annual rates of compounded stock appreciation based upon the deemed fair market value are for illustrative purposes only and do not represent the Company's estimate or projection of the future common stock price. Actual gains, if any, on stock option exercises are dependent on several factors, including the Company's future financial performance, overall market conditions, and the option holder's continued employment with the Company. There can be no assurance that the amounts reflected in this table will be achieved.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table sets forth certain information for our Chief Executive Officer and our four other most highly compensated executive officers concerning shares acquired upon exercise of stock options in the fiscal year ended December 31, 2002 and exercisable and unexercisable options held as of December 31, 2002.

			Number of Securities Underlying Unexercised Options at December 31, 2002 (#)(2)		Value of Unexercised In-the-Money Options at December 31, 2002 ($)(3)	
Name	Shares Acquired on Exercise(#)	Value Realized ($)(1)	Exercisable	Unexercisable	Exercisable	Unexercisable
M. Kenneth Oshman	—	—	800,000(4)	—	1,043,050	—
Beatrice Yormark	110,000	1,298,000	179,166(5)	145,834	521,525	—
Oliver R. Stanfield	120,000	1,416,000	179,166(5)	145,834	521,525	—
Frederik H. Bruggink	—	—	74,166(6)	105,834	13,800	—
Peter A. Mehring	—	—	220,833(7)	89,167	876,775	—

(1) The value realized is based on the closing price of our common stock on the date of exercise, minus the per share exercise price, multiplied by the number of shares exercised.
(2) Certain options granted to our officers under our 1997 stock plan may be exercised immediately upon grant and prior to full vesting, subject to the optionee entering into a restricted stock purchase agreement with respect to unvested shares.
(3) The value of underlying securities is based on the $11.21 per share closing price of our common stock on December 31, 2002 minus the aggregate exercise price.
(4) Includes 412,499 vested shares and 387,501 unvested shares as of December 31, 2002.
(5) Includes 169,791 vested shares and 9,375 unvested shares as of December 31, 2002.
(6) Includes 54,166 vested shares and 20,000 unvested shares as of December 31, 2002.
(7) Includes 194,791 vested shares and 26,042 unvested shares as of December 31, 2002.

Compensation Committee Interlocks and Insider Participation

During 2002, the Compensation Committee was comprised of Robert R. Maxfield and Richard M. Moley, both of whom were nonemployee directors. No interlocking relationship exists between any member of our Board of Directors or Compensation Committee and the Board of Directors or Compensation Committee of any other company, nor has any such interlocking relationship existed in the past.

REPORT OF THE COMPENSATION COMMITTEE OF OUR BOARD OF DIRECTORS

The Compensation Committee sets the compensation of our Chief Executive Officer, reviews the design and effectiveness of compensation programs for other key executives, and approves stock option grants for our employees. The Committee is comprised entirely of outside directors who have never served as officers of our company.

The goals of the Compensation Committee are to align compensation with our performance and objectives and to attract, retain and reward executive officers and employees whose contributions are critical to the long-term success of our company.

The primary components of our executive compensation package are salary, commissions for sales executives and stock options. We set our compensation package to be competitive with the marketplace.

Salary

The level of base salary for executive officers is set based upon their scope of responsibility, level of experience and individual performance. The salary range for each position is reviewed against the Radford Survey (a third-party compensation survey) data for high-tech companies with similar sales volumes located in the same geographic area. Additionally, the Compensation Committee takes into account general business and economic conditions and current circumstances of our company.

Commission for sales executives

Our 2002 sales commission plan provided the opportunity for commission payments based on meeting our revenue and other business objectives.

Stock options

The Compensation Committee believes that the granting of stock options is an important method of rewarding and motivating our employees by aligning employees' interests with our stockholders. The Compensation Committee also recognizes that a stock incentive program is a necessary element in a competitive compensation package. The program utilizes a vesting schedule to encourage our employees to continue in the employ of our Company and to encourage employees to maintain a long-term perspective. In determining the size of stock option grants, the Compensation Committee focuses primarily on the employees' current and expected future value to our company. The Compensation Committee also considers the number of unvested options held by the employee.

Management bonus plan

On December 14, 2001, the Compensation Committee, with the approval of our Board of Directors on February 22, 2002, approved a management bonus plan for certain of our officers that provided for potential cash bonus awards, with target bonuses ranging from approximately $15,000 per year to approximately $114,000 per year (contingent on the realization of profit targets), for the fiscal year ended December 31, 2002. Actual bonuses paid ranged from $14,364 to $90,773.

Compensation of the Chief Executive Officer

On December 14, 2001, the Compensation Committee, with the approval of our Board of Directors on February 22, 2002, set Mr. Oshman's base salary at $100,000 with a targeted cash bonus, in connection with our management bonus plan, of approximately $400,000 (contingent on the realization of profit targets) for the fiscal year ended December 31, 2002.

In February 2002, the Compensation Committee, in consultation with our Board of Directors, granted Mr. Oshman an option to purchase 200,000 shares of our common stock at an exercise price of $16.35, the then current fair market value. Twenty-five percent of the option vests on February 22, 2003. The option vests at a rate of 1/48 per month thereafter until fully vested on February 22, 2006.

On January 13, 2003, the Compensation Committee, in consultation with our Board of Directors, set Mr. Oshman's base salary at $100,000 with a targeted cash bonus, in connection with our management bonus plan, of approximately $400,000 (contingent on the realization of profit targets and other measurable objectives) for the fiscal year ending December 31, 2003.

Compensation Committee

Robert R. Maxfield
Richard M. Moley

REPORT OF THE AUDIT COMMITTEE OF OUR BOARD OF DIRECTORS

The Audit Committee of our Board of Directors serves as the representative of our Board of Directors for general oversight of our financial accounting and reporting process, system of internal control, audit process, and process for monitoring compliance with laws and regulations. Our management has primary responsibility for preparing our financial statements and our financial reporting process. Our independent accountants, KPMG LLP, are responsible for expressing an opinion on the conformity of our fiscal year 2002 audited financial statements to generally accepted accounting principles. In this context, the Audit Committee hereby reports as follows:

1. The Audit Committee has reviewed and discussed the audited financial statements with our management.
2. The Audit Committee has discussed with KPMG LLP the matters required to be discussed by Statement on Auditing Standards No. 61 ("SAS No. 61"), *Communication with Audit Committees*, as modified or supplemented.
3. The Audit Committee has received the written disclosures and the letter from the independent accountants required by Independence Standards Board Standard No. 1, *Independence Discussions with Audit Committees*, as modified or supplemented, and has discussed with them their independence.
4. Based on the review and discussions referred to in paragraphs (1) through (3) above, the Audit Committee recommended to our Board of Directors, and our Board of Directors has approved, that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2002, for filing with the SEC.

Our Board of Directors has adopted a written charter for the Audit Committee, a copy of which is attached as Appendix A. Each of the members of the Audit Committee is independent as defined under the listing standards of the National Association of Securities Dealers.

Audit Committee

Robert J. Finocchio, Jr.
Michael E. Lehman
Arthur Rock

AUDIT AND RELATED FEES

Audit Fees

KPMG LLP billed us an aggregate of $224,700 in fees for professional services rendered in connection with the audit of our financial statements for the most recent fiscal year and the reviews of the financial statements included in each of our Quarterly Reports on Form 10-Q during the fiscal year ended December 31, 2002.

Financial Information Systems Design and Implementation Fees

KPMG LLP did not provide any services in connection with the design and implementation of financial information systems during 2002.

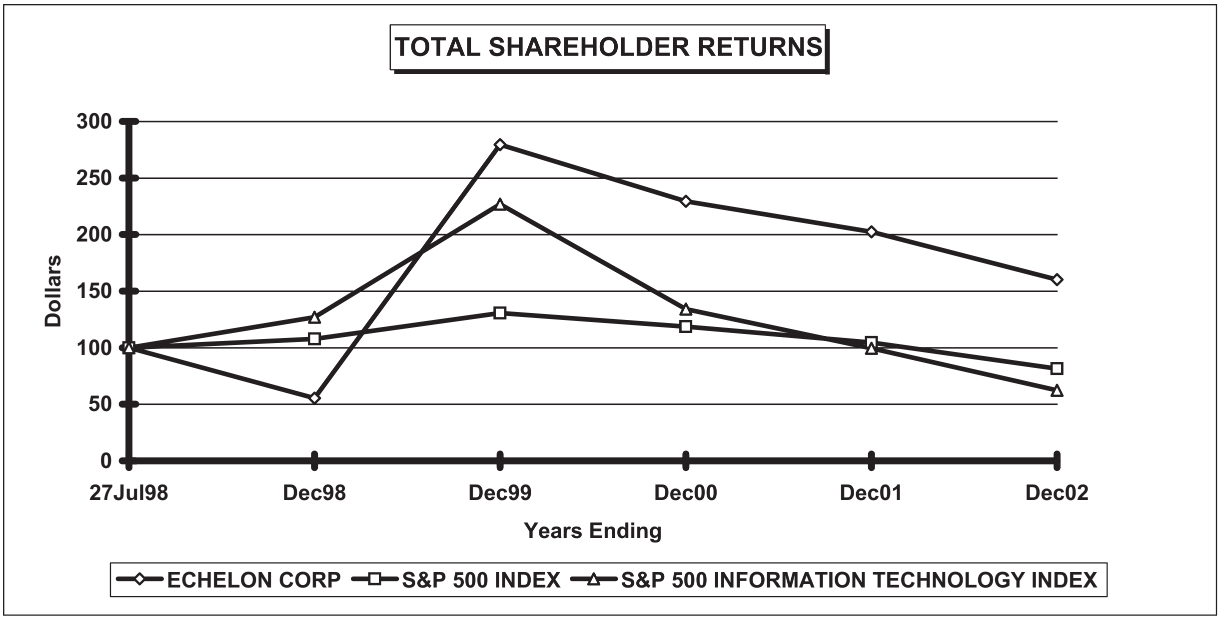
All Other Fees

During the fiscal year ended December 31, 2002, KPMG LLP billed us an aggregate of $126,060 in fees for consultation and due diligence assistance regarding various acquisitions. No fees were billed with respect to either tax compliance or tax consulting services rendered to us and our affiliates for the fiscal year ended December 31, 2002.

The Audit Committee has considered whether the non-audit services provided by KPMG LLP are compatible with maintaining the independence of KPMG LLP and has concluded that the independence of KPMG LLP is maintained and is not compromised by the services provided.

STOCK PRICE PERFORMANCE GRAPH

The graph below compares the cumulative total stockholder return on our common stock (assuming reinvestment of dividends) with the cumulative total return on the S&P 500 Index and the S&P 500 Information Technology Index (which replaced the S&P Technology 500 and is comprised of those companies in the information technology sector of the S&P 500 Index). The graph assumes that $100 was invested in our common stock on July 27, 1998, the effective date of our initial public offering, and in the S&P 500 Index and the S&P 500 Information Technology Index. Historic stock price performance is not necessarily indicative of future stock price performance.



OTHER MATTERS

As of the date hereof, our Board of Directors is not aware of any other matters to be submitted at the Annual Meeting. If any other matters properly come before the meeting, it is the intention of the persons named in the enclosed Proxy to vote the shares they represent as our Board of Directors recommends or as they otherwise deem advisable.

VOTING VIA THE INTERNET OR BY TELEPHONE

For Shares Directly Registered in the Name of the Stockholder

Stockholders with shares registered in their own names may vote those shares telephonically by calling 1-800-690-6903 (within the U.S. and Canada only, toll-free), or via the Internet at ADP Investor Communication Services' voting Web site (www.proxyvote.com).

For Shares Registered in the Name of a Broker or a Bank

A number of brokers and banks are participating in a program provided through ADP Investor Communication Services that offers telephone and Internet voting options. If your shares are held in an account with a broker or a bank participating in the ADP Investor Communication Services program, you may vote those shares telephonically by calling the telephone number shown on the voting form received from your broker or bank, or via the Internet at ADP Investor Communication Services' voting Web site (www.proxyvote.com).

General Information for All Shares Voted Via the Internet or By Telephone

Votes submitted via the Internet or by telephone must be received by 11:59 p.m., Eastern Time, on Thursday, May 15, 2003. Submitting your proxy via the Internet or by telephone will not affect your right to vote in person should you decide to attend the Annual Meeting. The telephone and Internet voting procedures are designed to authenticate stockholders' identities, to allow stockholders to give their voting instructions and to confirm that stockholders' instructions have been recorded properly. Stockholders voting via the Internet should understand that there may be costs associated with electronic access, such as usage charges from Internet access providers and telephone companies, that must be borne by the stockholder.

THE BOARD OF DIRECTORS

San Jose, California
April 14, 2003

APPENDIX A

ECHELON CORPORATION

CHARTER FOR THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

Purpose:

The purpose of the Audit Committee of Echelon Corporation (including its subsidiaries) ("**Echelon**" or the "**Company**") shall be to:

1. Oversee the accounting and financial reporting processes of the Company and the internal and external audits of the financial statements;
2. Assist the Board of Directors (the "**Board**") in the oversight and monitoring of (i) the integrity of the Company's financial statements, (ii) the Company's compliance with legal and regulatory requirements, (iii) the independent auditor's qualifications, independence and performance, and (iv) the Company's internal accounting and financial controls;
3. Outline to the Board the results of its monitoring and recommendations derived therefrom and improvements made, or to be made, in internal accounting controls;
4. Prepare the report that the rules of the Securities and Exchange Commission (the "**SEC**") require to be included in the Company's annual proxy statement;
5. Appoint independent auditors; and
6. Provide to the Board such additional information and materials as it may deem necessary to make the Board aware of significant financial matters that require Board attention.

In addition, the Audit Committee will undertake those specific duties and responsibilities listed below and such other duties as the Board of Directors may from time to time prescribe.

Membership:

The Audit Committee will consist of at least three (3) members of the Board. The members of the Audit Committee will be appointed by and will serve at the discretion of the Board of Directors. Members of the Audit Committee must meet the following criteria (as well as any criteria required by the SEC):

1. Each member will be an independent director as defined in (i) NASDAQ Rule 4200 and (ii) the rules of the SEC.
2. Each member of the Audit Committee shall be financially literate. Financial literacy shall mean the ability to read and understand, in accordance with the NASDAQ National Market Audit Committee requirements, financial statements including Echelon's balance sheet, income statement and cash flow statement.
3. At least one member must also have past employment experience in accounting or related financial management experience. The experience criterion shall include past employment in finance or accounting, requisite professional certification in accounting, or other comparable experience or background, including a current or past position as a principal financial officer or other senior officer with financial oversight responsibilities.

Responsibilities:

The responsibilities of the Audit Committee shall include:

1. Reviewing on a continuing basis the adequacy of the Company's system of internal controls, including meeting periodically with the Company's management and the independent auditors to review the adequacy of such controls and to review before release the disclosure regarding such system of internal controls required under SEC rules to be contained in the Company's periodic filings and the attestations or reports by the independent auditors relating to such disclosure.
2. Appointing, compensating and overseeing the work of the independent auditors (including resolving disagreements between management and the independent auditors regarding financial reporting) for the purpose of preparing or issuing an audit report or related work.
3. Pre-approving audit and non-audit services provided to the Company by the independent auditors (or subsequently approving non-audit services in those circumstances where a subsequent approval is necessary and permissible); in this regard, the Audit Committee shall have the sole authority to approve the hiring and firing of the independent auditors, all audit engagement fees and terms and all non-audit engagements, as may be permissible, with the independent auditors.
4. Reviewing and providing guidance with respect to the external audit and the Company's relationship with its independent auditors by (i) reviewing the independent auditors' proposed audit scope, approach and independence; (ii) obtaining on a periodic basis a statement from the independent auditors regarding relationships and services with the Company which may impact independence and presenting this statement to the Board of Directors, and to the extent there are relationships, monitoring and investigating them; (iii) reviewing the independent auditors' peer review conducted every three years; (iv) discussing with the Company's independent auditors the financial statements and audit findings, including any significant adjustments, management judgments and accounting estimates, significant new accounting policies and disagreements with management and any other matters described in SAS No. 61, as may be modified or supplemented; and (v) reviewing reports submitted to the audit committee by the independent auditors in accordance with the applicable SEC requirements.
5. Reviewing and discussing with management and the independent auditors the annual audited financial statements and quarterly unaudited financial statements, including the Company's disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations," prior to filing the Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, respectively, with the SEC.
6. Directing the Company's independent auditors to review before filing with the SEC the Company's interim financial statements included in Quarterly Reports on Form 10-Q, using professional standards and procedures for conducting such reviews.
7. Conducting a post-audit review of the financial statements and audit findings, including any significant suggestions for improvements provided to management by the independent auditors.
8. Reviewing before release the unaudited quarterly operating results in the Company's quarterly earnings release.
9. Overseeing compliance with the requirements of the SEC for disclosure of auditor's services and audit committee members, member qualifications and activities.
10. Reviewing, approving and monitoring the Company's code of ethics for its senior financial officers.
11. Reviewing management's monitoring of compliance with the Company's standards of business conduct and with the Foreign Corrupt Practices Act.
12. Reviewing, in conjunction with counsel, any legal matters that could have a significant impact on the Company's financial statements.

13. Providing oversight and review at least annually of the Company's risk management policies, including its investment policies.
14. Reviewing the Company's compliance with employee benefit plans.
15. Overseeing and reviewing the Company's policies regarding information technology and management information systems.
16. If necessary, instituting special investigations with full access to all books, records, facilities and personnel of the Company.
17. As appropriate, obtaining advice and assistance from outside legal, accounting or other advisors.
18. Reviewing and approving in advance any proposed related party transactions.
19. Reviewing its own charter, structure, processes and membership requirements.
20. Providing a report in the Company's proxy statement in accordance with the rules and regulations of the SEC.
21. Establishing procedures for receiving, retaining and treating complaints received by the Company regarding accounting, internal accounting controls or auditing matters and procedures for the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters.

In addition to the above responsibilities, the Audit Committee will undertake such other duties as the Board delegates to it, and will report, at least annually, to the Board regarding the Committee's examinations and recommendations.

Meetings:

The Audit Committee will meet at least four times each year. The Audit Committee may establish its own schedule, which it will provide to the Board of Directors in advance.

The Audit Committee will meet separately with the Chief Executive Officer and separately with the Chief Financial Officer of Echelon at such times as are appropriate to review the financial affairs of Echelon. The Audit Committee will meet with the independent auditors of Echelon at such times as it deems appropriate, to review the independent auditor's examination and management report and to fulfill the Audit Committee's responsibilities under this Charter.

Reports:

In addition to preparing the report in the Company's proxy statement in accordance with the rules and regulations of the SEC, the Audit Committee will record its summaries of recommendations to the Board in written form consistent with the Charter, which recommendations will be incorporated as a part of the minutes of the Board of Directors meeting at which those recommendations are presented.

Minutes:

The Audit Committee will maintain written minutes of its meetings, which minutes, as well as any actions by unanimous written consent, will be filed with the minutes of the meetings of the Board of Directors.

Compensation:

Members of the Audit Committee shall receive such fees, if any, for their service as Audit Committee members as may be determined by the Board of Directors or Nominating and Corporate Governance Committee in its sole discretion. Such fees may include retainers or per meeting fees. Fees may be paid in such form of consideration as is determined by the Board of Directors or Nominating and Corporate Governance Committee.

Members of the Audit Committee may not receive any compensation from the Company except the fees that they receive for service as a member of the Board of Directors or any committee thereof.

Delegation of Authority:

The Audit Committee may delegate to one or more designated members of the Audit Committee the authority to pre-approve audit and permissible non-audit services, provided such pre-approval decision is presented to the full Audit Committee at its scheduled meetings.

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

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended 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: 000-29748

ECHELON CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**77-0203595**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*

550 Meridian Avenue
San Jose, California 95126
(Address of principal executive office and zip code)

(408) 938-5200
(Registrant's telephone number, including area code)

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

Securities registered pursuant to Section 12(g) of the Act: **Common Stock $0.01 par value**

Name of each exchange which registered: **NASDAQ National Market**

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of 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 ☒ No ☐

As of June 28, 2002, the last business day of the Registrant's most recently completed second fiscal quarter, there were 39,668,949 shares of the Registrant's common stock outstanding, and the aggregate market value of such shares held by non-affiliates of the Registrant (based on the per share closing sale price of $12.88 of such shares on the Nasdaq National Market on June 28, 2002) was approximately $339.1 million. Shares of the Registrant's common stock held by each executive officer and director and by each entity that owns 5% or more of the Registrant's outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

ECHELON CORPORATION
FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2002

INDEX

DOCUMENTS INCORPORATED BY REFERENCE

(1) Certain sections of the Registrant's proxy statement filed in connection with its annual meeting of stockholders, to be held on May 16, 2003, are incorporated by reference into Part III of this Form 10-K where indicated.

FORWARD-LOOKING INFORMATION

This report contains forward-looking statements within the meaning of the U.S. federal securities laws that involve risks and uncertainties. Certain statements contained in this report are not purely historical including, without limitation, statements regarding our expectations, beliefs, intentions or strategies regarding the future that are forward-looking. These statements include those discussed in Item 1, Business, including "General," "Industry Background," "Our Solution," "Strategy," "Markets, Applications and Customers," "Products and Services" and "Product Development," in Item 2, "Properties," in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, including "Critical Accounting Policies," "Results of Operations," "Liquidity and Capital Resources," "New Accounting Standards" and "Factors That May Affect Future Results of Operations," and elsewhere in this report. In this report, the words "anticipate," "believe," "expect," "intend," "future," "moving toward" and similar expressions also identify forward-looking statements. Our actual results could differ materially from those forward-looking statements contained in this report as a result of a number of factors including, but not limited to, those set forth in the section entitled "Factors That May Affect Future Results of Operations" and elsewhere in this report. All forward-looking statements and reasons why results may differ included in this report are made as of the date of this report, and we assume no obligation to update any such forward-looking statement or reason why such results might differ.

PART I

Item 1. BUSINESS

General

We develop, market and support hardware and software products and services that allow everyday devices — such as appliances, thermostats, air conditioners, electricity meters, and lighting systems — to communicate with one another and across the Internet. These everyday devices can be collected into systems, sometimes called control networks, in which the devices communicate with one another to perform a control application. Control networks manage key functions in virtually all types of facilities that affect our daily lives — from heating, lighting, security, and elevators in buildings, to the electricity meters in homes and businesses, to the brakes in freight trains, to the equipment in sewage treatment plants, to the lights in your home. Our products and services can be used across many industries to network together everyday devices used by utilities, buildings, factories, transportation, homes and other systems.

Our products and services are based on our LonWorks® technology. Our LonWorks technology is an open standard, meaning that many official standards-making bodies have published industry standards based on all or parts of our technology and that many of our technology patents are broadly licensed without royalties or license fees. LonWorks technology also allows control networks to be interoperable, meaning that products or subsystems from multiple vendors can be integrated into a unified system without the need to develop custom hardware or software. As a result, our products allow original equipment manufacturers, or OEMs, and systems integrators, who are specialty contractors that combine products from multiple suppliers into integrated systems, to design and put into service open, interoperable control networks.

Traditionally, most commercial control systems have used closed, centrally-controlled architectures, in which the control is centralized or hard-wired. Open control networks based on LonWorks technology are an alternative to the traditional approach of closed, centralized control. We believe that closed, centrally-controlled systems are more costly to install, less reliable, and more difficult to customize than open control networks based on our technology. Compared with traditional control systems, we believe that open control networks based on our technology can reduce life-cycle costs, are more flexible than centralized systems and permit control systems to be comprised of products and services from a variety of vendors. As a result, Watch-Search control networks can enable new applications while providing improved reliability, serviceability, and functionality.

Our LonWorks control networking technology allows intelligence to be embedded into individual control devices, by allowing the devices to make independent processing decisions based on values read from locally attached sensors or feedback from local control actions. Each LonWorks device is also inherently capable of communicating the information it knows with other devices in its control network and taking actions based on information that it receives from other devices. Communications can be done across a variety of communications media, such as a twisted pair of wires or data cable, the existing power lines in a facility, radio frequency communication, or any Internet protocol-based network, such as corporate intranets or the Internet. By sensing and controlling their local environment, sharing this information with their peers, and taking actions based on information received from other devices, LonWorks devices work together to perform the desired control functions. In effect, the network itself becomes the controller, enabling control to be distributed throughout the network, eliminating the need for central controllers, significantly reducing wiring costs, and enhancing the functionality and flexibility of the control system. In addition, by connecting to the Internet, LonWorks networks allow devices that were once isolated by their physical location to be reached from anywhere in the world. Important data that previously could not be obtained can now be integrated into enterprise-wide information systems to lower costs and increase revenues. For example, a LonWorks based occupancy sensor might detect motion within a room through local sensing hardware and publish this information onto the network. Using the information from the occupancy sensor along with its own knowledge of the state of the building, a LonWorks based security alarm could decide if the motion is authorized or not and if an alarm should be sounded. A LonWorks based electronic ballast might receive this same information and turn on to illuminate the room. A LonWorks based heating system might also use this same information to restore the room to the occupants preferred temperature. All of these actions might be transmitted over the Internet to the company's headquarters to enable the company to better manage its facilities and energy costs.

Our products and services provide the infrastructure and support required to build and implement multi-vendor, open, interoperable networks of everyday devices. Our wide-ranging product offerings include transceivers, concentrator products, control modules, routers, network interfaces, development tools, and software tools and toolkits. Through our project with Enel S.p.A., the largest electric utility in Italy, we also provide products that enable electricity metering and other home networking functions to be networked across the utility's service area. Our objective is to establish our LonWorks technology and products as a leading solution for networking everyday devices for control applications.

We market our products and services to OEMs and systems integrators in the building, industrial, transportation, utility/home, and other automation markets. We sell primarily through a direct sales force in North America and other countries where we have marketing and sales operations, and expand our direct sales efforts with distributors in Europe, Japan, South America, and various Asia Pacific countries. Representative customers include Enel (including its contract manufacturers for electricity meters: China National Machinery and Equipment Import and Export Corporation, Finmek Manufacturing S.p.A., Celestica Italy S.r.L., and Jabil Circuits S.r.L.), Honeywell, TAC AB, Siemens, Invensys Intelligent Systems, Schindler Elevator, Johnson Controls, Fuji Electric, NTT Data, Samsung, and BOC Edwards.

In the third quarter of 2000, we completed a transaction with Enel whereby Enel purchased three million newly issued shares of our common stock for a purchase price of $130.7 million in cash. In the second quarter of 2000, we entered into a research and development agreement with an affiliate of Enel, under which we have been cooperating with Enel to integrate our LonWorks technology into Enel's remote metering project in Italy. Through this project, which is called the Contatore Elettronico, Enel is replacing its existing stand-alone electricity meters with networked electricity meters to 27 million customers throughout Enel's service territory. We sell a variety of electronic components and finished goods to Enel and its contract manufacturers for use in the Contatore Elettronico project. We began to ship products to Enel for use in the project in late 2000. During 2001 and 2002, we increased the volume of these shipments.

We generated an operating profit of $14.4 million in 2002, compared to net operating losses of $357,000 in 2001 and $3.8 million in 2000. We generated our first-ever operating profit in the fourth quarter of 2001 in the amount of $4.4 million, and have generated operating profits in each succeeding quarter. Our total revenues for 2002 grew to $122.8 million from $76.6 million in 2001, and $49.3 million in 2000. Enel, our largest customer during 2002 and 2001, accounted for 66.4% of total revenues for 2002, 40.5% of total revenues for 2001, and 3.1% of total revenues for 2000. These revenues included sales of components to Enel's contract manufacturers. Our second largest customer, EBV, the sole independent distributor of our products in Europe, accounted for 9.2% of total revenues for 2002, 16.9% of total revenues for 2001, and 26.5% of total revenues for 2000.

We were incorporated in California in 1988 and reincorporated in Delaware in 1989. Our corporate headquarters are located in San Jose, California. In March 2003, we received ISO 9001 certification at this facility.

Industry Background

Control systems manage key functions in a variety of facilities. For example, a common application of a control system is to allow a thermostat to communicate with other equipment in a building to automatically adjust temperature and airflow. In addition to interconnecting and monitoring heating, ventilation, and air conditioning, or HVAC, control systems are used in buildings to manage such functions as elevators, lighting, security, and access control. Electric utilities may use control systems to remotely turn power on or off to a customer, read usage information from a meter or detect a service outage. In industrial facilities, control systems are used to automate semiconductor manufacturing equipment, oil pumping stations, waste water treatment plants, textile dyeing machinery, and a myriad of other applications. In transportation systems, control systems are used to regulate such features as propulsion, braking and heating systems in trains, light rail cars, trucks, buses, and other vehicles. In homes, control systems have seen limited use in high-end residences for lighting control, security, and other automation applications and in simple hobbyist-level automation systems.

Control systems consist of an array of hardware devices and software used to collect data from the physical world and convert that data to electrical signals. These signals, in turn, provide information that can be used to effect responses based upon pre-programmed rules and logic. Traditionally, most control systems have incorporated closed, centrally controlled architectures. These systems share many of the same drawbacks of centralized computing architectures that rely upon mainframes and minicomputers to communicate to "dumb" terminals that lack independent processing capabilities.

Products for control systems are typically designed and manufactured by OEMs that focus on one or more vertical market, such as HVAC systems for buildings, or braking control systems for trains. Control systems are typically installed and maintained by systems integrators, and in some instances, by the in-house installation and maintenance divisions of OEMs. We believe that closed, centralized control systems have a number of inherent disadvantages for OEMs, systems integrators, and end-users.

OEMs, as the designers of control systems, and in some instances, as developers of their own protocols, can incur significant development and ongoing support expense to implement and maintain their closed systems. In addition, supporting such a closed infrastructure can take valuable resources away from developing competitive applications and can limit the OEM's ability to support the product development efforts of third party companies that use open platforms. Finally, centralized systems also risk complete shutdown if the central controller fails.

For systems integrators, it is typically very costly and time-consuming to install closed, centralized control systems because of the physical task of installing large amounts of wire and conduit to connect each component to one or more central controllers. Once the physical infrastructure is installed, specially trained and highly skilled personnel must program, install, and "debug" detailed control logic software in the controllers in order to manage the various components. If a facility incorporates control systems from more than one OEM, systems integrators may also have to spend considerable time connecting systems that were not designed to operate together, such as HVAC and fire/life/safety systems. This complex process can also make it expensive and time consuming to modify the systems. End-users ultimately must pay for these products and services. However, because it can be so costly to install and modify closed, centrally controlled systems, end-users often cannot always acquire new applications at an affordable cost. We believe that these factors have reduced the market opportunity for both OEMs and systems integrators to sell new products, functions, and applications to end-users.

We believe that OEMs, systems integrators, and end-users are trying to overcome the limitations of closed, centralized control systems. Just like the computer industry's move away from centralized computing architectures, we believe that, across a broad range of control applications, the controls industry is moving away from custom, wiring-intensive and closed interconnection schemes among various system components. We believe that the controls industry is moving towards open, interoperable, distributed architectures in which the intelligence resides in the devices sensing and controlling the physical infrastructure itself, and in the communication between these devices, rather than in central controllers.

Our Solution

We develop, market, and support a family of hardware and software products and services that allows OEMs and systems integrators to design and implement open, interoperable, distributed control networks. Our LonWorks networking technology allows intelligence and communications capabilities to be embedded into individual control devices. The intelligent, networked control devices are then able to communicate with each other to perform the desired control functions. For example, a temperature sensor might detect a change in temperature and send a message over the network that is received and acted upon by other devices that have been configured to accept the message. This eliminates the need for central controllers, significantly reduces wiring costs, increases system reliability, enables the creation of systems that can perform more functions, and makes it easier to adapt the systems to the user requirements — both at the time of initial installation and over the life of the system as the end-users' needs change. In addition, we believe that our products and services create new market opportunities because they allow devices that were previously not part of control systems, such as home appliances, to be cost-effectively made into smart, networked devices that communicate with one another and across the Internet. Further, the information communicated between the control devices can be integrated into corporate data applications, such as systems for enterprise resource planning, or ERP, or customer resource management, or CRM, to improve operational efficiency, lower cost, and increase quality.

We offer a broad set of products and services that provide the foundation and support required to build and implement open, interoperable networks of everyday devices using products from multiple vendors for the building, industrial, transportation, utility/home and other automation markets. With a control network that incorporates our LonWorks products, everyday devices become smart and can communicate with one another and across the Internet using our LonTalk® protocol. Each device in the network contains embedded intelligence that implements the protocol and performs local sensing and control functions. At the core of this embedded intelligence is typically a Neuron® Chip, an integrated circuit that we initially designed. Neuron Chips are currently manufactured and sold by Toshiba and Cypress Semiconductor. In addition, we offer:

- infrastructure components for use in Enel's Contatore Elettronico project, including components for use in networked electricity meters and a data concentrator product;
- components for making everyday devices smart and network connected, including transceivers that couple the Neuron Chip to the communications medium; "smart" transceivers that combine the functionality of a Neuron Chip and a transceiver into a single integrated circuit; control modules that are intended to help reduce OEM development cost; and associated development tools that allow OEMs to design LonWorks technology into their products;
- network infrastructure products including intelligent LonWorks routers that allow users to build large systems containing different networking media; network interfaces that connect computers to the network; and hardware and software products that enable the everyday devices in a LonWorks network to be connected to the Internet and other Internet protocol-based networks; and
- software tools and toolkits that allow users to install, monitor, maintain and control their systems.

Based on our past experience, we believe that our family of products and services provides the following customer benefits:

- *Installation Cost Savings.* LonWorks based open control networks are designed to be less expensive to install than closed, centrally controlled systems. By replacing individual hard-wired connections with shared network channels, we believe that wiring and conduit material and labor costs can be substantially reduced. By minimizing the need to program and debug complex control logic software, systems can be designed and commissioned more quickly by personnel with less specialized training. In addition, we have designed LonWorks networks so they do not require expensive, performance-limiting gateways, which are used to enable communication between various systems and to connect control systems from multiple vendors.
- *Life-Cycle Cost Savings.* LonWorks networks can eliminate many of the sources of high life-cycle costs found in traditional control systems. By providing an open, interoperable platform, LonWorks networks allow end-users to select the most cost-effective products and services for their applications from a broad range of OEMs. In addition, we believe that the inherent flexibility of the LonWorks network architecture permits modifications to the control system to be made at significantly lower cost. These modifications include adding new products, features, and functions. LonWorks technology also allows devices to be logically "rewired" across the network without the need to run new physical wire or to replace or reprogram devices.
- *Improved Quality and Functionality.* With LonWorks networks, end-users may customize their control networks by using products and applications from an array of vendors that best suits their specific needs. In open LonWorks networks, any piece of information from any device can easily be shared with any other device in the same control system, in a different control system, or in a computer system, without the need for custom programming or additional hardware. For example, a utility can remotely turn on or turn off electricity service to its customers, eliminating the need to send a service technician to the customer's home. The same system can also more quickly detect a service outage, enabling faster repair of the system.
- *Improved Reliability.* In a traditional system that has one central controller, the entire system can fail if that controller fails. However, in a LonWorks control network, where intelligence can be distributed throughout the entire network, there is no single point of failure. Typically, the failure of a device on the network only affects a small subset of devices with which it interacts. Unlike devices in a centrally controlled system, devices in a LonWorks network are "self-aware" and can take appropriate actions, such as returning to default set points, to adapt to the error condition. In addition, each device in a LonWorks network has built-in processing power, which allows it to keep track of its own status and report potential problems before they occur.

- *Increased Market Opportunities.* We believe that by eliminating high-cost centralized controllers and fostering devices that can work together, LonWorks technology allows both OEMs and systems integrators to create low-cost, customized solutions to satisfy market demands that have not been met by traditional control systems. We believe that new market opportunities are created by allowing devices that were previously not part of control systems, such as home appliances, to cost-effectively be made smart *networked* devices that communicate with one another and across the Internet. Further, we believe that the ability to integrate the information communicated between the control devices into corporate data applications, such as ERP or CRM systems, creates new opportunities to improve operational efficiency, lower cost, and increase quality.

Strategy

Our objective is to be the leading supplier of products and services used in the growing market for open, interoperable control networks. Key elements of our strategy include:

- *Increase Penetration of Existing Customer Base and Vertical Markets.* While our control network products are applicable across a broad range of industries, we intend to continue to focus our marketing efforts on those core vertical markets in which we have established a large customer base. These markets include the utility/home automation, building, and transportation industries. We work closely with OEMs and systems integrators in these markets to identify market needs, and target our product development efforts to meet those needs. We also look to penetrate deeper within the product lines of our existing OEM customers to increase the number of products and services they offer that are built on our products and services. We believe that close collaborative relationships with OEM customers will continue to accelerate the transition of our targeted industries toward open, multi-vendor architectures for control networks.

- *Capitalize on Opportunities in the Utility Market.* Given both its importance as one of the world's largest electric utilities and the scope of its project, which we believe to be the largest meter replacement project ever undertaken, we believe that our project with Enel has great visibility within the electric utility industry and has created an opportunity for us at other utilities. Historically, utilities have replaced electricity meters at a low rate. In contrast, Enel's Contatore Elettronico project will, if fully deployed, result in the replacement of almost all of the electricity meters in Enel's service territory with LonWorks enabled smart, networked meters in a span of a few years. We believe that by doing so, Enel will reap a number of benefits that can only be achieved when a utility has a homogenous population of smart, networked meters and that their project will create a willingness in other utilities to undertake similar wide-scale meter replacements. In May 2002, we formed a Service Provider Group that will focus on new opportunities in the utility market for our networked energy services, or NES system. Our NES system offering will be a new, and we believe, unique product offering for the utility market. Our NES system is being designed to allow utilities to offer advanced customer care services such as multi-tiered billing, pre-paid electricity, fault and outage detection, remote meter reading, and more accurate billing. It will also allow utilities to reduce operating costs through load monitoring and optimization and better inventory management. Lastly, it will set the stage for future in-premise applications such as predictive warranty services and remote appliance and machine diagnostics for any devices connected to the electricity grid or inside a home or business using our power line technology.

- *Leverage our OEM and Systems Integrator Distribution Channels to Amplify Our Market Presence.* Excluding Enel, we generally do not sell our products directly to end-users. We generally sell our products to OEM manufacturers, who embed our products inside of their products; or to system integrators, who incorporate our products along with those of our OEM customers into complete solutions for end-users. Therefore, our products generally come into the hands of end-users indirectly through sales made by our OEM customers or through the efforts of our system integrator customers. We believe that by working with our OEM customers and systems integrators to influence their sales efforts, we can create a "virtual sales force" for our products. We have established several marketing programs for this purpose that are centered around our Open Systems Alliance, a program created in 2000 to bring together manufacturers, integrators, resellers, and other companies that are working to promote open systems based on our LonWorks platform.

- *Take Advantage of New Market Opportunities Created by the Integration of LonWorks Control Networks with the Internet and Corporate Intranets.* We believe that the ability of LonWorks control networks to interact through Internet Protocol networks, including the Internet and corporate intranets, delivers important features to our customers that create new markets for our products. This ability enables end-users to remotely monitor and manage control networks, to collect and analyze data generated by their control networks, and to deliver new value-added services over the Internet that interact with the everyday devices in LONWORKS networks. To meet this market demand, we are developing systems and technology that combine standard data networking and communications protocols with our products and technology. For example, in 2002, we released two new members of the *i*.LON™ product family: the *i*.LON 10 Ethernet Adapter in June, and the *i*.LON 100 Internet Server in December. In March of 2003 we introduced the Panoramix™ platform, a scalable, enterprise software product designed to enable businesses to collect and manage data from device networks across multiple facilities and turn it into actionable business intelligence. We believe that the ability for companies to tap into the information running their core operations, extract it to a central site, aggregate it, and integrate it with their planning, operating, and other business systems will help them gain insight into the heart of their operations and make better informed, fact-based decisions that reduce costs and increase profitability.

- *Leverage International Market Opportunities.* With sales and marketing operations in ten countries and 88.2% of our total revenues in 2002 attributable to international sales, we have established a significant international presence. We plan to continue to devote significant resources to international sales, marketing, and product development efforts to capitalize on markets for control networks outside of the United States. For example, our most popular power line transceiver was designed to meet the requirements imposed by regulators in North America, Europe, and Japan, enabling OEMs to leverage their product development programs across these markets.

Success in the execution of our marketing strategy will require a continued emphasis on our key technical competencies, including, but not limited to, software, custom integrated circuits, and system level testing of integrated solutions.

Working Capital

As of December 31, 2002, we had working capital, defined as current assets less current liabilities, of $156.3 million, which was an increase of about $4.6 million compared to working capital of $151.7 million as of December 31, 2001.

As of December 31, 2002, we had cash, cash equivalents, and short-term investments of $134.5 million, which was an increase of about $22.8 million over the balances as of December 31, 2001. Additionally, as of December 31, 2002, we had $10.5 million of restricted cash that secures a $10.0 million line of credit under which no amounts have been drawn. Cash provided by operating activities in 2002 was primarily due to net income for the year, decreases in other current assets, and decreases in Enel program related accounts receivable and inventories, partially offset by a decrease in accounts payable.

Markets, Applications and Customers

We market our products and services primarily in Europe, Japan and selected Asia Pacific countries, and North and South America. Our target markets include:

- *Utility.* Since June 2000, we have been working with Enel to incorporate LONWORKS technology into Enel's Contatore Elettronico project. Under this project, Enel intends to provide digital electricity meters and a complete home networking infrastructure to over 27 million customers in Italy over a period ending in 2005. We began shipping products to Enel for use in the project in late 2000, and increased those volumes during 2001 and 2002. As of December 31, 2002, Enel had installed 5.7 million LONWORKS based electricity meters. Some of our OEM customers also incorporate our products into their systems for meter related applications, substation automation, and other utility applications.

- *Building Automation.* Companies worldwide are using LONWORKS control networks in most areas of the building automation industry, including access control, automatic doors, elevators, energy management, fire/life/safety, HVAC, lighting, metering, security, and window blinds. We believe that LONWORKS networks are widely accepted because they lower installed system cost, reduce ongoing life-cycle costs, and increase functionality. For example, the Coeur Défense project in the la Défense quarter of Paris included a major automation system using LonWorks networks for lighting, heating, air-conditioning, and sun blind control. Our OEM customers in the building automation market include Honeywell, TAC AB, Invensys Intelligent Systems, Johnson Controls, Siemens, Yamatake, Philips Lighting, and Schindler Elevator.

- *Industrial Automation.* LonWorks control networks are found in semiconductor fabrication plants, gas compressor stations, gasoline tank farms, oil pumping stations, water pumping stations, textile dyeing machinery, pulp and paper processing equipment, automated conveyor systems, and many other industrial environments. In such industrial installations, LonWorks networks can replace complex wiring harnesses, reduce installation costs, eliminate expensive programmable logic controllers and distribute control among sensors, actuators and other devices, thereby reducing system costs, improving control and eliminating the problem of a single point of failure, among other things. For example, BOC Edwards, a leading supplier of vacuum pumping systems to the semiconductor industry, uses LonWorks control networks within certain vacuum pump products to replace complex wiring used to connect various motors, sensors, actuators, and displays. The same control network is extended to connect multiple pumping stations together in a semiconductor fabrication plant to form a complete pumping system. Our OEM customers in the industrial automation market include BOC Edwards, Fuji Electric, Hitachi, Meissner & Wurst, and Yokagawa.
- *Transportation.* Our technology is used in important transportation applications, including railcars, light rail, busses, motor coaches, fire trucks, naval vessels, and aircraft. LonWorks networks can be used in these transportation systems to improve efficiency, reduce maintenance costs and increase safety and comfort. LonWorks technology is one of the standards used by the New York City Transit Authority for the replacement of its subway cars. Key OEMs in the transportation market include Bombardier, Kawasaki, Siemens, and New York Air Brake.
- *Home Automation and Other.* While the home networking market for automation and control is still in its infancy, some companies are now selling LonWorks based products for appliances, HVAC, lighting, security, utility meters and whole house automation. Other industries in which LonWorks control networks have been utilized or are being developed for use include telecommunications (including alarm systems for switching equipment) and agriculture (including feeding and watering systems).

Products and Services

We offer a wide-ranging set of over 90 products and services marketed under the LonWorks brand name. These products and services provide the infrastructure and support required to implement and deploy open, interoperable, control network solutions. All of our products either incorporate or operate with the Neuron Chip and/or the LonWorks protocol. While we recommend broad use of several of our products with other products that we offer, there is no inherent requirement for a customer to do so, given our open networking technology. For instance, a customer's product could use a transceiver purchased from a third party that is installed with software that uses our network operating system. Similarly, a customer's product could use a transceiver purchased from us that is installed with software from a third-party.

Infrastructure Components for use in Enel's Contatore Elettronico Project. We provide a number of products and components to Enel and its contract manufacturers. We sell Enel data concentrators that provide wide area connectivity to and supervision of digital electricity meters. We sell Enel's contract manufacturers meter kits, which include components that are incorporated into digital electricity meters for Enel and that allow these meters to communicate over the power line using the LonTalk protocol.

Components for Making Everyday Devices Smart and Network Connected. We provide a set of hardware products at various levels of integration designed to allow OEMs to embed networking and intelligence into their products. Our products in this range include power line and free topology twisted pair transceivers, power line and free topology smart transceivers, twisted pair and free topology control modules, and associated development tools including our NodeBuilder® development tool, which is designed to make it easy for OEMs to develop and test individual LonWorks nodes or small networks of LonWorks devices. The NodeBuilder tool uses a familiar Windows based development environment with easy-to-use on line help. Our FTT-10A free topology transceiver product, which permits communication over a twisted pair of wires, generated approximately 11.5% of our revenues during 2002 and 19.3% of our revenues during 2001.

Network Infrastructure Products. This suite of hardware products, some with embedded firmware, serves as the physical interface between the control software that resides on the managed devices and the cabling and wiring infrastructure. These products include a variety of routers, adapters, and IP connectivity products. LonWorks routers provide transparent support for multiple media, which makes it possible to signal between different types of media, such as twisted pair, power line, radio frequency, optical fiber, and infrared. Routers can also be used to control network traffic and partition sections of the network from traffic in another area, increasing the total throughput and speed of the network. Adapter products include network interfaces which can be used to connect computers to a LonWorks network and LonPoint® interface modules, which convert a variety of legacy digital and analog sensors and actuators into intelligent and interoperable LonWorks devices. Our family of *i*.LON products provide a variety of options for providing cost-effective, secure Internet connectivity to the everyday devices in LonWorks networks.

Software Products. Our LNS® network operating system serves as the platform for installing, maintaining, monitoring, and interfacing with control networks. The LNS family of products adds the power of client-server architecture and component-based software design into control systems and allows tools from multiple vendors to work together. The most recent release of LNS is version 3.0.

The LonMaker™ Integration Tool, which is built on the LNS network operating system and the Microsoft Visio technical drawing package, gives users a graphical, "drag and drop" environment in which to design their network's control system. The graphical nature of the LonMaker tool provides an intuitive interface for designing, installing, and maintaining multi-vendor, open, interoperable LonWorks control networks. LNS also allows multiple users, each running their own copy of the LonMaker tool or other LNS based tools, to utilize the system in parallel, thereby streamlining the design and commissioning process, and facilitating future adds, moves and changes. Our current version, release 3.1, began shipping in October 2001.

In March 2003, we introduced the Panoramix platform, a scalable, enterprise software product designed to enable businesses to collect and manage data from device networks across multiple facilities and turn it into actionable business intelligence.

Training and Support. We conduct a variety of technical training courses covering our LonWorks network technology and products. These courses are designed to provide hands-on, in-depth and practical experience that can be used immediately by OEMs and systems integrators using LonWorks systems. In addition to conducting these classes ourselves, we license them to third-parties in foreign markets who present them in the local language. We also offer technical support to our customers on a per-incident and annual contract basis. We provide these support services to resolve customers' technical problems on a timely basis, ensure that our products will be used properly, and to shorten the time required for our customers to develop products that use our technology. As of February 28, 2003, we had 15 employees in the United States, Japan, China and the United Kingdom engaged in training and support.

Sales and Marketing

We market and sell our products and services to OEMs and systems integrators to promote the widespread use of our LonWorks technology. In addition, we believe that awareness of the benefits of LonWorks networks among end-users will increase demand "pull" for our products.

In North America, we sell our products through a direct sales organization. Outside the United States, direct sales, applications engineering and customer support are conducted through our offices in China, France, Germany, Italy, Japan, the Netherlands, South Korea, and the United Kingdom. Each of these offices is staffed primarily with local employees. We support our worldwide sales personnel with application engineers and technical and industry experts working in our headquarters. We also leverage our selling efforts through the use of an in-house telephone sales staff. Internationally, we support our direct sales with the use of distributors who tend to specialize in certain geographical markets. In Europe, we sell our products that do not relate to our project with Enel principally through EBV, our sole independent European distributor, and through our direct sales force. Under the Contatore Elettronico project with Enel, we sell products directly to Enel and also sell components directly to Enel's contract manufacturers. We rely solely on distributors in certain markets in the Asia Pacific region, including Australia and Taiwan, and in Latin America, through our distributor in Argentina. International sales, which include both export sales and sales by international subsidiaries, accounted for 88.2% of our total revenues for 2002, 78.1% of our total revenues for 2001, and 66.4% of our total revenues for 2000.

We maintain an authorized network integrator program to increase the distribution of our products through systems integrators worldwide. These systems integrators design, install, and service control systems using our LonMaker tool, our LonPoint products, and other manufacturers' products that meet the certification guidelines of the LONMARK® Interoperability Association, thereby reducing dependence on single-vendor products, eliminating the risks of centralized, closed controllers and supporting less complex, peer-to-peer system architectures. We provide these systems integrators with the training, tools, and products required to cost-effectively install, commission, and maintain open, multi-vendor distributed control systems based on LONWORKS control networks.

The LONMARK Interoperability Association and the LonWorldä Conference and Exhibition assist our marketing efforts. We formed the LONMARK Interoperability Association in May 1994 and as of February 28, 2003 it had about 300 members. This Association makes technical recommendations for interoperable use of LONWORKS technology and promotes the use of open control networks based on the LONWORKS standard. The purpose of the LonWorld Conference and Exhibition is to provide a forum in which parties can share recent information concerning LONWORKS technology and applications, build alliances, and support the LONWORKS standard for control networking. The most recent LonWorld Conference and Exhibition was held in October 2002 in Toronto, Canada.

Strategic Alliances

Neuron Chips, which are important components used by our customers in control network devices, are currently manufactured and distributed by Toshiba and Cypress Semiconductor. Motorola also manufactured and distributed Neuron Chips until January 31, 2001. We presently have licensing agreements with both Cypress Semiconductor and Toshiba. Among other things, the agreements grant Cypress and Toshiba the worldwide right to manufacture and distribute Neuron Chips using technology licensed from us and require us to provide support and unspecified updates to the licensed technology over the terms of the agreements. The Cypress agreement expires in April 2009 and the Toshiba agreement expires in January 2010. We developed the first version of the Neuron Chip, although Motorola, Toshiba, and Cypress have subsequently developed improved, lower-cost versions of the Neuron Chip that are presently used in products developed and sold by us and our customers.

We entered into a Research and Development and Technological Cooperation Agreement with Enel Distribuzione S.p.A., a subsidiary of Enel, in June 2000. Under this agreement, we agreed to cooperate with Enel in the development of Enel's Contatore Elettronico meter management project. The R&D Agreement has a term of five years. The Contatore Elettronico project, which, among other things, will replace existing stand-alone electricity meters with networked electricity meters throughout Enel's service territory in Italy, is intended to provide a variety of services, including the ability to:

- remotely turn power on or off to a customer;
- read usage information from a meter;
- detect a service outage;
- detect the unauthorized use of electricity;
- change the maximum amount of electricity that a customer can demand at any time; and
- manage the distribution of electricity throughout Enel's service area.

The Contatore Elettronico project incorporates solid-state electricity meters designed by Enel and a third party. We have entered into supply agreements with various third party contract manufacturers who manufacture the meters for Enel. These contract manufacturers combine components purchased from us with other components to complete the manufacture of meters for sale to Enel. In addition, we sell a finished product, called a data concentrator, directly to Enel for use in the Contatore Elettronico project. We expect to complete the sale of our components and products for the Contatore Elettronico project in late 2004 or early 2005.

In July 2001, we entered into an agreement with STMicroelectronics S.r.L. under which STMicroelectronics developed and produces our power line smart transceiver. The agreement expires in July 2011.

Product Development

Our future success depends in large part on our ability to enhance existing products, reduce product cost, and develop new products that maintain technological competitiveness. We have made and intend to continue to make substantial investments in product development. Extensive product development input is obtained from customers and by monitoring end-user needs and changes in the marketplace. We continue to make significant engineering investments in bringing our software products, control and connectivity products, and development tools to market and extending our product offerings in the utility markets to customers beyond Enel. For example, we are developing our NES system to provide a single, open infrastructure over which utilities can run a wide set of functions to reduce costs and increase quality in a variety of functional areas, such as multi-tiered billing, pre-paid electricity, fault and outage detection, remote meter reading, and more accurate billing. We expect our NES system to consist of intelligent, communicating electricity meters, IP connected data concentrators, and a software solution based on our recently announced Panoramix enterprise software platform.

Our total expenses for product development were $21.5 million for 2002, $17.0 million for 2001 and $11.2 million for 2000. We anticipate that we will continue to commit substantial resources to product development in the future and that product development expenses may increase in the future. To date, we have not recorded any capitalized software development costs from our development efforts.

As of February 28, 2003, we had 112 employees in our product development organization.

Competition

Competition in our markets is intense and involves rapidly changing technologies, evolving industry standards, frequent new product introductions, and changes in customer requirements. To maintain and improve our competitive position, we must keep pace with the evolving needs of our customers and continue to develop and introduce new products, features and services in a timely and efficient manner. The principal competitive factors that affect the markets for our control network products include:

- the price and features of our products such as adaptability, scalability, the ability to integrate with other products, functionality, and ease of use;
- our product reputation, quality and performance; and
- our customer service and support.

In each of our markets, we compete with a wide array of manufacturers, vendors, strategic alliances, systems developers, and other businesses. Our competitors include some of the largest companies in the electronics industry, such as Siemens in the building and industrial automation industries, and Allen-Bradley (a subsidiary of Rockwell) and Group Schneider in the industrial automation industry. Many of our competitors, alone or together with their trade associations and partners, have significantly greater financial, technical, marketing, service and other resources, significantly greater name recognition and broader product offerings than our company has. As a result, these competitors may be able to devote greater resources to the development, marketing and sale of their products, and may be able to respond more quickly to changes in customer requirements or product technology. In addition, those competitors that manufacture and promote closed, proprietary control systems may enjoy a captive customer base dependent on such competitors for service, maintenance, upgrades and enhancements. Microsoft has announced a specification that it refers to as SCP (Simple Control Protocol) that is targeted at the networking of everyday devices. Microsoft has announced its intent to focus this capability on home networking applications. Products from other companies such as Digi International, emWare, Ipsil, JumpTec, Lantronix, and Wind River Systems, as well as certain micro-controller manufacturers including Motorola, Micro Chip, and Phillips, all of which promote directly connecting devices to the Internet, could also compete with our products. Products from companies such as DCSI, Hexagram, Hunt Technologies, Itron, Nexus, Ramar, and Schlumberger Sema, each of which offer automatic meter reading (AMR) products for the utility industry, could compete with our broader networked energy services offerings to the utility marketplace.

Many of our current and prospective competitors are dedicated to promoting closed or proprietary systems, technologies, software, and network protocols or product standards that differ from, or are incompatible with, our products. In some cases, companies have established associations or cooperative relationships to enhance the competitiveness and popularity of their products, or to promote these different or incompatible technologies, protocols and standards. For example, in the building automation market, we face widespread reluctance by vendors of traditional closed or proprietary control systems, who enjoy a captive market for servicing and replacing equipment, to use our interoperable technologies. We also face strong competition by large trade associations that promote alternative technologies and standards in their native countries, such as the Konnex Association in Belgium, and the European Installation Bus Association in Germany, each of which has over 100 members and licensees. Other examples include various industry groups that promote alternative open standards such as BACnet in the building market, DALI in the lighting controls market, and a group comprised of Asea Brown Boveri, ADtranz AB, Siemens, GEC Alstrom and other manufacturers that support an alternative rail transportation protocol to our LonWorks protocol. Our technologies, protocols, or standards may not be successful in any of our markets, and we may not be able to compete with new or enhanced products or standards introduced by existing or future competitors.

LonWorks technology is open, meaning that many of our technology patents are broadly licensed without royalties or license fees. For instance, all of the network management commands required to develop software that competes with our LNS software are published. As a result, our customers are capable of developing hardware and software solutions that compete with some of our products. Since some of our customers are OEMs that develop and market their own control systems, these customers in particular could develop competing products based on our open technology. This could decrease the market for our products and increase the competition that we face.

Manufacturing

Our manufacturing strategy is to outsource production to third parties where it is more cost-effective and to limit our internal manufacturing to such tasks as quality inspection, system integration, testing, and order fulfillment. We maintain manufacturing agreements with Cypress and Toshiba, and until January 31, 2001 with Motorola, related to the Neuron Chip. We also maintain manufacturing agreements with STMicroelectronics for production of our Power Line Smart Transceiver, and with On Semiconductor and AMI Semiconductor for the production of certain components used in the Enel program.

For most of our products requiring assembly, we use contract electronic manufacturers including WKK Technology, Able Electronics, and TYCO TEPC/Transpower. These contract electronic manufacturers procure material and assemble, test, and inspect the final products to our specifications.

Government Regulation

Many of our products and the industries in which they are used are subject to U.S. and foreign regulation as well as local, industry-specific codes and requirements. Government regulatory action could greatly reduce the market for our products. Some of our competitors have attempted to use regulatory actions to reduce the market opportunity for our products or to increase the market opportunity for our competitors' products. We have resisted these efforts and will continue to oppose competitors' efforts to use regulation to impede competition in the markets for our products.

Proprietary Rights

We own numerous patents, trademarks, and logos. As of February 28, 2003, we had received 87 United States patents, and had 9 patent applications pending. Some of these patents have also been granted in selected foreign countries. Many of the specific patents that are fundamental to LonWorks technology have been licensed to our customers with no license fee or royalties. The principal value of the remaining patents relates to our specific implementation of our products and designs.

We hold several registered trademarks in the United States, including Echelon, LonBuilder, LonMark, LonTalk, LonWorks, Neuron, LON, LonPoint, LonUsers, 3120, 3150, LNS, LonManager, Digital Home, *i*.LON and NodeBuilder. We have also registered some of our trademarks and logos in foreign countries.

Employees

As of February 28, 2003, we had 266 employees worldwide, of which 112 were in product development, 70 were in sales and marketing, 41 were in general and administrative, 28 were in operations, and 15 were in customer support and training. About 175 employees are located at our headquarters in California and 39 employees are located in other offices throughout the United States. Our remaining employees are located in nine countries worldwide, with the largest concentrations in Germany, Japan, the Netherlands, the United Kingdom, and Hong Kong. None of our employees is represented by a labor union. We have not experienced any work stoppages and we consider our relations with employees to be good.

Where to Find More Information

We make our public filings with the Securities and Exchange Commission, including our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all exhibits and amendments to these reports, available free of charge at our website, www.echelon.com, as soon as reasonably practicable after we file such material with the Securities and Exchange Commission. These materials are available in the "Investor Relations" portion of our website, under the link "SEC Filings." Information contained on our website is not incorporated by reference into our annual report on Form 10-K.

Executive Officers of the Registrant

M. Kenneth Oshman, age 62, has been our Chairman and Chief Executive Officer since December 1988. He also served as our President from 1988 to 2001. Mr. Oshman, with three associates, founded ROLM Corporation, a telecommunications equipment company, in 1969. He was Chief Executive Officer, President, and a director at ROLM from its founding until its merger with IBM in 1984. Following the merger, he became a Vice President of IBM and a member of the Corporate Management Board. He remained in that position until he left IBM in 1986. Prior to founding ROLM, Mr. Oshman was a member of the technical staff at Sylvania Electric Products from 1963 to 1969. In addition to his responsibilities at our company, Mr. Oshman serves as a director of Sun Microsystems and Knight-Ridder. Mr. Oshman earned B.A. and B.S.E.E. degrees from Rice University and M.S. and Ph.D. degrees in Electrical Engineering at Stanford University.

Beatrice Yormark, age 58, has been our President and Chief Operating Officer since September 2001. She served as our Vice President of Marketing and Sales from January 1990 to August 2001. Ms. Yormark joined our company from Connect, Inc., an on-line information services company, where she was the Chief Operating Officer. Before joining Connect, Ms. Yormark held a variety of positions, including Executive Director of Systems Engineering for Telaction Corporation, Director in the role of Partner at Coopers & Lybrand, Vice President of Sales at INTERACTIVE Systems Corporation, and various staff positions at the Rand Corporation. In addition to her responsibilities at our company, Ms. Yormark serves as a director of ID Systems, (NASDAQ: IDSY). Ms. Yormark holds a B.S. degree in Mathematics from City College of New York and a M.S. degree in Computer Science from Purdue University.

Oliver R. Stanfield, age 54, has been our Executive Vice President & Chief Financial Officer since September 2001. He served as our Vice President and Chief Financial Officer from March 1989 to August 2001. Mr. Stanfield joined our company from ROLM, where he served in several positions since 1980, including Director of Pricing; Vice President, Plans and Controls; Vice President, Business Planning; Vice President, Financial Planning and Analysis; Treasurer; and Controller, Mil Spec Division. Prior to joining ROLM, Mr. Stanfield worked for ITEL Corporation, Computer Automation and Rockwell International. Mr. Stanfield began his business career with Ford Motor Company in 1969 in various accounting positions while completing a B.S. degree in Business Administration and an M.B.A. degree from the University of Southern California.

Kathleen Bloch, age 46, has been our Senior Vice President and General Counsel since February 2003. Prior to joining our company, Ms. Bloch was a partner in the law firm of Wilson Sonsini Goodrich & Rosati, P.C., where she practiced from 1996 to 2003. Prior to joining Wilson Sonsini Goodrich & Rosati, she was a partner with the San Francisco and Los Angeles offices of Sheppard Mullin Richter & Hampton. Ms. Bloch received a B.S. degree in Business Administration from the University of Southern California and her law degree from Stanford Law School.

Frederik Bruggink, age 47, has been our Senior Vice President and General Manager of our Service Provider Group since July 2002. He served as our Senior Vice President of Sales and Marketing from September 2001 to June 2002, and as our Vice President, Europe, Middle East and Africa, from April 1996 to August 2001. Mr. Bruggink joined our company in 1996 from Banyan Systems, where he was Vice President, Europe. From 1985 to 1993, Mr. Bruggink held several positions at Stratus Computer, including General Manager for Holland, Benelux, and Northern Europe. His last position at Stratus was Vice President, Northern Europe (including Germany). Prior to joining Stratus, he held sales positions at Burroughs Computers. Mr. Bruggink attended the University of Leiden.

Russell Harris, age 41, joined us in September 2001 as our Senior Vice President of Operations. Prior to joining our company, he served as the Vice President of Operations for NetDynamics from 1996 until its acquisition by Sun Microsystems in 1998. From 1991 to 1996, Mr. Harris was the Director of Operations at Silicon Graphics, Inc. From 1985 through 1991, he held various positions at Convergent Technologies and Unisys Corporation. His last position at Unisys was as Director of IT for Worldwide Operations. Mr. Harris earned B.S. and M.S. degrees in Industrial Engineering from Stanford University.

Peter A. Mehring, age 41, has been our Senior Vice President, Engineering since September 2001. He served as our Vice President, Engineering from March 1998 to August 2001. From January 1996 to March 1998, Mr. Mehring held a variety of positions at Umax Computer Corporation where he was a Founder, General Manager, and Vice President of Research and Development. Prior to joining Umax, Mr. Mehring held engineering management positions at Radius, Power Computing Corporation, Sun Microsystems, and Wang Laboratories. Mr. Mehring received a B.S. degree in Electrical Engineering from Tufts University, Massachusetts.

Item 2. PROPERTIES

Our corporate headquarters are located in a 75,000 square foot facility in San Jose, California. We moved to this facility in October 2001. The lease for this building requires minimum rental payments for ten years that total approximately $20.6 million, as well as a $3.0 million security deposit that we satisfied in the form of a standby letter of credit, or LOC, issued in July 2000. We currently secure this annually renewable LOC with a cash deposit at the bank that issued the LOC.

In October 2000, we entered into a lease for a second building that is being constructed adjacent to our main headquarters building. We expect this second building to be complete in May 2003. The lease for the second building also requires minimum rental payments for ten years that total approximately $23.4 million. We expect payments under this lease to begin in May 2003, resulting in additional 2003 rent, leasehold improvement amortization, and other facilities maintenance expenses of approximately $1.9 million. Additionally, we are required under the lease for the second building to provide a $5.0 million security deposit, which we satisfied in the form of a standby letter of credit issued in October 2001. We currently secure this annually renewable LOC with a cash deposit at the bank that issued the LOC.

We also lease office space for some of our sales and marketing employees in China, France, Germany, Hong Kong, Italy, Japan, the Netherlands, South Korea, Taiwan, and the United Kingdom and for some of our research and development employees in Livermore, California, Fargo, North Dakota, and Germany. The aggregate rental expense for such office space was approximately $870,000 during 2002.

Item 3. LEGAL PROCEEDINGS

None.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the fourth quarter of our fiscal year ended December 31, 2002.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock is traded on the Nasdaq National Market under the symbol "ELON." We began trading on Nasdaq on July 28, 1998, the date of our initial public offering. The following table sets forth, for the quarter indicated, the high and low sales price per share of our common stock as reported on the Nasdaq National Market.

	Price Range	
	High	**Low**
Year Ended December 31, 2002		
Fourth quarter	$15.75	8.41
Third quarter	16.00	8.36
Second quarter	20.84	11.10
First quarter	22.44	12.79
	High	**Low**
Year Ended December 31, 2001		
Fourth quarter	$18.50	$11.26
Third quarter	30.13	11.26
Second quarter	32.00	8.00
First quarter	25.88	13.00

As of February 28, 2003, there were approximately 557 stockholders of record. Because brokers and other institutions hold many shares on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never paid dividends on our capital stock and do not expect to pay any dividends in the foreseeable future. We intend to retain future earnings, if any, for use in our business.

Equity Compensation Plan Summary Information

Please see the paragraph entitled "Equity Compensation Plan Summary Information" included in footnote 6 to our accompanying financial statements for a summary of information concerning options issued and available for issuance under equity compensation plans that have been approved by our stockholders.

Item 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data has been derived from the audited consolidated financial statements. The information set forth below is not necessarily indicative of results of future operations, and should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes in Item 8 of this Form 10-K in order to fully understand factors that may affect the comparability of the information presented below.

	Year Ended December 31,				
	2002	2001	2000	1999	1998
	(in thousands, except per share data)				
Consolidated Statement of Operations Data:					
Net revenues:					
Product	$121,454	$ 74,777	$ 47,261	$37,546	$29,163
Service	1,380	1,812	2,038	2,220	3,038
Total revenues	122,834	76,589	49,299	39,766	32,201
Cost of revenues:					
Cost of product	57,059	34,842	18,225	14,297	12,784
Cost of service	2,880	2,347	2,017	1,529	1,836
Total cost of revenues	59,939	37,189	20,242	15,826	14,620
Gross profit	62,895	39,400	29,057	23,940	17,581
Operating expenses:					
Product development	21,456	17,028	11,159	9,214	7,564
Sales and marketing	17,291	15,787	15,949	15,152	12,535
General and administrative	9,711	6,942	5,787	4,101	4,119
Non-recurring charge/(benefit)	—	—	(48)	549	—
Total operating expenses	48,458	39,757	32,847	29,016	24,218
Operating income/(loss)	14,437	(357)	(3,790)	(5,076)	(6,637)
Interest and other income, net	3,777	6,655	4,019	1,355	945
Income/(loss) before provision for income taxes	18,214	6,298	229	(3,721)	(5,692)
Provision for income taxes	1,457	252	145	186	159
Net income/(loss)	$ 16,757	$ 6,046	$ 84	$ (3,907)	$ (5,851)
Income/(loss) per share (1):					
Basic	$ 0.42	$ 0.16	$ 0.00	$ (0.12)	$ (0.24)
Diluted	$ 0.41	$ 0.15	$ 0.00	$ (0.12)	$ (0.24)
Pro forma basic (2)					$ (0.20)
Shares used in per share calculation (1):					
Basic	39,468	38,443	35,222	32,910	24,845
Diluted	40,726	41,141	39,734	32,910	24,845
Pro forma basic (2)					29,405
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$134,489	$111,653	$150,793	$24,304	$29,053
Working capital	156,319	151,748	164,377	30,290	33,733
Total assets	207,492	185,654	175,676	39,711	41,950
Total stockholders' equity	195,018	174,717	168,761	32,938	35,786

(1) See Note 2 of Notes to Consolidated Financial Statements for an explanation of shares used in computing basic net income/(loss) per share, diluted net income/(loss) per share, and pro forma basic net loss per share.

(2) Pro forma basic net loss per share has been calculated assuming the conversion of the outstanding preferred stock into an equivalent number of shares of common stock, as if the shares had been converted on the dates of their issuance.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the consolidated financial statements and notes thereto, included elsewhere in this Annual Report. The following discussion contains forward-looking statements including, without limitation, statements regarding the anticipated completion of transactions, our liquidity position, and our expected overall growth that involve risks and uncertainties. Our actual results could differ materially from the results contemplated by these forward-looking statements due to certain factors, including those discussed below in "Factors That May Affect Future Results Of Operations" and elsewhere in this Annual Report.

Overview

We develop, market and support a wide array of products and services based on our LonWorks technology that enables OEMs and systems integrators to design and implement open, interoperable, distributed control networks. We offer these hardware and software products to OEMs and systems integrators in the building, industrial, transportation, utility/home and other automation markets. We also provide a variety of technical training courses related to our products and the underlying technology. A small number of our customers also rely on us to provide customer support on a per-incident or annual contract basis.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are 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 our investments, allowance for doubtful accounts, revenues, inventories, asset impairments, income taxes, commitments and contingencies. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions.

For an overview of our significant accounting policies, we refer you to Note 2 to the consolidated financial statements included in this 10-K filing. We believe the following critical accounting policies are those that are the most important to the presentation of our financial statements and require the most difficult, subjective, and complex judgments.

Estimating Sales Returns and Allowances. We sell our products and services to OEMs, systems integrators, and our other customers directly through our sales force and indirectly through distributors around the world. Sales to certain distributors are made under terms allowing certain rights of return. Sales to EBV, our largest distributor, accounted for 9.2% of total net revenues for 2002, 16.9% of total net revenues for 2001, and 26.5% of total net revenues in 2000. Worldwide sales to distributors, including those to EBV, accounted for approximately 14.2% of total net revenues for 2002, 26.9% of total net revenues for 2001, and 41.1% of total net revenues for 2000.

Net revenue consists of product and service revenue reduced by estimated sales returns and allowances. Provisions for estimated sales returns and allowances, which are based on historical trends, contractual terms and other available information, are recorded at the time of sale. As part of our revenue recognition policy, management must make estimates of potential future product returns related to product revenue in the current period. Management analyzes historical returns, current economic trends, and changes in customer demand and acceptance of our products when evaluating the adequacy of the sales returns and other allowances.

To estimate potential product returns from distributors other than EBV, management analyzes historical returns and the specific contractual return rights of each distributor. In the case of EBV, we further refine this analysis by reviewing month-end inventory levels at EBV, shipments in transit to EBV, EBV's historical sales volume by product, and forecasted sales volumes for some of EBV's larger customers. Significant management judgments and estimates must be made and used in connection with establishing these distributor related sales returns and other allowances in any accounting period. Material differences may result in the amount and timing of our revenue for any period if management made different judgments or utilized different estimates.

Other than standard warranty repair work, Enel and its meter manufacturers do not have rights to return products we ship to them.

Other material sales-related estimates include our allowance for sales discounts and rebates that we identify and reserve for at the time of sale. Our allowances for sales returns and other sales related reserves were approximately $2.1 million as of December 31, 2002 and $1.6 million as of December 31, 2001.

Allowance for Doubtful Accounts. We evaluate the collectibility of our accounts receivable based on a combination of factors. In circumstances where we are aware of a specific customer's inability to meet its financial obligations to us, we record a specific allowance against amounts due to reduce the net recognized receivable to the amount we reasonably believe will be collected. For all other customers, we recognize allowances for doubtful accounts based on the length of time the receivables are past due, the current business environment, customer credit-worthiness, changes in our customers' payment patterns and our historical experience. If the financial condition of our customers were to deteriorate or if economic conditions worsened, additional allowances may be required in the future. Our allowance for doubtful accounts was approximately $570,000 as of December 31, 2002 and $510,000 as of December 31, 2001.

Inventory Valuation. At each balance sheet date, we evaluate our ending inventories for excess quantities and obsolescence. This evaluation includes analyses of sales levels by product and projections of future demand. Inventories on hand, in excess of forecasted demand, generally one year or less, are not valued. In addition, we write off inventories that are considered obsolete. Remaining inventory balances are adjusted to approximate the lower of our standard manufacturing cost or market value. If future demand or market conditions are less favorable than our projections, additional inventory write-downs may be required and would be reflected in cost of sales in the period the revision is made. Our reserve for excess and obsolete inventory was approximately $1.6 million as of December 31, 2002 and $1.2 million as of December 31, 2001.

Warranty Reserves. When evaluating the reserve for warranty costs, management takes into consideration the term of the warranty coverage, the quantity of product in the field that is currently under warranty, historical return rates, historical costs of repair, and knowledge of new products introduced. If any of these factors were to change materially in the future, additional warranty reserves may be required. Our reserve for warranty costs was approximately $229,000 as of December 31, 2002 and $119,000 as of December 31, 2001.

Deferred Income Taxes. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. Based on the uncertainty of our future operating results, we have recorded a valuation allowance that fully reserves against our deferred tax assets. If we later determine that, more likely than not, some or all of the net deferred tax assets will be realized, then some or all of the previously provided valuation allowance would be reversed. Our deferred tax asset valuation allowance was $48.0 million as of December 31, 2002 and $46.5 million as of December 31, 2001.

Valuation of Goodwill and Other Intangible Assets. We assess the impairment of goodwill and identifiable intangible assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include the following:

- significant underperformance relative to expected historical or projected future operating results;
- significant changes in the manner or use of the acquired assets or the strategy for our overall business;
- significant negative industry or economic trends; and
- significant changes in the composition of the intangible assets acquired.

When we determine that the carrying value of goodwill and other intangible assets may not be recoverable based upon the existence of one or more of the above indicators, we measure any impairment based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model. Net goodwill and other intangible assets amounted to $8.5 million as of December 31, 2002.

We adopted SFAS 142 on January 1, 2002, and, as a result, ceased amortizing approximately $2.1 million of goodwill, which, as of December 31, 2001, had a net unamortized balance of $1.7 million. During 2001, we recorded amortization expenses totaling approximately $320,000 against this balance and would have charged approximately $360,000 of amortization in 2002. In lieu of amortization, SFAS 142 now requires that we perform an initial impairment review of our goodwill in 2002 and at least an annual impairment review thereafter. In accordance with these impairment review requirements, we have completed a transitional impairment test and determined that there was no impairment. However, if as a result of impairment reviews that we perform from time to time in the future, we determine that there has been an impairment of our goodwill or other intangible assets, we would be required to take an impairment charge, which could have a material adverse impact on our financial position and/or operating results.

Results of Operations

Net Revenue (in thousands)

	Years Ended December 31,			2002 over 2001	2001 over 2000
	2002	2001	2000	% Change	% Change
U.S. and unallocated U.S.	$ 14,471	$16,775	$16,557	(13.7%)	1.3%
International	108,363	59,814	32,742	81.2%	82.7%
Total	$122,834	$76,589	$49,299	60.4%	55.4%

	Years Ended December 31,			2002 over 2001	2001 over 2000
	2002	2001	2000	% Change	% Change
Enel related U.S.	$ 81,550	$31,048	$ 1,545	162.7%	1,909.6%
Non-Enel related	41,284	45,541	47,754	(9.3%)	(4.6%)
Total	$122,834	$76,589	$49,299	60.4%	55.4%

	Years Ended December 31,			2002 over 2001	2001 over 2000
	2002	2001	2000	% Change	% Change
Product U.S.	$121,454	$74,777	$47,261	62.4%	58.2%
Service	1,380	1,812	2,038	(23.8%)	(11.1%)
Total	$122,834	$76,589	$49,299	60.4%	55.4%

	Years Ended December 31,			2002 over 2001	2001 over 2000
% of Total Net Revenue	2002	2001	2000	% Change	% Change
Product U.S.	98.9%	97.6%	95.9%	1.3%	1.7%
Service	1.1%	2.4%	4.1%	(1.3%)	(1.7%)
Total	100.0%	100.0%	100.0%	0.0%	0.0%

During 2002, net revenues grew $46.2 million, or 60.4%, as compared to 2001. During 2001, net revenues grew $27.3 million, or 55.4%, as compared to 2000. The increase in net revenues for 2002 compared to 2001, and for 2001 compared to 2000, related primarily to increased product revenues generated from shipments under the Enel program. Products sold to Enel and its contract manufacturers accounted for 66.4% of our total net revenues in 2002, 40.5% of our total net revenues in 2001, and 3.1% of our total net revenues in 2000. If the Enel program continues to move forward in accordance with Enel's most recently announced roll-out plan, we believe that revenue attributable to the project will continue to account for a material portion of our overall net revenues during 2003 and 2004. Once the project is completed, or if it is cancelled prior to its completion, we would experience a significant drop in our overall revenue which would have a material negative impact on our financial position. Given our significant dependence on one customer at this time, we continue to seek opportunities to expand our customer base. During 2002, we formed a new sales and marketing organization that has been tasked with identifying other utility customers for our products. However, we can give no assurance that their efforts will be successful.

Partially offsetting the increase in net revenues attributable to the Enel program were reductions in non-Enel related revenues of $4.3 million, or 9.3% in 2002 as compared to 2001, and $2.2 million, or 4.6% in 2001 as compared to 2000. These reductions in non-Enel related revenues are primarily attributable to the worldwide economic slowdown, which began in late 2000 and continued through 2001 and 2002. We believe that net revenues will level off in 2003, primarily because we currently expect revenues from the Enel program in 2003 to be similar to revenues from the Enel program in 2002.

EBV, the sole independent distributor of our products in Europe, accounted for 9.2% of total net revenues in 2002, 16.9% of total net revenues in 2001, and 26.5% of total net revenues in 2000. Our contract with EBV expires in December 2003. If we are unable to renew our agreement with EBV at that time, or do not otherwise establish an alternative for the distribution of our products in Europe, our revenues could decrease and our financial position and results of operations could be harmed.

Domestic and unallocated revenues for 2002 decreased by $2.3 million, or 13.7% as compared to 2001 due to the continued poor economic environment in the United States. International revenues increased by $48.5 million, or 81.2% during the same time period due primarily to volume shipments under the Enel program. Without Enel program revenues of $81.6 million in 2002 and $31.0 million in 2001, international revenues would have reflected a $2.0 million, or 6.8% decline in 2002 as compared to 2001, and a $2.4 million, or 7.8% decline in 2001 as compared to 2000. These reductions were due primarily to the worldwide economic slowdown, which began in late 2000 and continued through 2002. In 2001, the impact of exchange rates, principally the Japanese Yen, on sales made in foreign currencies, also contributed to the decline over 2000 results. We believe that international revenues will remain relatively flat as a percentage of total revenues in 2003, due to the leveling off of revenues attributable to product shipped under the Enel program.

The increase in product revenues of 62.4% for 2002 as compared to 2001, and of 58.2% for 2001 as compared to 2000, was primarily driven by volume shipments under the Enel program. Without Enel program revenues, product revenues would have decreased by approximately $4.1 million, or 9.3% in 2002 as compared to 2001, and by approximately $1.8 million, or 3.9% in 2001 as compared to 2000. These reductions were primarily the result of the worldwide economic slowdown, which began in late 2000 and continued through 2002. During 2001, the impact of exchange rates, principally the Japanese Yen, on sales made in foreign currencies, also contributed to the decline over 2000 results. We believe that product revenues will level off in 2003, primarily because we currently expect revenues from the Enel program in 2003 to be similar to revenues from the Enel program in 2002. We also believe that new products we introduced in 2002 and early 2003 will provide new revenue opportunities for us. However, these new revenue opportunities may not be sufficient to overcome the effects that the continuing worldwide economic slowdown and the current geopolitical concerns in the Middle East and Asia are having on our product sales. In fact, if these conditions continue for a prolonged period of time, some of our customers could be forced out of business permanently, which could have a material negative impact on our revenues and results of operations.

During 2002, service revenues decreased by $432,000, or 23.8% as compared to 2001. This reduction in service revenues was due to reduced custom software development, customer support, and training revenues. In 2001, service revenues decreased by $226,000, or 11.1% as compared to 2000, primarily due to reduced training revenues. This reduction in 2001 was partially offset by custom software development service revenues of $200,000. We believe that the ongoing worldwide economic downturn has forced many of our customers to curtail spending for training and support. We do not expect our service revenues to improve so long as these economic conditions continue.

Cost of Revenues (in thousands)

	Years Ended December 31,			2002 over 2001	2001 over 2000
	2002	2001	2000	% Change	% Change
Product U.S.	$57,059	$34,842	$18,225	63.8%	91.2%
Service	2,880	2,347	2,017	22.7%	16.4%
Total	$59,939	$37,189	$20,242	61.2%	83.7%
Gross Profit	$62,895	$39,400	$29,057	59.6%	35.6%

As a % of Net Revenue	Years Ended December 31, 2002	2001	2000	2002 over 2001 % Change	2001 over 2000 % Change
Product U.S.	46.45%	45.5%	37.0%	1.0%	8.5%
Service	2.34%	3.1%	4.1%	(0.8%)	(1.0%)
Total	48.8%	48.6%	41.1%	0.2%	7.5%
Gross Profit	51.2%	51.4%	58.9%	(0.2%)	(7.5%)

Cost of product. Cost of product revenue consists of costs associated with the purchase of components, subassemblies, and finished goods, as well as allocated labor, overhead and manufacturing variances associated with the packaging, preparation and shipment of products. During 2002, cost of product revenues increased 63.8% to $57.1 million from the $34.8 million recorded in 2001. These costs resulted in product gross margins of 53.0% in 2002 and 53.4% in 2001. We believe that, as long as the Enel program continues to generate a material portion of our total net revenues, our product gross margins will remain relatively low as compared to years in which we had no Enel program revenues.

During 2001, cost of product revenues increased 91.2% to $34.8 million from the $18.2 million recorded in 2000. These costs resulted in product gross margins of 53.4% in 2001 and 61.4% in 2000. The decrease in product gross margin percentages in 2001 as compared to 2000 was due primarily to volume shipments of product under the Enel program. Due to the large quantities of product shipped under the Enel program, we sell these products to Enel and its subcontract manufacturers at prices that yield much lower gross profit percentages than our historical averages. To a lesser extent, changes in the mix of non-Enel products sold in each year, as well as fluctuations in overhead spending rates, also impacted gross margins in 2001.

Cost of service. Cost of service revenue consists of employee-related costs as well as direct costs incurred in providing training, customer support, and custom software development services. Cost of service revenue for 2002 was $2.9 million compared to $2.3 million in 2001. These costs represented service gross margins of (108.7)% in 2002 and (29.5)% in 2001. The decrease in service gross margin percentage in 2002 as compared to 2001 was primarily due to a decrease in custom software development, customer support, and training revenues and an increase in facilities costs, fees paid to outside parties for assistance in providing training services, and travel costs. In addition, customer service related expenses incurred by our Fargo, North Dakota operation (formerly BeAtHome) also contributed to the increased costs in 2002.

Cost of service revenue for 2001 was $2.3 million compared to $2.0 million in 2000. These costs represented service gross margins of (29.5)% in 2001 and 1% in 2000. The decrease in service gross margin percentage in 2001 as compared to 2000 was primarily due to a decrease in training revenue, $200,000 of costs related to the Enel custom software development project, and increased personnel costs.

Operating Expenses (in thousands)

	Years Ended December 31, 2002	2001	2000	2002 over 2001 % Change	2001 over 2000 % Change
Product development U.S.	$21,456	$17,028	$11,159	26.0%	52.6%
Sales and marketing	17,291	15,787	15,949	9.5%	(1.0%)
General and administrative	9,711	6,942	5,787	39.9%	20.0%
Non-recurring benefit	—	—	(48)	—	—
Total operating expenses	$48,458	$39,757	$32,847	21.9%	21.0%

As a % of Net Revenue	Years Ended December 31, 2002	2001	2000	2002 over 2001 % Change	2001 over 2000 % Change
Product development U.S.	17.5%	22.2%	22.6%	(4.7%)	(0.4%)
Sales and marketing	14.1%	20.6%	32.4%	(6.5%)	(11.8%)
General and administrative	7.9%	9.1%	11.7%	(1.2%)	(2.6%)
Non-recurring benefit	—	—	(0.1%)	—	—
Total operating expenses	39.5%	51.9%	66.6%	(12.4%)	(14.7%)

Product development. Product development expenses consist of costs associated with the development of new technologies and products, and are primarily made up of payroll and related expenses, facility costs, fees paid to consultants and third parties who assist in our research and development activities, expensed material, depreciation and amortization on property, plant and equipment used in development activities, and travel costs incurred by our development personnel. In addition, amortization of purchased technology is also included in product development costs. Our development projects include, but are not necessarily limited to, the development of hardware and software products to support the Enel program, the development of other hardware products including transceivers, control modules, routers, network interface devices, and *i*.LON Internet Servers, and the development of software, including network management software and development tools.

Product development expenses for 2002 increased 26.0% to $21.5 million from $17.0 million in 2001. These expenses represented 17.5% of total revenues in 2002 and 22.2% of total revenues in 2001. The primary components of the $4.5 million spending increase between the two years were costs associated with our new corporate facilities in San Jose and payroll and related costs associated with our engineering staff, including the addition of seven development personnel during the year. In addition, in January 2002 we acquired BeAtHome.com, Inc. of Fargo, North Dakota. Total product development costs incurred in our Fargo, North Dakota facility, including payroll, administrative, and operational costs associated with the 21 development personnel located there, a one-time charge of $400,000 related to in-process research and development expensed in the first quarter of 2002, and amortization of purchased technology, contributed approximately $2.0 million of the $4.5 million increase in development spending during 2002. Slightly offsetting these increases were reductions in fees paid to consultants and other third parties who assist in our research and development activities.

Product development expenses for 2001 increased 52.6% to $17.0 million from $11.2 million in 2000. These expenses represented 22.2% of total revenues in 2001 and 22.6% of total revenues in 2000. The increase in product development spending between the two years was driven primarily by the development of products for the Enel program, and to a lesser extent, by the development of other hardware and software products. The primary components of the $5.9 million spending increase between the two years were payroll and related costs associated with the addition of 23 engineers to our development staff, an increase in our use of external consultants who performed activities supplementing our internal development efforts, increased facilities expenses associated with increased development personnel, increased expensed material, and increased depreciation. In addition, in February 2001 we acquired ARIGO Software of Beckum, Germany. The additional eleven development personnel and facilities costs associated with the acquisition, as well as the amortization of the purchased technology and related intangibles, contributed approximately $1.1 million to development spending in 2001.

Sales and marketing. Sales and marketing expenses consist primarily of payroll and related expenses, commissions to sales personnel, travel and entertainment, advertising and product promotion, and facilities costs associated with our sales and support offices around the world. Sales and marketing expenses for 2002 increased to $17.3 million from $15.8 million in 2001. These expenses represented 14.1% of total revenues in 2002 and 20.6% of total revenues in 2001. The primary components of the $1.5 million spending increase between the two years were costs associated with our new corporate facilities in San Jose, increased payroll and commission costs, including costs associated with the addition of seven sales and marketing personnel hired during the year, and increased advertising and product promotion costs.

Sales and marketing expenses for 2001 decreased to $15.8 million from $15.9 million in 2000. These expenses represented 20.6% of total revenues in 2001 and 32.4% of total revenues in 2000. The slight decrease in sales and marketing expenses in 2001 from 2000 was primarily related to reduced advertising and trade show expenses and reduced travel and entertainment costs, partially offset by increased payroll and related expenses resulting from the addition of seven employees to our sales and marketing staff during the year. To a lesser extent, the strength of the U.S. dollar against local currencies where we conduct our sales and marketing operations, particularly in Japan, also contributed to the reduced level of sales and marketing expenses in 2001.

General and administrative. General and administrative expenses consist primarily of payroll and related expenses for executive, accounting and administrative personnel, facility costs, legal and accounting fees, corporate insurance, travel and entertainment, and other general corporate expenses. General and administrative expense for 2002 increased to $9.7 million from $6.9 million in 2001. These expenses represented 7.9% of total revenues in 2002 and 9.1% of total revenues in 2001. The primary components of the $2.8 million spending increase between the two years were payroll expenses associated with the full year effect of modifications made to our management structure during the fourth quarter of 2001, costs associated with our new corporate facilities in San Jose, insurance premiums, and travel and entertainment costs. In addition, in January 2002 we acquired BeAtHome.com, Inc. of Fargo, North Dakota. Total general and administrative costs incurred in our Fargo, North Dakota facility, including payroll, administrative, and operational costs, contributed approximately $700,000 of the $2.8 million increase in general and administrative spending during 2002.

General and administrative expense for 2001 increased to $6.9 million from $5.8 million in 2000. These expenses represented 9.1% of total revenues in 2001 and 11.7% of total revenues in 2000. The increase in general and administrative expenses was primarily due to a $475,000 settlement charge related to the Calabrese patent infringement lawsuit, an increase in our allowance for bad debts, increased payroll and related expenses resulting from the addition of three employees during the year, increased legal fees, and increased insurance premiums.

Non-recurring benefit. In the fourth quarter of 1999, our Board of Directors approved a relocation plan to exit our previous Palo Alto, California leased facilities and relocate to a new leased facility in San Jose, California. During the first two quarters of 2000, we temporarily moved our operations from Palo Alto to a facility in Sunnyvale, California. In October 2001, we relocated to our new corporate headquarters in San Jose. As a result of vacating the Palo Alto facilities, we recorded a charge of $549,000, which was charged as an expense in 1999 and was paid over the remaining lease term through June 30, 2000. In the second quarter of 2000, we recorded a reversal of the excess of the estimate over the actual expenditures for the non-recurring charge of $48,000.

Interest and other income, net (in thousands)

	Years Ended December 31,			2002 over 2001	2001 over 2000
	2002	2001	2000	% Change	% Change
Interest and other income, net U.S.	$3,777	$6,655	$4,019	(43.2%)	65.6%

	Years Ended December 31,			2002 over 2001	2001 over 2000
As a % of Net Revenue	2002	2001	2000	% Change	% Change
Interest and other income, net U.S.	3.1%	8.7%	8.2%	(5.6%)	0.5%

Interest and other income, net, primarily reflects interest earned on our cash and short-term investment balances. Interest and other income, net for 2002 decreased to $3.8 million from $6.7 million in 2001. Although the average amount of our invested cash increased during 2002, the impact of the Federal Reserve Board's short-term interest rate reductions during 2001, and then again in late 2002, negatively impacted our interest income during 2002. As short-term investments purchased in 2000 and 2001 matured during 2002, we were forced to re-invest those funds in instruments with lower effective yields, thus reducing interest income.

During 2001, interest and other income, net increased to $6.7 million from $4.0 million in 2000. This increase was primarily due to the higher average balance of invested cash generated from normal operations during 2002 particularly offset by decreasing rates of return on these invested funds as short-term interest rates declined during 2001.

Provision for income taxes (in thousands)

	Years Ended December 31,			2002 over 2001	2001 over 2000
	2002	2001	2000	% Change	% Change
Provision for income taxes U.S.	$1,457	$252	$145	478.2%	73.8%

	Years Ended December 31,			2002 over 2001	2001 over 2000
As a % of Net Revenue	2002	2001	2000	% Change	% Change
Provision for income taxes U.S.	1.19%	0.3%	0.3%	0.9%	0.0%

The 2002 provision for income taxes relates to federal, state and foreign taxes. We did not provide any federal taxes in 2002 due to the utilization of net operating loss carry forwards and the relief provided by the 2002 Tax Act on alternative minimum taxes. The federal taxes provided were $34,000 in 2001. We did not provide any federal taxes in 2000 due to our net operating losses. State taxes have been provided for various state income and minimum taxes. The state taxes provided were $439,000 for 2002, $111,000 for 2001, and $28,000 for 2000. Foreign taxes have been provided for certain profitable foreign subsidiaries. The foreign taxes provided were $1,018,000 for 2002, $107,000 for 2001, and $117,000 for 2000.

Selected Quarterly Results of Operations

The following tables set forth certain consolidated statement of operations data for each of the quarters in 2002 and 2001, as well as the percentage of our net revenues represented by each item. This information has been derived from our quarterly unaudited consolidated financial statements. The quarterly unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements included in this report and include all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of such information when read in conjunction with our annual audited consolidated financial statements and notes appearing elsewhere in this report. The operating results for any quarter do not necessarily indicate the results for any subsequent period or for the entire fiscal year.

	Quarter Ended							
	Q402	Q302	Q202	Q102	Q401	Q301	Q201	Q101
	(in thousands, except per share data)							
Consolidated Statement of Operations Data:								
Net revenues:								
Product	$30,295	$33,073	$30,860	$27,226	$31,763	$17,655	$13,247	$12,112
Service	286	277	458	359	338	328	670	476
Total net revenues	30,581	33,350	31,318	27,585	32,101	17,983	13,917	12,588
Cost of revenues:								
Cost of product	14,483	15,630	14,111	12,835	16,292	8,697	5,600	4,253
Cost of service	730	699	780	671	606	518	686	537
Total cost of revenues	15,213	16,329	14,891	13,506	16,898	9,215	6,286	4,790
Gross profit	15,368	17,021	16,427	14,079	15,203	8,768	7,631	7,798
Operating expenses:								
Product development	5,055	5,405	5,376	5,620	4,820	4,320	4,064	3,824
Sales and marketing	4,358	4,354	4,293	4,286	4,316	3,732	3,848	3,891
General and administrative	2,839	2,394	2,226	2,252	1,703	1,438	1,487	2,314
Total operating expenses	12,252	12,153	11,895	12,158	10,839	9,490	9,399	10,029
Income/(loss) from operations	3,116	4,868	4,532	1,921	4,364	(722)	(1,768)	(2,231)
Interest and other income, net	844	922	1,011	1,000	1,083	1,511	1,807	2,254
Income before provision for income taxes	3,960	5,790	5,543	2,921	5,447	789	39	23
Provision for income taxes	317	463	443	234	218	32	1	1
Net income	$ 3,643	$ 5,327	$ 5,100	$ 2,687	$ 5,229	$ 757	$ 38	$ 22
Income per share:								
Basic	$ 0.09	$ 0.13	$ 0.13	$ 0.07	$ 0.14	$ 0.02	$ 0.00	$ 0.00
Diluted	$ 0.09	$ 0.13	$ 0.12	$ 0.07	$ 0.13	$ 0.02	$ 0.00	$ 0.00
Shares used in per share calculation:								
Basic	39,685	39,658	39,443	39,029	38,502	38,648	38,482	38,053
Diluted	40,557	40,619	40,818	41,085	40,612	41,526	41,458	40,916

	Quarter Ended							
	Q402	Q302	Q202	Q102	Q401	Q301	Q201	Q101
	(in thousands, except per share data)							
Net revenues:								
Product	99.1%	99.2%	98.5%	98.7%	98.9%	98.2%	95.2%	96.2%
Service	0.9	0.8	1.5	1.3	1.1	1.8	4.8	3.8
Total net revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cost of revenues:								
Cost of product	47.4	46.9	45.1	46.5	50.8	48.4	40.2	33.8
Cost of service	2.4	2.1	2.5	2.4	1.9	2.9	4.9	4.3
Total cost of revenues	49.8	49.0	47.6	48.9	52.6	51.2	45.2	38.1
Gross profit	50.2	51.0	52.4	51.1	47.4	48.8	54.8	61.9
Operating expenses:								
Product development	16.5	16.2	17.2	20.4	15.0	24.0	29.2	30.4
Sales and marketing	14.3	13.1	13.7	15.5	13.4	20.8	27.6	30.9
General and administrative	9.3	7.2	7.1	8.2	5.3	8.0	10.7	18.4
Total operating expenses	40.1	36.5	38.0	44.1	33.8	52.8	67.5	79.7
Income/(loss) from operations	10.1	14.5	14.4	7.0	13.6	(4.0)	(12.7)	(17.7)
Interest and other income, net	2.8	2.8	3.2	3.6	3.4	8.4	13.0	17.9
Income before provision for income taxes	12.9	17.3	17.6	10.6	17.0	4.4	0.3	0.2
Provision for income taxes	1.0	1.4	1.4	0.8	0.7	0.2	0.0	0.0
Net income	11.9%	15.9%	16.2%	9.8%	16.3%	4.2%	0.3%	0.2%

Net revenues. During 2002, quarterly net revenues ranged from a low of $27.6 million in the first quarter to a high of $33.4 million in the third quarter. The fluctuations from quarter to quarter were due primarily to the level of sales activity under the Enel program. Quarterly net revenues under the Enel program ranged from a low of $17.6 million in the first quarter to a high of $23.2 million in the third quarter. The quarterly fluctuations in Enel program revenues are due to the quantity of products we sell to Enel and its contract manufacturers during the course of any given quarter. These increases and decreases from quarter to quarter are the result of several factors, including Enel's installation rates, inventory levels at Enel's contract manufacturers, and the impact of Enel's transitioning of meter manufacturing from one contract manufacturer to another. We expect similar quarterly fluctuations will continue for the duration of the program. We expect the program to conclude in late 2004 or early 2005.

Without the inclusion of Enel program revenues, 2002 quarterly net revenues ranged from a low of $10.0 million in the first quarter to a high of $10.8 million in the second quarter. While we observed no specific quarterly trends in our non-Enel revenues during the year, this business continued to be impacted by poor economic conditions around the world. In addition, we generally find that, in any given year, revenues for non-Enel related products and services tend to be flat or lower in the third quarter than the preceding quarter due to the seasonal nature of some of our international markets.

During 2001, quarterly net revenues increased sequentially primarily due to increasing shipment of product under the Enel program. Without the inclusion of the Enel program revenues, net revenues decreased sequentially in each quarter of 2001. These decreases were primarily due to worsening economic conditions around the world, and to a lesser extent, the impact of exchange rates, principally the Japanese Yen, on sales made in foreign currencies.

Gross profit. During 2002, quarterly gross profit as a percentage of net revenue ranged from a low of 50.2% in the fourth quarter to a high of 52.4% in the second quarter. These fluctuations from quarter to quarter are the result of several factors, including the mix of products shipped during the quarter, overhead spending related to manufacturing and procurement, and inventory levels. The increase in gross profit as a percentage of net revenues in the first quarter of 2002 as compared to the fourth quarter of 2001 was primarily attributable to a reduction in the amount of products shipped under the Enel program. On average, these products generate a lower gross profit percentage than do our other products.

During 2001, gross profit as a percentage of net revenues decreased sequentially in each quarter. These decreases were primarily attributable to corresponding increases in the quantity of products shipped under the Enel program during each quarter.

Product development. Product development expenses tend to fluctuate from quarter to quarter for a variety of reasons, including the hiring of new personnel and the use of consultants who support our development efforts. The primary reason for the increase in product development expenses in the first quarter of 2002 as compared to the fourth quarter of 2001 was the inclusion of product development related expenses in our Fargo, North Dakota location (formerly BeAtHome.com, Inc.), which we acquired in January 2002. Included in these first quarter product development expenses was a $400,000 charge associated with in-process research and development. The decrease in product development expenses in the fourth quarter of 2002 as compared to the third quarter of 2002 was primarily related to decreased personnel expenses, decreased use of consultants, and decreased travel expenses.

During 2001, product development expenses increased in each quarter due primarily to the hiring of additional development personnel and the use of external consultants. Additionally, in mid-February 2001, we acquired ARIGO Software GmbH, a Germany based developer of LONWORKS hardware and software products. The product development expenses incurred in our Germany location increased during the second quarter of 2001 compared to the first quarter as a result of a full quarter's activity following the acquisition of ARIGO.

Sales and marketing. Sales and marketing expenses tend to fluctuate on a quarterly basis given the timing of various marketing programs and the timing of commissions, which are earned by our salespeople as products and services are sold to our customers. Quarterly fluctuations in exchange rates as compared to the U.S. dollar also impact sales and marketing expenses in the various international locations where we have sales and marketing operations.

Increased sales and marketing expenses in the fourth quarter of 2001 as compared to the third quarter relate primarily to costs associated with our LonWorld tradeshow, which was held in October 2001, as well as costs associated with our new corporate headquarters in San Jose, including costs to relocate from our previous facility in Sunnyvale, California.

General and administrative. General and administrative expenses can vary between quarters primarily due to the timing of certain legal and travel expenses. General and administrative expenses increased in the first quarter of 2002 as compared to the fourth quarter of 2001 primarily due to increased compensation related expenses and increased legal fees. Also contributing to the increase in the first quarter of 2001 were general and administrative costs incurred in our Fargo, North Dakota location following the acquisition of BeAtHome. The increase in general and administrative expenses in the fourth quarter of 2002 as compared to the third quarter was primarily attributable to legal and other third party expenses incurred in conjunction with a contemplated business transaction that we decided not to pursue further during the fourth quarter.

The increase in general and administrative expenses in the fourth quarter of 2001 as compared to the third quarter was primarily the result of additional payroll expenses associated with modifications made to our management structure. In addition, costs associated with our new corporate headquarters facility in San Jose, including costs to relocate from our previous facility in Sunnyvale, also contributed to increased fourth quarter spending. During the first quarter of 2001, general and administrative costs increased primarily due to the payment of a $475,000 settlement charge related to a patent infringement lawsuit brought against us and related legal fees.

Interest and other income, net. Interest and other income, net, varies from quarter to quarter depending on the average amount of cash, cash equivalents, and short-term investments we have invested during the quarter. These balances can change on a monthly basis due to receivables collection efforts, changes in inventory levels, expense timing, and other operating and investing activities. In addition, since our investment policy mandates that investments must mature within two years from the date of purchase, fluctuations in short-term interest rates can also have a material impact on our interest income from quarter to quarter.

During 2002, interest and other income, net ranged from a low of $844,000 in the fourth quarter to a high of $1.0 million in the second quarter. Although the average amount of our invested cash increased sequentially during each quarter of 2002, the impact of the Federal Reserve Board's short-term interest rate reductions during 2001, and then again in late 2002, negatively impacted our interest income during 2002. As short-term investments purchased in 2000 and 2001 matured during 2002, we were forced to re-invest those funds in instruments with lower effective yields, thus reducing interest income.

During 2001, as the Federal Reserve Board reduced short-term interest rates, the rates of return on our invested cash balances reflected corresponding decreases. In addition, throughout 2001, as our accounts receivable and inventory balances grew, and as capital expenditures related to our new corporate headquarters facility in San Jose increased, our average balance of invested cash decreased. Lastly, late in the third quarter of 2001, our Board of Directors approved a stock repurchase program, under which we bought 265,000 shares of our common stock for a total price of $3.2 million. This repurchase further reduced our average invested cash balance later in the year and resulted in decreased interest income in the fourth quarter.

Liquidity and Capital Resources

Since our inception, we have financed our operations and met our capital expenditure requirements primarily from the sale of preferred stock and common stock. From our inception through December 31, 2002, we raised $269.3 million from the sale of preferred stock and common stock.

In July 1998, we consummated an initial public offering of 5,000,000 shares of our common stock at a price to the public of $7.00 per share. The net proceeds from the offering were about $31.7 million. Concurrent with the closing of our initial public offering, 7,887,381 shares of convertible preferred stock were converted into an equivalent number of shares of common stock. The net proceeds received upon the consummation of such offering were invested in short-term, investment-grade, interest-bearing instruments.

In September 2000, we consummated a sale of 3.0 million shares of our common stock to Enel. The net proceeds of the sale were about $130.7 million.

In September 2001, our Board of Directors approved a stock repurchase program which authorizes us to repurchase up to 2.0 million shares of our common stock, in accordance with Rule 10b-18 and other applicable laws, rules and regulations. Unless otherwise terminated by the Board, the program will be in effect for a period of two years from the date of the first purchase under the program. In September 2001, we repurchased 265,000 shares under the program at a cost of $3.2 million. As of December 31, 2002, approximately 1.7 million shares remained available for repurchase under the program.

As of December 31, 2002, our principal sources of liquidity included cash and cash equivalents and short-term investments of $134.5 million ($111.7 million as of December 31, 2001) and trade accounts receivable of $22.9 million ($29.1 million as of December 31, 2001). As of December 31, 2002, we had working capital, defined as current assets less current liabilities, of $156.3 million ($151.7 million as of December 31, 2001).

During 2002, net cash provided by operating activities was $38.7 million. Net cash used by operating activities was $17.8 million for 2001, and $6.0 million for 2000. Cash provided by operating activities in 2002 was primarily due to net income for the year, decreases in other current assets, accounts receivable, and inventories, partially offset by a decrease in accounts payable. Cash used in operating activities in 2001 was primarily due to increases in accounts receivable, other current assets, and inventories, partially offset by net income for the year and an increase in accounts payable. Cash used in operating activities in 2000 was primarily due to increases in inventories, accounts receivable, and other current assets, partially offset by an increase in accounts payable.

Net cash used in investing activities in 2002 of $30.7 million was principally due to the purchase of available-for-sale investments, the purchase of restricted investments, the purchase of BeAtHome.com, Inc., and capital expenditures, offset by the proceeds from sales and maturities of available-for-sale investments. Net cash used in investing activities in 2001 of $75.6 million was principally due to the purchase of available-for-sale investments, capital expenditures related to our new corporate headquarters facility in San Jose, and an increase in other long-term assets, partially offset by the proceeds from sales and maturities of available-for-sale investments. Net cash used in investing activities in 2000 of $21.1 million was principally due to the purchase of available-for-sale investments, capital expenditures, and changes in other long-term assets, offset by the proceeds from sales and maturities of available-for-sale investments.

We believe that our existing available cash, cash equivalents and short-term investments will satisfy our projected working capital and other cash requirements for at least the next twelve months. However, in the unlikely event that we would require additional financing within this period, such financing may not be available to us in the amounts or at the times that we require, or on acceptable terms. If we fail to obtain additional financing, when and if necessary, our business would be harmed.

Recent Accounting Pronouncements

In April 2002, the FASB issued SFAS No. 145, or SFAS 145, *"Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections."* SFAS 145 updates, clarifies and simplifies existing accounting pronouncements including: rescinding SFAS 4, which required all gains and losses from extinguishments of debt to be aggregated and, if material, classified as an extraordinary item, net of the related income tax effect, and amending SFAS 13 to require that certain lease modifications that have economic effects similar to sale-leaseback transactions be accounted for in the same manner as sale-leaseback transactions. SFAS 145 is effective for fiscal years beginning after May 15, 2002, with early adoption of the provisions related to the rescission of SFAS 4 encouraged. We do not expect the adoption of SFAS 145 to have a material impact on our financial position, results of operations, or cash flows.

In June 2002, the FASB issued SFAS No. 146, or SFAS 146, *"Accounting for Costs Associated with Exit or Disposal Activities."* SFAS 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred and states that an entity's commitment to an exit plan, by itself, does not create a present obligation that meets the definition of a liability. SFAS 146 also establishes that fair value is the objective for initial measurement of the liability. The provisions of SFAS 146 are effective for exit or disposal activities initiated after December 31, 2002. We adopted SFAS 146 on January 1, 2003. The adoption did not have a material impact on our financial position, results of operations, or cash flows.

In November 2002, the FASB issued FASB Interpretation No. 45, or FIN 45, *"Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others."* FIN 45 elaborates on the existing disclosure requirements for most guarantees, including loan guarantees such as standby letters of credit. It also clarifies that at the time a company issues a guarantee, the company must recognize an initial liability for the fair value, or market value, of the obligations it assumes under the guarantee and must disclose that information in its interim and annual financial statements. The provisions related to recognizing a liability at inception of the guarantee for the fair value of the guarantor's obligations do not apply to product warranties or to guarantees accounted for as derivatives. The initial recognition and initial measurement provisions apply on a prospective basis to guarantees issued or modified after December 31, 2002. We adopted FIN 45 on January 1, 2003. The adoption did not have a material impact on our financial position, results of operations, or cash flows.

In December 2002, the FASB issued SFAS No. 148, or SFAS 148, *"Accounting for Stock-Based Compensation — Transition and Disclosure — an amendment of FASB Statement No. 123."* SFAS 148 amends SFAS No. 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, SFAS No. 148 amends the disclosure requirements of SFAS No. 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. We are required to follow the prescribed format and provide the additional disclosures required by SFAS No. 148 in our annual financial statements for the year ending December 31, 2002 and must also provide the disclosures in our quarterly reports containing condensed financial statements for interim periods beginning with the quarterly period ending March 31, 2003. The adoption of SFAS No. 148 will not have an effect on our financial position or results of operations as we do not intend to adopt the fair value method of accounting for stock-based employee compensation.

In January 2003, the FASB issued Interpretation No. 46, or FIN 46, *"Consolidation of Variable Interest Entities."* In general, a variable interest entity is a corporation, partnership, trust, or any other legal structure used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors that do not provide sufficient financial resources for the entity to support its activities. FIN 46 requires a variable interest entity to be consolidated by a company if that company is subject to a majority of the risk of loss from the variable interest entity's activities or entitled to receive a majority of the entity's residual returns or both. The consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003. The consolidation requirements apply to older entities in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply in all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. We believe that the adoption of FIN 46 will not have a material impact on our financial position, results of operations, or cash flows.

In January 2003, the Emerging Issues Task Force, or EITF, published EITF Issue 00-21, or EITF 00-21, *"Revenue Arrangements with Multiple Deliverables,"* which requires companies to determine whether an arrangement involving multiple deliverables contains more than one unit of accounting. In applying EITF 00-21, revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet certain criteria. Arrangement consideration should be allocated among the separate units of accounting based on their relative fair values. EITF 00-21 is effective for revenue arrangements entered into in fiscal periods beginning after June 15, 2003. We are currently evaluating the impact the adoption of EITF 00-21 will have on our financial position, results of operations, and cash flows.

FACTORS THAT MAY AFFECT FUTURE RESULTS OF OPERATIONS

Interested persons should carefully consider the risks described below in evaluating Echelon. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected. In that case, the trading price of our common stock could decline.

Our future results would be significantly harmed if our project with Enel is terminated or is not successful.

In June 2000, we entered into a research and development agreement with an affiliate of Enel S.p.A., an Italian utility company. Under the terms of the agreement, we agreed to work with Enel to integrate our LonWorks technology into Enel's Contatore Elettronico remote metering management project in Italy. For the year ending December 31, 2002, revenue attributable to the Contatore Elettronico project was approximately $81.6 million, or 66.4% of our total revenue. We expect the Contatore Elettronico project to account for the majority of our targeted revenue for 2003.

We face a number of risks as we continue this project, including:

- a dispute could develop between Enel and our company regarding product suitability, quality, price, quantities or other issues. If any dispute is not resolved in a timely manner, the project could be delayed, could become less profitable to us, could result in damages or losses, or either we or Enel could seek to terminate the research and development agreement;
- Enel could decide to no longer pursue the Contatore Elettronico project to the extent we currently contemplate, or at all, and Enel could then seek to curtail or terminate the project;
- under the Contatore Elettronico project, each order for electricity meters must be made by public tender. The next public tender for electricity meters may not be completed in a timely fashion, and this may delay production of electricity meters with an associated delay in shipments of products by us to Enel's contract equipment manufacturers;
- once they have been manufactured, electricity meters or other products used in the Contatore Elettronico project may not be installed by Enel in accordance with Enel's scheduled roll-out plan. Also, Enel could also decide to reduce its inventories of electricity meters. As a result, excess inventories could develop for periods of time, which could result in the delay or cancellation of additional product shipments to Enel and the contract equipment manufacturers that Enel has selected to manufacture electricity meters for the project;
- Enel may not successfully develop or maintain the management center software to monitor and control the electricity meters and other products used in the Contatore Elettronico project, or the management center

software that Enel develops may not be scalable enough to support the estimated 27 million meters that Enel intends to install as part of the project. As a result, Enel might reduce purchases of electricity meters or other products, thereby reducing future shipments of our products;

- the research and development agreement between Enel and our company might be terminated if, among other things, either party materially breaches its obligations under the agreement;
- third parties may contest part or all of our agreement with Enel, or the Contatore Elettronico project in general. For example, the European Union and/or the Italian government could require a change in the system architecture or the sources of supply in order to satisfy rules regarding competition, thereby delaying or changing the scope of the project; or
- our research and development activities under the Contatore Elettronico project might be unsuccessful, or the products we develop might not be commercially exploitable or yield economic returns.

Any of these factors would cause our revenues and income to suffer, which would significantly and adversely affect our financial condition and operating results.

The performance of the contract equipment manufacturers that Enel has selected to manufacture electricity meters could affect our project with Enel.

Enel has selected several contract equipment manufacturers, or meter manufacturers, to manufacture electricity meters for the Contatore Elettronico project. We sell a product called a metering kit to these meter manufacturers as part of this project. Our shipments of metering kits depend to a large extent on the production of electricity meters. In addition, the sales of our concentrator products to Enel depend, in part, on the production of electricity meters. Our success under the Contatore Elettronico project could be affected by the meter manufacturers for many reasons, including:

- the meter manufacturers may experience a loss of production in 2003 as they transition from manufacturing electricity meters using our current form of metering kit to a newer form of metering kit based upon our PL 3120 Smart Transceiver, or during the transition from the then current design of electricity meter to a newer design of electricity meter;
- the meter manufacturers may not achieve their intended production levels;
- we may be prohibited by government trade sanctions from selling metering kits to one or more meter manufacturers;
- the meter manufacturers may not be able to maintain product quality at the levels required to successfully install electricity meters;
- the meter manufacturers may not maintain sufficient net working capital to fund production of electricity meters or may fail to provide letters of credit that we mandate;
- the meter manufacturers may experience excess raw material and finished goods inventories if they fail to achieve intended production and/or quality levels and may therefore reduce future purchases of our products until their inventories return to acceptable levels; and
- if the meter manufacturers fail to meet their intended production or quality levels, fail to pay us in accordance with agreed-upon payment terms for products we ship to them, or breach any of their agreements with us, we could elect to cancel orders for products from meter manufacturers, delay shipment of products to meter manufacturers, or otherwise fail to achieve our revenue targets for the Contatore Elettronico project.

Additionally, if any of Enel's meter manufacturers were to experience cash flow problems resulting from one or more of the above listed failures, or any other factor, we could be forced to provide a bad debt reserve for some or all of the unpaid balances that meter manufacturer owed us for products we previously shipped to them. Given the volume of products that Enel's meter manufacturers purchase from us, any bad debt provision we would be required to make would most likely be in a material amount, and therefore, would have an adverse affect on our financial condition and operating results.

Once the Enel project is completed or terminated, our overall revenue will decline significantly if we do not expand our customer base.

If Enel continues to deploy its Contatore Elettronico project in accordance with its scheduled roll-out plan, we expect that revenues from the Enel project will continue to account for a significant portion of our overall revenues through 2004. Once the project is completed, or otherwise terminated, our revenues from Enel and its meter manufacturers will become negligible. Accordingly, we continue to seek new revenue opportunities with other utility companies around the world.

We believe that utility companies generally require a lengthier sales cycle than do most of our other customers. In most instances, one or more field trials of our products may be required before a final decision is made by the utility. Even if field trials are successful, we may not be able to negotiate mutually agreeable pricing terms with the utility. If the utility decides to move forward with a mass deployment, there is generally an extended development and integration effort required in order to incorporate the new technology into the utility's existing infrastructure. Due to the extended sales cycle and the additional development and integration time required, we cannot assure you that we will be able to find a replacement for the Enel project before the Enel project is terminated or completed. If we are not able to replace the revenues generated by the Enel project, our revenues and results of operations will be harmed.

Our future utility market product offerings may not be accepted by our targeted customers, or may fail to meet our financial targets.

In May 2002, we formed a Service Provider Group tasked with selling our networked energy services, or NES, system to utility companies around the world. To be successful in this effort, we intend to continue investing significant resources in the development of the NES system. We cannot assure you that our NES system will be accepted in the utility market place. For example, in order to realize all of the benefits of the NES system, a utility must replace their metering infrastructure with a homogenous population of intelligent, networked meters. To date, Enel is the only utility we know of that has committed to such an endeavor. We also cannot assure you that, if accepted by the utilities, our NES system will generate economic returns that meet our financial targets. For example, revenues from our NES system offering may be lower than we anticipate. Additionally, the gross margins we receive from our NES system offering may not be as high as our other products. If we are unsuccessful in deploying this product, or otherwise fail to meet our financial targets for this product, our revenues and results of operations will be harmed.

We have a history of losses, and we may incur losses in the future.

We generated a profit of $16.8 million for the year ending December 31, 2002. As of December 31, 2002, we had an accumulated deficit of $71.5 million. We have invested and continue to invest significant financial resources in product development, marketing and sales. Additionally, during 2003, we will begin paying rent for additional facilities and amortizing certain leasehold improvements pursuant to a lease agreement we signed in 2000. If our revenues do not increase significantly, increases in our product development, marketing and sales, and facilities expenses may result in decreased profitability, or a loss of profitability altogether. We cannot be certain that our profitability will continue or increase on a quarterly or annual basis.

Our future operating results will depend on many factors, including:

- the timely installation of Enel's Contatore Elettronico project;
- the adoption of our products by service providers for use in utility and/or other home automation projects similar to Enel's Contatore Elettronico project;
- the return of worldwide economic growth, particularly in certain industries such as semiconductor manufacturing equipment;
- the growth in acceptance of our products by OEMs, systems integrators, service providers and end-users;
- the level of competition that we face;
- our ability to attract new customers in light of increased competition;

- our ability to develop and market new products in a timely and cost-effective basis, or at all;
- costs associated with future business acquisitions, including up-front in-process research and development charges and ongoing amortization expenses related to other identified intangible assets;
- ongoing operational expenses associated with our acquisition of BeAtHome and any future business acquisitions;
- the results of impairment tests that we will perform from time to time in the future, in accordance with SFAS 142, with respect to goodwill and other identified intangible assets that we acquired in the past or that we may acquire in the future. If the results of these impairment tests indicate that an impairment event has taken place, we will be required to take an asset impairment charge that could have a material adverse effect on our operating results; and
- general economic conditions.

As of December 31, 2002, we had net operating loss carry forwards for Federal income tax reporting purposes of about $92.8 million and for state income tax reporting purposes of about $8.7 million, which expire at various dates through 2021. In addition, as of December 31, 2002, we had tax credit carry forwards of about $9.7 million, $6.0 million of which expire at various dates through 2021. The Internal Revenue Code of 1986, as amended, contains provisions that limit the use in future periods of net operating loss and credit carry forwards upon the occurrence of certain events, including significant changes in ownership interests. We have performed an analysis of our ownership changes and have reported the net operating loss and credit carry forwards considering such limitations. We had deferred tax assets, including our net operating loss carry forwards and tax credits, totaling about $48.0 million as of December 31, 2001. We have recorded a valuation allowance for the entire deferred tax asset as a result of uncertainties regarding the realization of the asset balance, our history of losses and the variability of our operating results.

Fluctuations in our operating results may cause our stock price to decline.

Our quarterly and annual results have varied significantly, and we have, on occasion, failed to meet securities analysts' expectations. Our future results may fluctuate and may not meet analysts' expectations in some future period. As a result, the price of our common stock could fluctuate or decline. The factors that could cause this variability, many of which are outside of our control, include the following:

- the Enel project may fail to meet analysts' expectations or our revenue and earnings guidance;
- we may fail to meet stockholder expectations relating to additional utility customers and applications;
- the rates at which OEMs purchase our products and services may fluctuate;
- we may fail to introduce new products on a timely basis or before the end of an existing product's life cycle;
- downturns in any customer's or potential customer's business, or declines in general economic conditions, could cause significant reductions in capital spending, thereby reducing the levels of orders from our customers;
- we may face increased competition;
- market acceptance of our products may decrease;
- our customers may delay or cancel their orders;
- the mix of products and services that we sell may change to a less profitable mix;
- shipment and payment schedules may be delayed;
- our pricing policies or those of our competitors may change;
- our product distribution may change; and
- product ratings by industry analysts and endorsements of competing products by industry groups could hurt the market acceptance of our products.

In addition, our expense levels are based, in significant part, on the future revenues that we expect. Consequently, if our revenues are less than we expect, our expense levels could be disproportionately high as a percentage of total revenues, which would negatively affect our profitability.

We depend on a limited number of key manufacturers and use contract electronic manufacturers for most of our products requiring assembly. If any of these manufacturers terminates or decreases its relationships with us, we may not be able to supply our products and our revenues would suffer.

The Neuron Chip is an important component that our customers use in control network devices. In addition, the Neuron Chip is an important device that we use in many of our products. Neuron Chips are currently manufactured and distributed by Toshiba and Cypress Semiconductor under license agreements we maintain with them. The agreements, among other things, grant Toshiba and Cypress the worldwide right to manufacture and distribute Neuron Chips using technology licensed from us, and require us to provide support and unspecified updates to the licensed technology over the terms of the agreements. The Cypress agreement expires in April 2009, and the Toshiba agreement expires in January 2010. We currently have no other source of supply for Neuron Chips other than Toshiba and Cypress. Both Toshiba and Cypress are expected to play a key role in the development and marketing of LonWorks technology. If we lose Toshiba or Cypress as a supplier, we may not be able to locate an alternate source for the design, manufacture or distribution of Neuron Chips.

We also maintain manufacturing agreements with other semiconductor manufacturers for the production of key products, including those used in the Enel program. For example, we recently announced a new product family that we refer to as Power Line Smart Transceivers. A sole source supplier, STMicroelectronics, manufactures these products. Additionally, On Semiconductor and AMI Semiconductor are sole source suppliers of components we sell to Enel's meter manufacturers. We currently have no other source of supply for Power Line Smart Transceivers or the components manufactured by On Semiconductor and AMI Semiconductor.

Our future success will also depend significantly on our ability to manufacture our products cost-effectively and in sufficient volumes. For most of our products requiring assembly, we use contract electronic manufacturers, including WKK Technology, Able Electronics, and TYCO TEPC/Transpower. These contract electronic manufacturers procure material and assemble, test, and inspect the final products to our specifications. This strategy involves certain risks. By using third parties to manufacture our products, we have reduced control over delivery schedules, product availability, manufacturing yields, quality and costs. In addition, contract electronic manufacturers can themselves experience turnover and instability, exposing us to additional risks as well as missed commitments to our customers. We will also face risks if and when we transition between contract electronic manufacturers. For example, we may have to move raw material and in process inventory between locations in different parts of the world. Also, we would be required to re-establish acceptable manufacturing processes with a new work force. We could also be liable for excess or unused inventory held by contract manufacturers for use in our products. This inventory may become obsolete as a result of engineering changes that we make. In addition, we may no longer need this inventory because of factors such as changes in our production build plans, miscommunication between us and a contract manufacturer or errors made by a contract manufacturer in ordering material for use in our products. Under our contracts with these contract electronic manufacturers, we would become liable for all or some of these excess or obsolete inventories in the event our manufacturing agreement with them is cancelled and they are unable to return the material to their suppliers.

The failure of any key manufacturer to produce products on time, at agreed quality levels, and fully compliant to our product, assembly and test specifications could adversely affect our revenues and gross profit, and could result in claims against us by our customers.

Since we depend on sole or a limited number of suppliers, any shortage or interruptions of supply would adversely affect our revenues and/or gross profits.

We currently purchase several key products and components only from sole or limited sources. In the past, we have occasionally experienced shortages or interruptions in supply for certain of these items, which caused us to delay shipments beyond targeted or announced dates. If we experience any shortage of products or components of acceptable quality, or any interruption in the supply of these products or components, or if we are not able to procure these products or components from alternate sources at acceptable prices and within a reasonable period of time, our revenues, gross profits or both could decrease. In addition, under the terms of some of our contracts with our customers, we may also be subject to penalties if we fail to deliver our products on time.

Our business may suffer if it is alleged or found that we have infringed the intellectual property rights of others.

Although we attempt to avoid infringing known proprietary rights of third parties in our product development efforts, from time to time we may receive notice that a third party believes that we may be infringing certain patents or other intellectual property rights of that third party. Responding to those claims, regardless of their merit, can be time consuming, result in costly litigation, divert management's attention and resources and cause us to incur significant expenses. In that case, we may elect or be required to redesign our products so that they do not incorporate any intellectual property to which the third party has or claims rights. As a result, some of our product offerings could be delayed, or we could be required to cease distributing some of our products. In the alternative, we could seek a license for the third party's intellectual property, but it is possible that we would not be able to obtain such a license on reasonable terms, or at all. Any delays that we might then suffer or additional expenses that we might then incur could adversely affect our revenues, operating results and financial condition.

Our markets are highly competitive. Many of our competitors have longer operating histories and greater resources than we do. If we are unable to effectively compete in the industry, our operating results could be harmed.

Competition in our markets is intense and involves rapidly changing technologies, evolving industry standards, frequent new product introductions and rapid changes in customer requirements. To maintain and improve our competitive position, we must continue to develop and introduce, on a timely and cost-effective basis, new products, features and services that keep pace with the evolving needs of our customers. The principal competitive factors that affect the markets for our control network products include the following:

- our customer service and support;
- our ability to develop and introduce new products on a timely basis;
- our product reputation, quality, and performance; and
- the price and features of our products such as adaptability, scalability, the ability to integrate with other products, functionality, and ease of use.

In each of our markets, we compete with a wide array of manufacturers, vendors, strategic alliances, systems developers and other businesses. Our competitors include some of the largest companies in the electronics industry, such as Siemens in the building and industrial automation industries, and Allen-Bradley (a subsidiary of Rockwell) and Group Schneider in the industrial automation industry. Many of our competitors, alone or together with their trade associations and partners, have significantly greater financial, technical, marketing, service and other resources, significantly greater name recognition and broader product offerings. As a result, these competitors may be able to devote greater resources to the development, marketing and sale of their products, and may be able to respond more quickly to changes in customer requirements or product technology. In addition, those competitors that manufacture and promote closed, proprietary control systems may enjoy a captive customer base dependent on such competitors for service, maintenance, upgrades and enhancements. Microsoft has announced a specification that it refers to as SCP (Simple Control Protocol) that is targeted at the networking of everyday devices. Microsoft has announced its intent to focus this capability on home networking applications. Products from other companies such as Digi International, emWare, Ipsil, JumpTec, Lantronix, and Wind River Systems, as well as certain micro-controller manufacturers including Motorola, Micro Chip, and Phillips, all of which promote directly connecting devices to the Internet, could also compete with our products. Products from companies such as DCSI, Hexagram, Hunt Technologies, Itron, Nexus, Ramar, and Schlumberger Sema, each of which offer automatic meter reading (AMR) products for the utility industry, could compete with our broader networked energy services offerings to the utility marketplace.

Many of our competitors develop, support, and promote alternative control systems. If we are unable to promote and expand acceptance of our open, interoperable control system, our revenues and operating results may be harmed.

Many of our current and prospective competitors are dedicated to promoting closed or proprietary systems, technologies, software and network protocols or product standards that differ from or are incompatible with ours. In some cases, companies have established associations or cooperative relationships to enhance the competitiveness and popularity of their products, or to promote these different or incompatible technologies, protocols and standards. For example, in the building automation market, we face widespread reluctance by vendors of traditional closed or proprietary control systems, who enjoy a captive market for servicing and replacing equipment, to use our interoperable technologies. We also face strong competition by large trade associations that promote alternative technologies and standards in their native countries, such as the Konnex Association in Belgium, and the European Installation Bus Association in Germany, each of which has over 100 members and licensees. Other examples include various industry groups who promote alternative open standards such as BACnet in the building market, DALI in the lighting controls market, and a group comprised of Asea Brown Boveri, ADtranz AB, Siemens, GEC Alstrom and other manufacturers that support an alternative rail transportation protocol to our LonWorks protocol. Our technologies, protocols, or standards may not be successful in any of our markets, and we may not be able to compete with new or enhanced products or standards introduced by existing or future competitors.

We promote an open technology platform that could increase our competition.

LonWorks technology is open, meaning that many of our technology patents are broadly licensed without royalties or license fees. As a result, our customers are capable of developing hardware and software solutions that compete with some of our products. Because some of our customers are OEMs that develop and market their own control systems, these customers in particular could develop competing products based on our open technology. For instance, all of the network management commands required to develop software that competes with our LNS software are published. This could decrease the market for our products and increase the competition that we face.

Downturns in the control network technology market and related markets may decrease our revenues and margins.

The market for our products depends on economic conditions affecting the broader control network technology and related markets. Downturns in these markets may cause our OEMs and system integrators to delay or cancel projects, reduce their production or reduce or cancel orders for our products. In this environment, customers may experience financial difficulty, cease operations or fail to budget for the purchase of our products. This, in turn, may lead to longer sales cycles, delays in payment and collection, and price pressures, causing us to realize lower revenues and margins. In particular, capital spending in the technology sector has decreased over the past two years, and many of our customers and potential customers have experienced declines in their revenues and operations. In addition, concerns with respect to terrorism and geopolitical issues in the Middle East and Asia have added more uncertainty to the current economic environment. We cannot predict the impact of these events, or of any related military action, on our customers or business. We believe that, in light of these events, some businesses may further curtail or may eliminate capital spending on control network technology. If capital spending in our markets declines, it may be necessary for us to gain significant market share from our competitors in order to achieve our financial goals and maintain profitability.

The undetermined market acceptance of our products makes it difficult to evaluate our future prospects.

We face a number of risks as an emerging company in a rapidly changing and developing new market, and you must consider our prospects in light of the associated risks. Our future operating results are difficult to predict due to many factors, including the following:

- our targeted markets have not yet accepted many of our products and technologies;
- many of our customers do not fully support open, interoperable networks, and this reduces the market for our products;

- we may not anticipate changes in customer requirements and, even if we do so, we may not be able to develop new or improved products that meet these requirements in a timely manner, or at all;
- the markets in which we operate require rapid and continuous development of new products, and we have failed to meet some of our product development schedules in the past;
- potential changes in voluntary product standards around the world can significantly influence the markets in which we operate; and
- our industry is very competitive and many of our competitors have far greater resources and may be prepared to provide financial support from their other businesses in order to compete with us.

If our OEMs do not employ our products and technologies our revenues could decrease significantly.

To date, a substantial portion of our product sales has been to OEMs. The product and marketing decisions made by OEMs significantly affect the rate at which our products are used in control networks. We believe that since OEMs in certain industries receive a large portion of their revenues from sales of products and services to their installed base, these OEMs have tended to moderate the rate at which they incorporate LONWORKS technology into their products. They may believe that a more rapid transition to LONWORKS technology could harm their installed base business. Furthermore, OEMs that manufacture and promote products and technologies that compete or may compete with us may be particularly reluctant to employ our products and technologies to any significant extent, if at all. We may not be able to maintain or improve the current rate at which our products are accepted by OEMs and others, which could decrease our revenues.

If we do not maintain adequate distribution channels our revenues could decrease significantly.

Currently, significant portions of our revenues are derived from sales to distributors, including EBV, the sole independent distributor of our products to OEMs in Europe. Sales to EBV, our largest distributor, accounted for 9.2% of our total net revenues in 2002, 16.9% of our total net revenues in 2001, and 26.5% of our total net revenues in 2000. Worldwide sales to distributors, including those to EBV, accounted for approximately 14.2% of our total net revenues in 2002, 26.9% of our total net revenues in 2001, and 41.1% of our total net revenues in 2000.

Our current agreement with EBV expires in December 2003. If EBV, or any other existing or future distributor, fails to dedicate sufficient resources and efforts to marketing and selling our products, our revenues could decrease. If EBV significantly reduces its inventory levels for our products, both our revenues and customer service levels would decrease. If we do not maintain our agreement with EBV, we would be required to locate another distributor or add our own pan-European distribution capability to meet the needs of our customers. In that event, our business could be harmed during the transition period as EBV's inventory of our products was sold but not replaced.

If OEMs fail to develop interoperable products or if our targeted markets do not accept our interoperable products, we may be unable to generate sales of our products.

Our future operating success will depend, in significant part, on the successful development of interoperable products by OEMs and us, and the acceptance of interoperable products by systems integrators and end-users. We have expended considerable resources to develop, market and sell interoperable products, and have made these products a cornerstone of our sales and marketing strategy. We have widely promoted interoperable products as offering benefits such as lower life-cycle costs and improved flexibility to owners and users of control networks. However, OEMs that manufacture and market closed systems may not accept, promote or employ interoperable products, since doing so may expose their businesses to increased competition. In addition, OEMs might not, in fact, successfully develop interoperable products, or their customers might not accept their interoperable products. If OEMs fail to develop interoperable products, or our markets do not accept interoperable products, our revenues and operating results will suffer.

Our executive officers and technical personnel are critical to our business, and if we lose or fail to attract key personnel, we may not be able to successfully operate our business.

Our performance depends substantially on the performance of our executive officers and key employees. Due to the specialized technical nature of our business, we are particularly dependent on our Chief Executive Officer, our Chief Operating Officer, and our technical personnel. Our future success will depend on our ability to attract, integrate, motivate and retain qualified technical, sales, operations and managerial personnel. Competition for qualified personnel in our business areas is intense, and we may not be able to continue to attract and retain qualified executive officers and key personnel necessary to enable our business to succeed. Our product development and marketing functions are largely based in Silicon Valley, which is typically a highly competitive marketplace. It may be particularly difficult to recruit, relocate and retain qualified personnel in this geographic area. Moreover, the cost of living, including the cost of housing, in the Silicon Valley is known to be high. Since we are prohibited from making loans to executive officers under recent legislation, we will not be able to assist potential key personnel to acquire housing or to alleviate other costs that might be associated with joining our company. In addition, if we lose the services of any of our key personnel and are not able to find replacements in a timely manner, our business could be disrupted, other key personnel may decide to leave, and we may incur increased operating expenses in finding and compensating their replacements.

The market for our products is new and rapidly evolving. If we are not able to develop or enhance products to respond to changing market conditions, our revenues will suffer.

Customer requirements for control network products can change as a result of innovations or changes within the building, industrial, transportation, utility/home and other industries. For example, new or different standards within industry segments may be adopted, giving rise to new customer requirements. These customer requirements may or may not be compatible with our current or future product offerings. Our future success depends in large part on our ability to continually enhance our existing product offerings, lower the market price for our products, and develop new products that maintain technological competitiveness. We may not be successful in modifying our products and services to address these requirements and standards. For example, certain of our competitors may develop competing technologies based on Internet Protocols (IP) that may have advantages over our products in remote connection. If we are not able to develop or enhance our products to respond to these changing market conditions, our revenues and results of operations will suffer.

In addition, due to the nature of development efforts in general, we often experience delays in the introduction of new or improved products beyond our original projected shipping date for such products. Historically, when these delays have occurred, we experienced an increase in our development costs and a delay in our ability to generate revenues from these new products. We believe that similar new product introduction delays in the future could also increase our costs and delay our revenues.

Defects in or misuse of our products may delay our ability to generate revenues and may increase our liabilities and expenses.

Our products may contain undetected errors or failures when first introduced or as new versions are released. In addition, our customers may improperly install or implement our products. Furthermore, because of the low cost and interoperable nature of our products, LonWorks technology could be used in a manner for which it was not intended.

If errors or failures are found in our products, we may not be able to successfully correct them in a timely manner, or at all. Such errors or failures could delay our product shipments and divert our engineering resources while we attempt to correct them. As a result, errors or failures in our products, or the improper installation or implementation of our products by third parties, could harm our reputation and operating results.

To address these issues, the agreements we maintain with our customers typically contain provisions intended to limit our exposure to potential errors and omissions claims as well as any liabilities arising from them. In certain very limited instances, these agreements require that we be named as an additional insured on our customer's insurance policies. However, our customer contracts and additional insured coverage may not effectively protect us against the liabilities and expenses associated with errors or failures attributable to our products.

To help reduce our exposure to these types of claims, we currently maintain errors and omissions insurance. However, it is possible that such insurance may not be available in the future or, if available, may be insufficient in amount to cover any particular claim. During 2000, the total limit for claims under these policies was $17.0 million. Since then, we have reduced the total limit for errors and omissions claims to $11.0 million because we believed the premiums our insurers requested were excessive. We believe that insurance premiums for errors and omissions coverage will continue to increase for the foreseeable future, which could result in increased costs or reduced limits. Consequently, if we elect to reduce our coverage, we may face increased exposure to these types of claims. If liability for a claim exceeds our policy limits, our operating results and our financial position would be negatively affected.

The trading price of our stock has been volatile, and may fluctuate due to factors beyond our control.

The trading price of our common stock is subject to significant fluctuations in response to numerous factors, including:

- investors may be concerned about the success of our project with Enel, or our ability to develop new customers for utility applications;
- competitors may announce new products or technologies;
- our quarterly operating results may vary widely;
- we or our customers may announce technological innovations or new products;
- securities analysts may change their estimates of our financial results; and
- significant stockholders may sell some or all of their holdings of our stock. For example, Enel presently owns approximately 7.5% of our outstanding common stock. Enel will generally be free to sell our common stock upon the earlier of September 11, 2003 or 30 days following the termination of our R&D agreement with Enel.

In addition, the market price of securities of technology companies, especially those in rapidly evolving industries such as ours, has been very volatile in the past. This volatility has often been unrelated or disproportionate to the operating performance of particular companies. In addition, in the future, our operating results may fall below analysts' expectations, which could adversely affect the market price of our stock.

In the future, we may be the target of securities class action lawsuits or other litigation, which could be costly and time consuming to defend.

In the past, following a period of volatility in the market price of a company's stock, securities class action lawsuits have often been instituted against such companies. In the future, we may become the target of similar litigation. If such a lawsuit were brought against us, regardless of its outcome, we would incur substantial costs and our management resources would be diverted in defending such litigation.

Voluntary standards that are established in our markets could limit our ability to sell our products and reduce our revenues.

Standards bodies, which are formal and informal associations that attempt to set voluntary, non-governmental product standards, are influential in many of our target markets. Some of our competitors have attempted to use voluntary standards to reduce the market opportunity for our products, or to increase the market opportunity for their own products, by lobbying for the adoption of voluntary standards that would exclude or limit the use of products that incorporate our technology. We participate in many voluntary standards organizations around the world in order to both help prevent the adoption of exclusionary standards and to promote voluntary standards for our products. However, we do not have the resources to participate in all voluntary standards processes that may affect our markets. The adoption of voluntary standards that are incompatible with our products or technology could limit the market opportunity for our products.

As a result of our lengthy sales cycle, we have limited ability to forecast the amount and timing of specific sales. If we fail to complete or are delayed in completing transactions, our revenues could vary significantly from period to period.

The sales cycle between initial customer contact and execution of a contract or license agreement with a customer can vary widely. For example, OEMs typically conduct extensive and lengthy product evaluations before making initial purchases of our products. They may further delay subsequent purchases of our products due to the OEMs' own prolonged product development and product introduction periods. Delays in our sales cycle can also result from, among other things:

- changes in our customers' budgets;
- changes in the priority our customers assign to control network development;
- the time it takes for us to educate our customers about the potential applications of and cost savings associated with our products; and
- the deployment schedule for projects undertaken by systems integrators.

We generally have little or no control over these factors, which may cause a potential customer to favor a competitor's products, or to delay or forgo purchases altogether.

We have limited ability to protect our intellectual property rights.

Our success depends significantly upon our intellectual property rights. We rely on a combination of patent, copyright, trademark and trade secret laws, non-disclosure agreements and other contractual provisions to establish, maintain and protect these intellectual property rights, all of which afford only limited protection. We have 87 issued U.S. patents, 9 pending U.S. patent applications, and various foreign counterparts. It is possible that patents will not issue from these pending applications or from any future applications or that, if issued, any claims allowed will not be sufficiently broad to protect our technology. If any of our patents fail to protect our technology, our competitors may find it easier to offer equivalent or superior technology. We have registered or applied for registration for certain trademarks, and will continue to evaluate the registration of additional trademarks as appropriate. If we fail to properly register or maintain our trademarks or to otherwise take all necessary steps to protect our trademarks, the value associated with the trademarks may diminish. In addition, if we fail to take all necessary steps to protect our trade secrets or other intellectual property rights, we may not be able to compete as effectively in our markets.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or services or to obtain and use information that we regard as proprietary. Any of the patents, trademarks, copyrights or intellectual property rights that have been or may be issued or granted to us could be challenged, invalidated or circumvented, and any of the rights granted may not provide protection for our proprietary rights. In addition, we cannot assure you that we have taken or will take all necessary steps to protect our intellectual property rights. Third parties may also independently develop similar technology without breach of our trade secrets or other proprietary rights. We have licensed in the past and may license in the future our key technologies to third parties. In addition, the laws of some foreign countries, including several in which we operate or sell our products, do not protect proprietary rights to as great an extent as do the laws of the United States. For example, certain of our products are licensed under shrink-wrap license agreements that are not signed by licensees and therefore may not be binding under the laws of certain jurisdictions.

From time to time, litigation may be necessary to defend and enforce our proprietary rights. As a result of this litigation, we could incur substantial costs and divert management resources, which could harm our business, regardless of the final outcome. Despite our efforts to safeguard and maintain our proprietary rights both in the United States and abroad, we may be unsuccessful in doing so. Also, the steps that we take to safeguard and maintain our proprietary rights may be inadequate to deter third parties from infringing, misusing, misappropriating, or independently developing our technology or intellectual property rights; or to prevent an unauthorized third party from copying or otherwise obtaining and using our products or technology.

Regulatory actions could limit our ability to market and sell our products.

Many of our products and the industries in which they are used are subject to U.S. and foreign regulation. Government regulatory action could greatly reduce the market for our products. For example, the power line medium, which is the communications medium used by some of our products, is subject to special regulations in North America, Europe and Japan. These regulations limit the ability of companies in general to use power lines as a communication medium. In addition, some of our competitors have attempted to use regulatory actions to reduce the market opportunity for our products or to increase the market opportunity for their own products. For example, in the late 1990's, CEMA, a trade association that developed a competing home automation protocol, was successful in persuading the FCC to mandate use of CEMA's protocol in analog television and set-top box applications. We were a petitioner in litigation arising from a related FCC proceeding concerning commercial availability of these "navigation devices." Although these specific FCC and judicial proceedings are not a significant threat to our digital and Internet-based products, changes in existing regulations or the issuance of new regulations in the future could adversely affect the market for our products or require us to expend significant management, technical and financial resources to make our products compliant with the new rules.

We face operational and financial risks associated with international operations.

Our international sales and marketing operations are located in nine countries around the world. Revenues from international sales, which include both export sales and sales by international subsidiaries, accounted for about 88.2% of our total net revenues in 2002, 78.1% of our total net revenues in 2001, and 66.4% of our total net revenues in 2000. We expect that international sales will continue to constitute a significant portion of total revenues.

Our operations and the market price of our products may be directly affected by economic and political conditions in the countries where we do business. In addition, we may not be able to maintain or increase the international demand for our products. Additional risks inherent in our international business activities generally include the following:

- currency fluctuations;
- unexpected changes in regulatory requirements, tariffs and other trade barriers;
- costs of localizing products for foreign countries and lack of acceptance of non-local products in foreign countries;
- longer accounts receivable payment cycles;
- difficulties in managing international operations;
- labor actions generally affecting individual countries, regions, or any of our customers which could result in reduced demand for our products;
- potentially adverse tax consequences, including restrictions on repatriation of earnings; and
- the burdens of complying with a wide variety of foreign laws.

Differing vacation and holiday patterns in other countries, particularly in Europe, may also affect the amount of business that we transact in other countries in any given quarter, the timing of our revenues, and our ability to forecast projected operating results for such quarter.

Fluctuations in the value of currencies in which we conduct our business relative to the U.S. dollar could cause currency translation adjustments. The portion of our revenues conducted in currencies other than the U.S. dollar, principally the Japanese yen, was about 4.8% in 2002, 5.9% in 2001, and 12.1% in 2000.

The use of the Euro as the standard currency in participating European countries may also impact our ability to transact sales in U.S. dollars. We have agreed with EBV, our European distributor, that upon notice from EBV, we will sell our products to EBV in Euros rather than U.S. dollars. We do not know when or if EBV will give such notice. If fewer of our sales in Europe are transacted in U.S. dollars, we may experience an increase in currency translation adjustments, particularly as a result of general economic conditions in Europe as a whole. We do not currently engage in currency hedging transactions or otherwise cover our foreign currency exposure.

Our existing stockholders control a significant percentage of our stock, which will limit other stockholders' ability to influence corporate matters.

As of February 28, 2003, our directors and executive officers, together with certain entities affiliated with them (including, for this purpose, Enel, which has the right to nominate a director to our Board of Directors), beneficially owned 35.6% of our outstanding stock.

Under the stock purchase agreement with Enel, which transaction was completed September 11, 2000, Enel purchased 3.0 million newly issued shares of our common stock and was granted the right to nominate a director to our Board of Directors. As a condition to the closing of the stock purchase agreement, our directors and our chief financial officer agreed to enter into a voting agreement with Enel in which each of them agreed to vote the shares of our company's common stock that they beneficially owned or controlled in favor of Enel's nominee to our Board of Directors. In addition, under the terms of the stock purchase agreement, Enel has agreed to (i) vote (and cause any of its affiliates that own shares of our common stock to vote) all of its shares in favor of the slate of director nominees recommended by the Board of Directors, and (ii) vote (and endeavor to cause any of its affiliates that own shares of our common stock to vote) a number of shares equal to at least that percentage of shares voted by all other stockholders for or against any specified matter, as recommended by the Board of Directors. The specified matters are the election of accountants, the approval of company option plans, and any proposal by any of our stockholders (unless the proposal could be prejudicial to Enel or the required voting would interfere with Enel's fiduciary duties to its own shareholders).

As a result, our directors and executive officers, together with certain entities affiliated with them, may be able to control substantially all matters requiring approval by our stockholders, including the election of all directors and approval of certain other corporate matters.

Potential conflicts of interest could limit our ability to act on opportunities that are adverse to a significant stockholder or its affiliates.

From time to time, we may enter into a material contract with a person or company that owns a significant amount of our company's stock. As circumstances change, we may develop conflicting priorities or other conflicts of interest with the significant stockholder with regard to the contract, or the significant stockholder may exert or attempt to exert a significant degree of influence over our management and affairs. The significant stockholder might exert or attempt to exert this influence in its capacity as a significant stockholder or, if the significant stockholder has a representative on our board of directors, through that board member.

For example, we have entered into the Contatore Elettronico project with an affiliate of Enel. Enel currently owns 3.0 million shares of our common stock, representing approximately 7.5% of our outstanding common stock. Enel also has the right to nominate a member of our board of directors as long as Enel owns at least 2.0 million shares of our common stock. As a consequence of the expiration of his mandate as Enel's Chief Executive Officer, Mr. Francesco Tatò resigned as a board member in all of Enel's subsidiaries and affiliates, including Echelon. Mr. Tatò served on our board of directors as a representative of Enel from September 2000 until June 2002. Enel has reserved its right to nominate a new member of our board of directors, who must be approved by us, to fill the vacancy created by the resignation of Enel's former board representative to our board of directors. During the term of service of Enel's former board representative from September 2000 to June 2002, Enel's representative on our board abstained from resolutions on any matter relating to Enel. A member of our board of directors who is also an officer of or is otherwise affiliated with Enel may decline to take action in a manner that might be favorable to us but adverse to Enel. Conflicts that could arise might concern the Contatore Elettronico project with Enel and other matters where Enel's interest may not always coincide with our interests or the interests of our other stockholders. Any of those conflicts could affect our ability to complete the Contatore Elettronico project on a timely basis, could increase our expenses or reduce our profits in connection with the project, could affect our ability to obtain approval for or complete other projects or plans that are in conflict with Enel's goals, and could otherwise significantly and adversely affect our financial condition and results of operations.

Natural disasters or power outages could disrupt our business.

We must protect our business and our network infrastructure against damage from earthquake, flood, hurricane and similar events, as well as from power outages. Many of our operations are subject to these risks, particularly our operations located in California. We have already experienced temporary power losses in our California facilities due to power shortages that have disrupted our operations, and we may in the future experience additional power losses that could disrupt our operations. While the impact to our business and operating results has not been material, we cannot assure you that power losses will not adversely affect our business in the future, or that the cost of acquiring sufficient power to run our business will not increase significantly. Similarly, a natural disaster or other unanticipated problem could also adversely affect our business by, among other things, harming our primary data center or other internal operations, limiting our ability to communicate with our customers, and limiting our ability to sell our products.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk. Our exposure to market risk for changes in interest rates relates primarily to our short-term investments. Our corporate investment policy requires that we invest only in high-credit quality issuances, that we restrict the amount of credit exposure to any one issuer, that we require instruments to have maturities of two years or less, and that the instruments have an active secondary or resale market to ensure portfolio liquidity.

The table below presents principal amounts and related weighted average interest rates for our investment portfolio at December 31, 2002. The average maturity of our short-term investments is six months. (in thousands, except average interest rates)

	Carrying Amount	Average Interest Rate
Short-term Investments:		
U.S. corporate securities	$65,125	2.84%
U.S. government securities	34,423	2.37%
Total short-term investments	$99,548	2.67%

Foreign Currency Exchange Risk. We transact business in various foreign countries. Our primary foreign currency cash flows are in Japan and Western Europe. Currently, we do not employ a foreign currency hedge program using foreign currency exchange contracts as the foreign currency transactions and risks to date have not been significant. We have agreed with EBV, our European distributor, that upon notice from EBV, we will sell our products to EBV in Euros rather than in U.S. dollars. We do not know when, or if, EBV will give such notice.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Financial Statements and Supplementary Data required by this item are set forth in Item 6 and at the pages indicated in Item 15(a).

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

We refer you to our current report on Form 8-K dated as of March 20, 2002, which disclosed our dismissal of Arthur Andersen LLP as our independent accountants and the engagement of KPMG LLP to perform the annual audit of our financial statements for the fiscal year ending December 31, 2002. In connection with our change in accountants, there was no disagreement with the former accountant on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure. The text of our current report on Form 8-K that we filed on March 20, 2002 is as follows:

"Item 4. Change in Registrant's Certifying Accountant.

(a) Previous independent accountants.

(i) Arthur Andersen LLP is currently the principal accountants for Echelon Corporation (the "Registrant"). On March 20, 2002, we determined that Arthur Andersen LLP's appointment as principal accountants would cease following the issuance of their report on their audit of the Registrant's financial statements for the year ended December 31, 2001. On March 21, 2002, KPMG LLP was engaged, subject to the completion of their normal due diligence procedures, to serve as the Registrant's principal accountants effective for the fiscal year commencing January 1, 2002. The audit committee of our board of directors participated in and approved the decision to change principal accountants.

(ii) The reports of Arthur Andersen LLP on the Company's financial statements for the fiscal years ended December 31, 2001 and 2000 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles.

(iii) In connection with its audits for the two most recent fiscal years and through March 20, 2002, there have been no disagreements with Arthur Andersen LLP on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements if not resolved to the satisfaction of Arthur Andersen LLP would have caused them to make reference thereto in their report on financial statements for such years.

(iv) During the two most recent fiscal years and through March 20, 2002, there have been no reportable events as defined in Regulation S-K, Item 304(a)(1)(v).

(v) Arthur Andersen LLP has furnished to the Company a letter addressed to the Securities and Exchange Commission stating whether or not it agrees with the above statements. A copy of such letter, dated March 26, 2002, is filed as exhibit 16.1 to this Form 8-K.

(b) New independent accountants.

(i) Effective March 21, 2002, we retained KPMG LLP, subject to the completion of their normal due diligence procedures, to perform the annual audit of our financial statements for the fiscal year ending December 31, 2002. During the two most recent fiscal years and through March 21, 2002, we have not consulted with KPMG LLP regarding (i) either: the application of accounting principles to a specific transaction, either completed or proposed; or the type of audit opinion that might be rendered on our financial statements, and either a written report was provided to us or oral advice was provided that KPMG LLP concluded was an important factor we considered in reaching a decision as to the accounting, auditing or financial reporting issue; or (ii) any matter that was either the subject of a disagreement or reportable event with Arthur Andersen LLP as described in Regulation S-K, item 304(a)(2)."

PART III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

We refer you to the information regarding Directors appearing under the caption “Election of Directors” and “Other Information — Compliance with Section 16 (a) Beneficial Ownership Reporting Compliance” in our proxy statement to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2002, which information is incorporated herein by reference; and to the information under the heading “Executive Officers of the Registrant” in Part I hereof.

Item 11. EXECUTIVE COMPENSATION

We refer you to the information under the caption “Executive Compensation” in our proxy statement to be filed with the Securities Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2002, which we incorporate herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

We refer you to the information appearing under the caption “Share Ownership by Principal Stockholders and Management” in our proxy statement to be filed with the Securities Exchange Commission within 120 days after the end of the our fiscal year ended December 31, 2002, which we incorporate herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We refer you to the information appearing under the caption “Other Information — Certain Transactions” in our proxy statement to be filed with the Securities Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2002, which we incorporate herein by reference.

Item 14. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures and internal controls designed to ensure that information required to be disclosed in our filings under the Securities Exchange Act of 1934 is recorded, processed, and summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms. Our principal executive and financial officers have evaluated our disclosure controls and procedures pursuant to Rule 13a – 14 of the Securities Exchange Act within 90 days prior to the filing of this Annual Report on Form 10-K and have determined that such disclosure controls and procedures are effective to timely alert the public to material information relating to our company required to be disclosed in our filings with the Securities and Exchange Commission.

Subsequent to our evaluation, there were no significant changes in internal controls or other factors that could significantly affect our internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

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

1. Financial Statements

2. Financial Statement Schedules

All other schedules have been omitted because they are not applicable or the required information is included in the Consolidated Financial Statements or the Notes thereto.

3. Exhibits

Item 601 of Regulation S-K requires the following exhibits listed below. Each management contract or compensatory plan or arrangement required to be filed as an exhibit to this Form 10-K has been identified.

Exhibit No.	Description of Document
3.2*	Amended and Restated Certificate of Incorporation of Registrant.
3.3	Amended and Restated Bylaws of Registrant.
4.1*	Form of Registrant's Common Stock Certificate.
4.2*	Second Amended and Restated Modification Agreement dated May 15, 1997.
10.1*	Form of Indemnification Agreement entered into by Registrant with each of its directors and executive officers.
10.2*†	1997 Stock Plan and forms of related agreements.
10.3*†	1988 Stock Option Plan and forms of related agreements.
10.4*	Second Amended and Restated Modification Agreement dated May 15, 1997 (included in Exhibit 4.2).
10.5*	Form of International Distributor Agreement.
10.6*	Form of OEM License Agreement.
10.7*	Form of Software License Agreement.
10.8*	International Distributor Agreement between the Company and EBV Elektronik GmbH as of December 1, 1997.
10.9*†	1998 Director Option Plan.
21.1*	Subsidiaries of the Registrant.
23.1	Consent of KPMG LLP.
24.1	Power of Attorney (see signature page).
99.1	Certification by the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.2	Certification by the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Previously filed.

† Indicates management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 14(c) of Form 10-K.

(b) Reports on Form 8-K

No reports on Form 8-K were filed during the quarter ended December 31, 2002.

INDEPENDENT AUDITOR'S REPORT

The Board of Directors and Stockholders
Echelon Corporation:

We have audited the accompanying consolidated balance sheet of Echelon Corporation and subsidiaries (the Company) as of December 31, 2002, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for the year then ended. In connection with our audit of the consolidated financial statements, we have also audited the financial statement schedule as listed in Item 15(a). These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audit. The consolidated financial statements and financial statement schedule of Echelon Corporation and subsidiaries as of December 31, 2001 and for the two years then ended as listed in Item 15(a) were audited by other auditors who have ceased operations. Those auditors expressed an unqualified opinion on those consolidated financial statements and financial statement schedule, before the revision described in Note 4 to the financial statements, in their report dated January 15, 2002.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 2002 consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Echelon Corporation and subsidiaries as of December 31, 2002, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed above, the 2001 and 2000 financial statements of Echelon Corporation as listed in Item 15(a) were audited by other auditors who have ceased operations. As described in Note 4, these financial statements have been revised to include the transitional disclosures required by Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets*, which was adopted by the Company as of January 1, 2002. In our opinion, the disclosures for 2001 in Note 4 are appropriate. However, we were not engaged to audit, review, or apply any procedures to the 2001 financial statements of Echelon Corporation other than with respect to such disclosures and, accordingly, we do not express an opinion or any other form of assurance on the 2001 financial statements taken as a whole.

/s/ KPMG LLP

Mountain View, California
January 17, 2003

To Echelon Corporation:

We have audited the accompanying consolidated balance sheets of Echelon Corporation (a Delaware corporation) and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2001. These financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Echelon Corporation and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed under Item 14(a) is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

/s/ ARTHUR ANDERSEN LLP

San Jose, California
January 15, 2002

The above report of Arthur Andersen LLP ("Andersen") is a copy of the report previously issued by Andersen on January 15, 2002. The report of Andersen is included in this annual report on Form 10-K pursuant to rule 2-02(E) of Regulation S-X. After reasonable efforts the company has not been able to obtain a reissued report from Andersen. Andersen has not consented to the inclusion of its report in this annual report on Form 10-K. Because Andersen has not consented to the inclusion of its report in this annual report, it may be difficult to seek remedies against Andersen and the ability to seek relief against Andersen may be impaired.

ECHELON CORPORATION

CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	As of December 31, 2002	As of December 31, 2001
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 34,941	$ 23,232
Short-term investments	99,548	88,421
Accounts receivable, net of allowances of $1,390 in 2002 and $1,491 in 2001	22,930	29,113
Inventories	7,991	10,316
Other current assets	3,217	11,556
Total current assets	168,627	162,638
Property and Equipment:		
Computer and other equipment	13,716	12,036
Furniture and fixtures	2,604	2,426
Leasehold improvements	12,669	10,840
	28,989	25,302
Less: Accumulated depreciation and amortization	(12,312)	(8,822)
Net property and equipment	16,677	16,480
Goodwill	7,758	1,637
Restricted investments	10,526	—
Other long-term assets	3,904	4,899
	$207,492	$185,654
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$ 5,993	$ 7,409
Accrued liabilities	3,773	2,426
Deferred revenues	2,541	1,055
Total current liabilities	12,307	10,890
Long-Term Liabilities:		
Deferred rent, net of current portion	167	47
Total long-term liabilities	167	47
Commitments and Contingencies (Note 5)		
Stockholders' Equity:		
Convertible preferred stock, $0.01 par value:		
Authorized — 5,000,000 shares; none outstanding		
Common stock, $0.01 par value:		
Authorized — 100,000,000 shares		
Outstanding — 39,725,550 shares in 2002 and 38,753,360 shares in 2001	400	390
Additional paid-in capital	268,883	265,787
Treasury stock	(3,191)	(3,191)
Deferred compensation	—	(31)
Accumulated other comprehensive income	445	38
Accumulated deficit	(71,519)	(88,276)
Total stockholders' equity	195,018	174,717
	$207,492	$185,654

See accompanying notes to the consolidated financial statements.

ECHELON CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)

	For the Year Ended December 31,		
	2002	2001	2000
Revenues:			
Product	$121,454	$74,777	$47,261
Service	1,380	1,812	2,038
Total revenues	122,834	76,589	49,299
Cost of Revenues:			
Cost of product	57,059	34,842	18,225
Cost of service	2,880	2,347	2,017
Total cost of revenues	59,939	37,189	20,242
Gross profit	62,895	39,400	29,057
Operating Expenses:			
Product development	21,456	17,028	11,159
Sales and marketing	17,291	15,787	15,949
General and administrative	9,711	6,942	5,787
Non-recurring benefit	—	—	(48)
Total operating expenses	48,458	39,757	32,847
Income/(loss) from operations	14,437	(357)	(3,790)
Interest and other income, net	3,777	6,655	4,019
Income before provision for income taxes	18,214	6,298	229
Provision for Income Taxes	1,457	252	145
Net income	$ 16,757	$ 6,046	$ 84
Income per share:			
Basic	$ 0.42	$ 0.16	$ 0.00
Diluted	$ 0.41	$ 0.15	$ 0.00
Shares used in per share calculation:			
Basic	39,468	38,443	35,222
Diluted	40,726	41,141	39,734

See accompanying notes to the consolidated financial statements.

ECHELON CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock		Treasury Stock		Additional Paid-In Capital	Deferred Compen-sation	Accumulated Other Comprehen-sive Income/(Loss)	Accumu-lated Deficit	Total
	Shares	Amount	Shares	Amount					
Balance at December 31, 1999	33,240	$332	—	—	$127,613	$(399)	$(202)	$(94,406)	$ 32,938
Exercise of stock options and warrants, net of repurchases	1,810	18	—	—	4,929	—	—	—	4,947
Issuance of common stock in connection with sale of shares to Enel, net issuance costs of $191	3,000	30	—	—	130,706	—	—	—	130,736
Amortization of deferred compensation	—	—	—	—	—	184	—	—	184
Foreign currency translation adjustment	—	—	—	—	—	—	(161)	—	(161)
Unrealized holding gain on available-for-sale securities	—	—	—	—	—	—	33	—	33
Net income	—	—	—	—	—	—	—	84	84
Balance at December 31, 2000	38,050	380	—	—	263,248	(215)	(330)	(94,322)	168,761
Exercise of stock options and warrants, net of repurchases	968	10	—	—	2,539	—	—	—	2,549
Repurchase of stock	—	—	(265)	$(3,191)	—	—	—	—	(3,191)
Amortization of deferred compensation	—	—	—	—	—	184	—	—	184
Foreign currency translation adjustment	—	—	—	—	—	—	(327)	—	(327)
Unrealized holding gain on available-for-sale securities	—	—	—	—	—	—	695	—	695
Net income	—	—	—	—	—	—	—	6,046	6,046
Balance at December 31, 2001	39,018	390	(265)	(3,191)	265,787	(31)	38	(88,276)	174,717
Exercise of stock options and warrants, net of repurchases	973	10	—	—	3,096	—	—	—	3,106
Amortization of deferred compensation	—	—	—	—	—	31	—	—	31
Foreign currency translation adjustment	—	—	—	—	—	—	584	—	584
Unrealized holding gain on available-for-sale securities	—	—	—	—	—	—	(177)	—	(177)
Net income	—	—	—	—	—	—	—	16,757	16,757
Balance at December 31, 2002	39,991	$400	(265)	$(3,191)	$268,883	$ —	$ 445	$(71,519)	$195,018

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)
(in thousands)

	For the Year Ended December 31,		
	2002	2001	2000
Net income	$16,757	$6,046	$ 84
Other comprehensive income/(loss), net of tax:			
Foreign currency translation adjustment, net of tax	584	(327)	(161)
Unrealized holding gain/(loss) on available-for-sale securities, net of tax	(177)	695	33
Comprehensive income/(loss)	$17,164	$6,414	$ (44)

See accompanying notes to the consolidated financial statements.

ECHELON CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	For the Year Ended December 31,		
	2002	2001	2000
Cash Flows from Operating Activities:			
Net income	$ 16,757	$ 6,046	$ 84
Adjustments to reconcile net income to net cash used in operating activities:			
Depreciation and amortization	4,062	2,322	1,239
In-process research and development	400	—	—
Provision for doubtful accounts	55	210	25
Deferred compensation expense	31	184	184
Loss on disposal of fixed assets	7	74	40
Change in operating assets and liabilities:			
Accounts receivable	6,161	(19,775)	(2,270)
Inventories	2,325	(4,571)	(2,586)
Other current assets	8,354	(6,353)	(2,906)
Accounts payable	(2,183)	3,209	1,614
Accrued liabilities	1,194	820	(934)
Deferred revenues	1,445	(51)	(541)
Deferred rent	120	44	3
Net cash provided by (used in) operating activities	38,728	(17,841)	(6,048)
Cash Flows from Investing Activities:			
Purchase of available-for-sale short-term investments	(86,647)	(79,454)	(32,348)
Proceeds from sales and maturities of available-for-sale short-term investments	75,519	24,162	14,188
Unrealized gains (losses) on securities	(177)	695	33
Purchase of BeAtHome.com, Inc.	(5,811)	—	—
Purchase of restricted investments	(10,526)	—	—
Changes in other long-term assets	358	(5,769)	(1,302)
Capital expenditures	(3,425)	(15,256)	(1,716)
Net cash used in investing activities	(30,709)	(75,622)	(21,145)
Cash Flows from Financing Activities:			
Proceeds from issuance of common stock, net of offering costs	3,106	2,549	135,683
Repurchase of common stock	—	(3,191)	—
Net cash provided by (used in) financing activities	3,106	(642)	135,683
Effect of Exchange Rates on Cash	584	(327)	(162)
Net Increase (Decrease) in Cash and Cash Equivalents	11,709	(94,432)	108,328
Cash and Cash Equivalents:			
Beginning of year	23,232	117,664	9,336
End of year	$ 34,941	$ 23,232	$117,664
Supplemental Disclosures of Cash Flow Information:			
Cash paid for income taxes	$ 304	$ 130	$ 145

See accompanying notes to the consolidated financial statements.

1. Organization of the Company:

Echelon Corporation (the "Company") was incorporated in California in February 1988 and was later reincorporated in Delaware in January 1989. The Company develops, markets and supports a wide range of hardware and software products and services that enable OEMs and systems integrators to design and implement open, interoperable, distributed control networks. The Company's products are based on LonWorks networking technology, an open standard for interoperable networked control developed by the Company. In a LonWorks control network, intelligent control devices, called nodes, communicate using the Company's LonWorks protocol. The Company sells its products and services around the world to the building, industrial, transportation, utility/home and other automation markets.

The Company is subject to certain risks and challenges including, among others: reliance on significant customers; fluctuation in operating results; dependence on key manufacturers and suppliers; competition; undetermined market acceptance of its products and interoperability in general; dependence on OEMs and distribution channels; dependence on key personnel; new products and rapid technological change; changes in the markets in which it operates; infringement of intellectual property rights of others; risks of product defects or misuse; history of losses; volatility of stock price; voluntary standards; lengthy sales cycle; limited protection of intellectual property rights; regulatory actions; international operations and currency fluctuations; control by existing stockholders; conflicts of interest with significant stockholders; and susceptibility to power outages.

2. Summary of Significant Accounting Policies and Practices:

Principles of Consolidation

The Company's consolidated financial statements reflect operations of the Company and its wholly owned subsidiaries. All significant intercompany transactions and balances have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain reclassifications have been made to the prior year amounts to conform with the fiscal year 2002 presentation.

Revenue Recognition and Product Warranty

The Company's revenues are derived from the sale and license of its products and to a lesser extent, from fees associated with training, technical support, and custom software design services offered to its customers. Product revenues consist of revenues from hardware sales and software licensing arrangements. Revenues from software licensing arrangements accounted for approximately 3.3% of total revenues in 2002, 6.6% of total revenues in 2001, and 9.8% of total revenues in 2000. Service revenues consist of product support (including software post-contract support services), training, and custom software development services.

The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, collectibility is probable and there are no post-delivery obligations. For hardware sales, including sales to distributors and third party manufacturers, these criteria are generally met at the time of shipment to the customer. For software licenses, these criteria are generally met upon shipment to the final end-user. Service revenue is recognized as the training services are performed, or ratably over the term of the support period. In the case of custom software development services, revenue is recognized when the customer accepts the software.

In accordance with Statement of Position (SOP) 97-2, "Software Revenue Recognition," revenue earned on software arrangements involving multiple elements is allocated to each element based upon the relative fair values of the elements. The Company uses the residual method to recognize revenue when a license agreement includes one or more elements to be delivered at a future date. In these instances, the amount of revenue deferred at the time of sale is based on vendor specific objective evidence ("VSOE") of the fair value for each undelivered element. If VSOE of fair value does not exist for each undelivered element, all revenue attributable to the multi-element arrangement is deferred until sufficient VSOE of fair value exists for each undelivered element or all elements have been delivered.

The Company currently sells a limited number of products that are considered multiple element arrangements under SOP 97-2. Revenue for the software license element is recognized at the time of delivery of the application product to the end-user. The only undelivered element at the time of sale consists of post-contract customer support ("PCS"). The VSOE for this PCS is based on prices paid by the Company's customers for stand-alone purchases of these PCS packages. Revenue for the PCS element is deferred and recognized ratably over the PCS service period. The costs of providing these PCS services are expensed when incurred.

The Company typically sells its products and services to customers with net 30 day payment terms. In certain instances, payment terms may extend to net 90 days. For a customer whose credit worthiness does not meet the Company's minimum criteria, the Company may require partial or full payment prior to shipment. Alternatively, customers may be required to provide the Company with an irrevocable letter of credit prior to shipment. Customer payments for products delivered or services performed are not tied to milestones.

With the exception of sales to EBV, the Company's sole distributor of products in Europe, the Company's customers are not entitled to return products for a refund. In rare instances, the Company has entered into agreements that provide the customer with a right to evaluate a delivered product for a stated period of time prior to "acceptance." In these cases, revenue is deferred until such time as the acceptance criteria, as defined in the agreement, have been met. Revenues generated from these types of arrangements have been immaterial to date. For all other transactions, the Company's standard acceptance terms allow customers to inspect products when received. If, through an incoming inspection test, the customer determines the products do not meet stated design specifications, the Company permits the customer to return the product for repair or replacement under the Company's standard warranty provisions. Estimated reserves for warranty costs are recorded at the time of shipment.

Under the terms of the Company's distributor agreement with EBV, EBV is entitled to return certain products deemed to be excess inventory by EBV. These return rights are generally limited to 5% of the products purchased during the prior six months. At such time as EBV submits a request to return product, they are required to submit an order for new product of equal or greater value. The agreement also provides for price protection. In the event the Company lowers its prices for products sold to EBV, EBV is entitled to recover, in the form of a sales credit, the net price reduction based on its on hand inventory of the price affected products. Sales credits issued for price protection purposes have been immaterial to date.

The Company also offers EBV, and certain other of its distributors, rebates and other sales incentives. During 2002, these rebates ranged from 1% to 5% of the value of products purchased. Other sales incentives are generally limited to one-time awards for design-in wins secured by the distributor. Qualification for these rebates and design-in awards are based upon certain objectives and criteria established by the Company. The Company accounts for the rights of return, price protection, rebates, and other sales incentives offered to its distributors in accordance with SFAS 48.

In June 2000, the Company entered into a Research and Development and Technological Cooperation Agreement (the "R&D Agreement") with Enel Distribuzione S.p.A., a subsidiary of Enel S.p.A. ("Enel"), an Italian utility company. Under this agreement, the Company and Enel agreed to cooperate in the development of Enel's meter management system, known as the "Contatore Elettronico," which, among other things, will replace existing stand-alone electricity meters with networked electricity meters throughout Enel's service territory in Italy. The R&D Agreement has a term of five years, but can be cancelled by either party for a material breach by the other party that remains uncured for a period of 30 days.

The Contatore Elettronico project includes solid-state electricity meters designed by a third party and Enel. The Company has entered into supply agreements with various third party contract manufacturers ("meter manufacturers") who manufacture the meters for Enel under contracts awarded by Enel through a public tender process. The meter manufacturers combine components purchased from the Company with other components to complete the manufacture of the meters for sale to Enel. The Company recognizes revenue associated with meter manufacturer component sales when the product is shipped to the meter manufacturer. The Company's supply obligations for each meter manufacturer expire on the earlier of June 2005 or at such time as the Company completes the delivery of components to that meter manufacturer for use under the meter manufacturer's existing contract with Enel.

The payment terms under the Company's supply agreements vary by meter manufacturer. The terms range from open account basis with net thirty-day payment terms to sixty days with supporting letters of credit. The meter manufacturers place orders for components based on their then current production schedules. The meter manufacturers are under no obligation to purchase components from the Company, and each meter manufacturer could discontinue placing orders with the Company for future purchases at any time.

The Company also sells a finished product, called a "concentrator product," directly to Enel. Enel's need for concentrator products depends on the successful manufacture of electricity meters by the meter manufacturers. The Company sells concentrator products to Enel under a "Letter of Order," an Italian business equivalent of a purchase order. The Company recognizes revenue for concentrator product sales when the products are shipped to Enel.

To date, there have been three Letters of Order for concentrator products. The term of these Letters of Order is based on the projected delivery of products noted in each Letter of Order. Deliveries have been completed for the first and second Letters of Order. Deliveries under the third Letter of Order are continuing and may continue through November 2004, although they can be cancelled by Enel at any time with six months advance notice. Reasons for cancellation would include cancellation of the Contatore Elettronico project or the failure of the concentrator product to perform as required in the Contatore Elettronico project. Under the third Letter of Order, Enel also has certain rights to reschedule shipments. In general, such rights require six months advance notice. The Letters of Order for the concentrator product have had various payment terms that generally equate to net ninety days.

Enel and another subsidiary of Enel's parent are developing Enel's data center software, which manages the deployed equipment in the Contatore Elettronico project. The Company is not responsible for this data center software. Additionally, Enel is the system integrator for the Contatore Elettronico project. Accordingly, the Company is not responsible for the integration or software management maintenance issues associated with the data center software.

For costs incurred under the R&D Agreement, there is no cost sharing arrangement among Enel, its contract manufacturers, and the Company. Each party is responsible for its own costs. Accordingly, the Company expenses R&D costs related to the Enel program as they are incurred.

During 1990, the Company entered into separate licensing agreements with Motorola, Inc. ("Motorola"), which expired in January 2002, and Toshiba Corporation ("Toshiba"), which expires in January 2010, unless renewed. In 1999, the Company signed a similar licensing agreement with Cypress Semiconductor, Inc. ("Cypress"), which expires in 2009, unless renewed. In January 2002, Motorola announced that it had discontinued its distribution of Neuron Chips. Motorola was a significant stockholder and was a related party to the Company due to its representation on the Company's Board of Directors during 1999 and part of 1998. The agreements provide, among other things, for the worldwide right to manufacture and distribute products subject to the licensed technology and require the Company to provide support and unspecified updates to the licensed technology over the terms of the agreements, including support relating to compatibility testing and qualification of updates to the licensed technology. The Toshiba and Motorola agreements also provided for nonrefundable advance royalty payments aggregating $6,750,000, which were received by the Company in 1990 and 1991. These payments were recognized as revenue ratably over the ten-year royalty period due to the ongoing obligation to provide support and unspecified updates to the licensed technology. As of December 31, 1999, the Company deferred $675,000 of royalty payments that were recognized in 2001. Product revenues for the years ended December 31, 2001 and 2000 each include $675,000 related to these advance royalty payments. Any additional royalties reported by Motorola, Toshiba, or Cypress are recognized as revenue upon receipt of such royalties by the Company.

Cash and Cash Equivalents

The Company considers bank deposits, money market investments and all debt and equity securities with an original maturity of three months or less to be cash and cash equivalents.

Short-Term Investments

The Company classifies its investments in marketable debt securities as available-for-sale in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Securities classified as available-for-sale are reported at fair market value with the related unrealized holding gains and losses, net of tax, being included in accumulated other comprehensive income (loss) in the accompanying consolidated statements of stockholders' equity.

As of December 31, 2002 and 2001, the Company's available-for-sale securities had contractual maturities of three to twenty-three months, and from three to twenty-four months, respectively, and an average maturity of six and eight months, respectively. The fair value of available-for-sale securities was determined based on quoted market prices at the reporting date for those instruments. The amortized cost basis, aggregate fair value and gross unrealized holding gains and losses by major security type were as follows (in thousands):

	December 31,					
	2002			2001		
	Amortized Cost	Aggregate Fair Value	Unrealized Holding Gains	Amortized Cost	Aggregate Fair Value	Unrealized Holding Gains/(Losses)
U.S. corporate securities:						
Commercial paper	$12,218	$12,223	$ 5	$ 5,793	$ 5,794	$ 1
Corporate notes and bonds	52,569	52,902	333	68,049	68,772	723
	64,787	65,125	338	73,842	74,566	724
U.S. government securities	34,230	34,423	193	13,871	13,855	(16)
Total investments in debt securities	$99,017	$99,548	$531	$87,713	$88,421	$708

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market and include material, labor and manufacturing overhead. When required, provisions are made to reduce excess and obsolete inventories to their estimated net realizable value. Inventories consist of the following (in thousands):

	December 31,	
	2002	2001
Purchased materials	$1,432	$ 4,473
Work-in-process	19	57
Finished goods	6,540	5,786
	$7,991	$10,316

Property and Equipment

Property and equipment are stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of two to five years for computer and other equipment and furniture and fixtures. Leasehold improvements are amortized over the shorter of the remaining lease term or the estimated useful life of the improvements using the straight-line method.

Impairment of Long-Lived Assets Including Goodwill and Other Intangible Assets

The Company reviews property, plant, and equipment and certain identifiable intangibles, excluding goodwill, for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability is measured by comparing the asset's carrying value to the future undiscounted cash flows the asset is expected to generate. If property, plant, and equipment and certain identifiable intangibles are considered to be impaired, the impairment to be recognized equals the amount by which the carrying value of the asset exceeds its fair market value. For the three years ended December 31, 2002, the Company has made no material adjustments to its long-lived assets.

In July 2001, the FASB issued SFAS No. 142 ("SFAS 142"), *"Goodwill and Other Intangible Assets."* The Company adopted SFAS 142 on January 1, 2002. SFAS 142 requires that goodwill and intangible assets with indefinite useful lives no longer be amortized, but instead be tested for impairment at least annually or sooner whenever events or changes in circumstances indicate that they may be impaired. Prior to the year ended December 31, 2002, goodwill was amortized using the straight-line method over its estimated useful life.

SFAS 142 also requires that intangible assets with definite lives be amortized over their estimated useful lives and reviewed for impairment in accordance with SFAS No. 144, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of." The Company is currently amortizing its acquired intangible assets with definite lives over period ranging from 2 to 4 years.

Restricted Investments

Restricted investments consist of money market funds. These investments are carried at fair value and are collateral for a $10.0 million line of credit issued to the Company by its primary bank. As of December 31, 2002, the Company's primary bank has issued, against the line of credit, two standby letters of credit totaling $8.0 million as security for real estate lease commitments discussed in Note 5 below. As of December 31, 2002, no amounts had been drawn against the line of credit or the letters of credit.

Because the Company's agreement with the lender prevents the Company from withdrawing these invested funds, they are considered restricted. The line of credit is maintained primarily for the purpose of providing standby letters of credit for specified obligations under the Company's headquarter facility lease agreements. The restricted investments are classified as long-term as the Company intends to maintain the bank line of credit for which they are collateral for greater than one year.

Software Development Costs

The Company capitalizes eligible computer software development costs upon the establishment of technological feasibility, which the Company has defined as completion of a working model. For the years ended December 31, 2002, 2001 and 2000, costs that were eligible for capitalization were insignificant and, thus, the Company has charged all software development costs to product development expense in the accompanying consolidated statements of operations.

Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31,	
	2002	**2001**
Accrued payroll and related costs	$1,929	$1,778
Accrued marketing costs	481	390
Other accrued liabilities	1,364	258
	$3,774	$2,426

Non-recurring Benefit

In the fourth quarter of 1999, the Company's Board of Directors approved a relocation plan to exit its previous Palo Alto, California leased facilities and relocate to a new leased facility in San Jose, California. During the first and second quarters of 2001, the Company moved from its Palo Alto location to a temporary headquarters facility in Sunnyvale, California, where it remained until the fourth quarter of 2001. In October 2001, the Company relocated to its new corporate headquarters in San Jose. As a result of vacating the Palo Alto facility, the Company recorded a charge of $549,000, which was expensed in 1999 and was paid over the remaining lease term through

June 30, 2000. In the second quarter of 2000, the Company recorded a reversal of the excess of the estimate over the actual expenditures for the non-recurring charge of $48,000.

Foreign Currency Translation

The functional currency of the Company's subsidiaries is the local currency. Accordingly, all assets and liabilities are translated into U.S. dollars at the current exchange rate as of the applicable balance sheet date. Revenues and expenses are translated at the average exchange rate prevailing during the period. Gains and losses resulting from the translation of the financial statements are included in accumulated other comprehensive income (loss) in the accompanying consolidated statements of stockholders' equity. Currently, the Company does not employ a foreign currency hedge program utilizing foreign currency exchange contracts as the foreign currency transactions and risks to date have not been significant.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of temporary cash investments and trade receivables. The Company has cash investment policies that limit the amount of credit exposure to any one financial institution and restrict placement of these investments to financial institutions evaluated as highly creditworthy. With the exception of amounts owed the Company on sales made to Enel and its contract manufacturers, concentrations of credit risk with respect to trade receivables are limited due to the Company's large number of customers and their dispersion across many different industries and geographies. With respect to these trade receivables, the Company performs ongoing credit evaluations of its customers' financial condition. Additionally, the Company establishes an allowance for doubtful accounts and sales return allowances based upon factors surrounding the credit risk of specific customers, historical trends and other available information. As of December 31, 2002 and 2001, about 76.8% and 75.0% of the total accounts receivable balance, respectively, were due from Enel and its contract manufacturers. As of December 31, 2002 and 2001, about 7.2% and 3.3% of the total accounts receivable balance, respectively, were due from EBV, the Company's sole distributor of products in Europe.

Computation of Basic and Diluted Net Income Per Share and Pro Forma Basic Net Loss Per Share

Basic net income per share is calculated by dividing net income by the weighted average shares of common stock outstanding during the period. Diluted net income per share is calculated by adjusting the weighted average number of outstanding shares assuming conversion of all potentially dilutive stock options and warrants under the treasury stock method.

The following is a reconciliation of the numerators and denominators of the basic and diluted net income per share computations for the years ended December 31, 2002 and 2001 (in thousands, except per share amounts):

	Year ended December 31,		
	2002	2001	2000
Net income (Numerator):			
Net income, basic & diluted	$16,757	$ 6,046	$ 84
Shares (Denominator):			
Weighted average common shares outstanding	39,482	38,500	35,426
Weighted average common shares outstanding subject to repurchase	(14)	(57)	(204)
Shares used in basic computation	39,468	38,443	35,222
Weighted average common shares outstanding subject to repurchase	14	57	204
Common shares issuable upon exercise of stock options (treasury stock method)	1,245	2,398	4,010
Common shares issuable upon exercise of warrants (treasury stock method)	—	250	305
Average unamortized deferred compensation	(1)	(7)	(7)
Shares used in diluted computation	40,726	41,141	39,734
Net income per share:			
Basic	$ 0.42	$ 0.16	$ 0.00
Diluted	$ 0.41	$ 0.15	$ 0.00

For the years ended December 31, 2002, December 31, 2001, and December 31, 2000, 4,533,479, 2,097,422, and 216,262 stock options, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares and therefore, the effect would be anti-dilutive.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Stock-Based Employee Compensation Plans

The Company accounts for its stock-based employee compensation plans under the recognition and measurement principles of APB Opinion No. 25, *Accounting for Stock issued to Employees*, and related Interpretations. With the exception of deferred compensation expense attributable to options granted during 1998, no stock-based employee compensation cost is reflected in net income, as all options granted under the plans had an exercise price equal to the market value of the underlying common stock on the date of grant. The following table illustrates the effect on net income and earnings per share if the Company had applied the fair value recognition provisions of FASB Statement No. 123, "Accounting for Stock-Based Compensation," to stock-based employee compensation.

	Year Ended December 31,		
	2002	2001	2000
Net income/(loss) as reported	$ 16,757	$ 6,046	$ 84
Add: Stock-based employee compensation expense included in reported net income, net of related tax effects	31	184	184
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(32,822)	(29,819)	(22,543)
Pro forma net income/(loss)	$(16,034)	($ 23,589)	($ 22,275)
Basic earnings/(loss) per share:			
As reported	$ 0.42	$ 0.16	$ 0.00
Pro forma	(0.41)	(0.61)	(0.63)
Diluted earnings/(loss) per share:			
As reported	0.41	0.15	0.00
Pro forma	(0.41)	(0.61)	(0.63)

Comprehensive Income

Comprehensive income for the Company consists of net income plus the effect of unrealized holding gains or losses on investments classified as available-for-sale and foreign currency translation adjustments. The accumulated balances for each component of the accumulated other comprehensive income, net of tax, are as follows (in thousands):

Recent Accounting Pronouncements

In April 2002, the FASB issued SFAS No. 145 ("SFAS 145"), *"Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections."* SFAS 145 updates, clarifies and simplifies existing accounting pronouncements including: rescinding SFAS 4, which required all gains and losses from extinguishments of debt to be aggregated and, if material, classified as an extraordinary item, net of the related income tax effect, and amending SFAS 13 to require that certain lease modifications that have economic effects similar to sale-leaseback transactions be accounted for in the same manner as sale-leaseback transactions. SFAS 145 is effective for fiscal years beginning after May 15, 2002, with early adoption of the provisions related to the rescission of SFAS 4 encouraged. The Company does not expect the adoption of SFAS 145 to have a material impact on its financial position, results of operations, or cash flows.

In June 2002, the FASB issued SFAS No. 146 ("SFAS 146"), *"Accounting for Costs Associated with Exit or Disposal Activities."* SFAS 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force ("EITF") Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred and states that an entity's commitment to an exit plan, by itself, does not create a present obligation that meets the definition of a liability. SFAS 146 also establishes that fair value is the objective for initial measurement of the liability. The provisions of SFAS 146 are effective for exit or disposal activities initiated after December 31, 2002. The Company does not expect the adoption of SFAS 146 to have a material impact on its financial position, results of operations, or cash flows.

In November 2002, the FASB issued FASB Interpretation No. 45 ("FIN 45"), *"Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others."* FIN 45 elaborates on the existing disclosure requirements for most guarantees, including loan guarantees such as standby letters of credit. It also clarifies that at the time a company issues a guarantee, the company must recognize an initial liability for the fair value, or market value, of the obligations it assumes under the guarantee and must disclose that information in its interim and annual financial statements. The provisions related to recognizing a liability at inception of the guarantee for the fair value of the guarantor's obligations do not apply to product warranties or to guarantees accounted for as derivatives. The initial recognition and measurement provisions of the Interpretation are applicable to guarantees issued or modified after December 31, 2002 and are not expected to have a material effect on the Company's financial statements. The disclosure requirements are effective for financial statements of interim or annual periods ending after December 15, 2002.

In December 2002, the FASB issued SFAS No. 148 ("SFAS 148"), *"Accounting for Stock-Based Compensation — Transition and Disclosure — an amendment of FASB Statement No. 123."* SFAS 148 amends SFAS No. 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, SFAS No. 148 amends the disclosure requirements of SFAS No. 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 Company is required to follow the prescribed format and provide the additional disclosures required by SFAS No. 148 in its annual financial statements for the year ending December 31, 2002 and must also provide the disclosures in its quarterly reports containing condensed financial statements for interim periods beginning with the quarterly period ending March 31, 2003. The adoption of SFAS No. 148 will not have an effect on the Company's financial position or results of operations as the Company does not intend to adopt the fair value method of accounting for stock-based employee compensation.

In January 2003, the FASB issued Interpretation No. 46 ("FIN 46"), *"Consolidation of Variable Interest Entities."* In general, a variable interest entity is a corporation, partnership, trust, or any other legal structure used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors that do not provide sufficient financial resources for the entity to support its activities. FIN 46 requires a variable interest entity to be consolidated by a company if that company is subject to a majority of the risk of loss from the variable interest entity's activities or entitled to receive a majority of the entity's residual returns or both. The consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003. The consolidation requirements apply to older entities in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply in all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. The Company believes that the adoption of FIN 46 will not have a material impact on its financial position, results of operations, or cash flows.

In January 2003, the Emerging Issues Task Force, or EITF, published EITF Issue 00-21, or EITF 00-21, *"Revenue Arrangements with Multiple Deliverables,"* which requires companies to determine whether an arrangement involving multiple deliverables contains more than one unit of accounting. In applying EITF 00-21, revenue arrangements with multiple deliverables should be divided into separate units of accounting if the deliverables in the arrangement meet certain criteria. Arrangement consideration should be allocated among the separate units of accounting based on their relative fair values. EITF 00-21 is effective for revenue arrangements entered into in fiscal periods beginning after June 15, 2003. The Company is currently evaluating the impact the adoption of EITF 00-21 will have on its financial position, results of operations, and cash flows.

3. Acquisition:

On January 31, 2002, the Company acquired all of the outstanding capital stock of BeAtHome.com, Inc. ("BeAtHome®"), a Fargo, North Dakota based developer of remote management system hardware and software. The results of BeAtHome's operations, as well as a one-time charge of $400,000 related to in-process research and development ("IPR&D"), have been included in the consolidated condensed financial statements since that date. As a result of the acquisition, the Company expects to integrate certain components of BeAtHome's technology into its current and future product offerings, such as the Panoramix platform. The Company believes these enhancements will allow customers to more easily aggregate and process information from remote LonWorks networks, thereby increasing overall network management capabilities. In exchange for all of the outstanding capital stock of BeAtHome, the Company paid approximately $5.9 million, comprised of cash payments totaling approximately $2.0 million to BeAtHome's shareholders, the forgiveness of approximately $3.5 million in operating loans made to BeAtHome, and approximately $371,000 of third party expenses.

The following table summarizes the fair value of the assets acquired and liabilities assumed at the date of acquisition (in thousands).

Current assets	$ 129
Property and equipment	373
Other long-term assets	8
Intangible assets	600
Goodwill	5,744
Total assets acquired	$6,854
Current liabilities	961
Total liabilities assumed	$ 961
Net assets acquired	$5,893

Of the $600,000 of acquired intangible assets, $400,000 was assigned to IPR&D and was expensed immediately to product development expenses upon the completion of the acquisition. The remaining $200,000 was assigned to purchased technology with a useful life of two years.

4. Goodwill and Intangible Assets:

The Company adopted SFAS 142 on January 1, 2002. As a result, the Company ceased amortizing approximately $2.1 million of goodwill, which had a net unamortized balance of $1.7 million as of December 31, 2001. During 2001, the Company recorded amortization expenses totaling approximately $320,000 against this balance and would have charged approximately $360,000 of amortization in 2002. In lieu of amortization, SFAS 142 now requires that the Company perform an initial impairment review of its goodwill in 2002 and at least an annual impairment review thereafter. In accordance with these impairment review requirements, the Company has completed a transitional impairment test and determined that there was no impairment. However, if as a result of impairment reviews that are performed from time to time in the future, it is determined that there has been an impairment of the goodwill or other intangible assets, the Company would be required to take an impairment charge.

The following table provides a reconciliation of reported net income to adjusted net income for the year ended December 31, 2001 had SFAS 142 been effective January 1, 2001 (in thousands, except per share amounts):

	Year Ended December 31, 2001		
	Amount	**Basic EPS**	**Diluted EPS**
Reported net income	$6,046	$0.16	$0.15
Add back amortization expense (net of tax):			
Goodwill and workforce in place	320	0.01	0.01
Adjusted net income	$6,366	$0.17	$0.16

The changes in the carrying amount of goodwill, net for the year ended December 31, 2002 are as follows (in thousands):

	Amount
Balance as of December 31, 2001	$1,637
Reclass of workforce in place	74
Unrealized foreign currency translation gain	303
Goodwill resulting from BeAtHome acquisition	5,744
Balance as of December 31, 2002	$7,758

As of December 31, 2002, the Company's intangible assets subject to amortization consisted of purchased technology with a net carrying value of approximately $716,000. For the years ending December 31, 2002, 2001 and 2000, amortization of these intangible assets was $344,000, $213,000, and $0, respectively. Estimated future amortization expense related to these intangible assets is $389,000 in 2003, $297,000 in 2004, and $30,000 in 2005. These future amortization estimates are subject to fluctuations resulting from exchange rate differences between the United States dollar and the European Euro.

5. Commitments and Contingencies:

The Company leases its facilities under operating leases that expire on various dates through 2013. The leases related to the Company's facilities in Palo Alto expired in March and June 2000. The lease related to the temporary facility in Sunnyvale expired in October 2001. In December 1999, the Company entered into a lease agreement with a real estate developer for its new corporate headquarters in San Jose, California. This agreement requires minimum rental payments for ten years totaling approximately $20.6 million and also required that the Company provide a $3.0 million security deposit. The Company satisfied the security deposit requirement by causing to have issued a standby letter of credit ("LOC") in July 2000. The LOC is subject to annual renewals and is currently secured by a line of credit at the bank that issued the LOC.

In October 2000, the Company entered into another lease agreement with the same real estate developer for an additional building at the new headquarter site. Construction on the second building is expected to be completed in May 2003. This second lease agreement also requires minimum rental payments for ten years totaling approximately $23.4 million. Payments under this lease will not begin until the building is completed. In addition, this second lease agreement also required a security deposit of $5.0 million. The Company satisfied this security deposit requirement by causing to have issued another LOC in October 2001. This LOC is also subject to annual renewals and is currently secured by a line of credit at the bank that issued it.

As of December 31, 2002, future minimum lease payments under all operating leases were as follows (in thousands):

2003	$ 4,193
2004	4,668
2005	4,572
2006	4,464
2007	4,439
Thereafter	21,315
Total	$43,651

Rent expense was $3,108,201 for 2002, $2,250,214 for 2001 and $1,758,000 for 2000. The lease agreements provide for escalating rent payments over the term of the lease. Rent expense under these agreements is recognized on a straight-line basis. As of December 31, 2002, and December 31, 2001, the Company has accrued about $167,000 and $47,000, respectively, of deferred rent related to these agreements that is reflected in long-term liabilities in the accompanying consolidated balance sheets.

6. Stockholders' Equity and Employee Stock Option Plans:

Preferred Stock

With the closing of the Company's initial public offering ("IPO") in July 1998, all of the outstanding preferred stock automatically converted into 7,887,381 shares of common stock. Upon conversion of the outstanding preferred stock to common stock, such preferred stock was retired. As of December 31, 2002, the Company was authorized to issue 5,000,000 shares of new $0.01 par value preferred stock, of which none was outstanding as of December 31, 2002.

Common Stock

As of December 31, 2002, the Company was authorized to issue 100,000,000 shares of $0.01 par value common stock.

In September 2001, the Company's Board of Directors approved a stock repurchase program which authorizes the Company to repurchase up to 2.0 million shares of the Company's common stock. Unless otherwise terminated by the Board, the program will be in effect for a period of two years from the date of the first purchase under the program. In September 2001, the Company repurchased 265,000 shares under the program at a cost of $3.2 million. As of December 31, 2002, approximately 1.7 million shares remained available for repurchase under the program.

In June 2000, the Company entered into a stock purchase agreement with Enel, which was completed on September 11, 2000. Under this agreement, Enel acquired 3,000,000 newly issued shares of the Company's common stock that generated net proceeds of $130.7 million.

Warrants

In connection with the issuance of Series E preferred stock in 1997, warrants to purchase an aggregate of 400,000 shares of common stock at a per share exercise price of $5.00 were issued. At the date of issuance, the fair market value of these warrants was deemed to be immaterial. These warrants were exercisable at any time prior to expiration, which was defined as the earlier of May 15, 2002 or upon a change in control. Each warrant contained a cashless conversion right. As of December 31, 2002, all of these warrants had been exercised and none remained outstanding.

Stock Option Program Description

The Company has two plans under which it grants options: the 1997 Stock Plan (the "1997 Plan") and the 1998 Director Option Plan (the "Director Option Plan"). A more detailed description of each plan can be found below.

Stock option grants are designed to reward employees, officers, and directors for their long-term contribution to the Company and provide incentives for them to remain with the Company. The number and frequency of stock option grants is based on competitive practices, operating results of the Company, and government regulations. Since the inception of the 1997 Plan, the Company has granted options to all of its employees.

1997 Stock Plan

During 1997, the Company adopted the 1997 Stock Plan (the "1997 Plan") for employees, officers and directors. As of December 31, 2002, a total of 10,565,830 shares of Common Stock are reserved for issuance under the 1997 Plan. This plan includes annual increases on the first day of the Company's fiscal year (beginning in 2000) not to exceed the lesser of (i) 5,000,000 shares or (ii) 5% of the outstanding shares on such date. Incentive stock options to purchase shares of common stock may be granted at not less than 100% of the fair market value. Options granted prior to June 15, 2000 generally have a term of five years from the date of grant, not to exceed ten years. Options granted on or after June 15, 2000 generally have a term of ten years. The exercise price of nonstatutory stock options and stock purchase rights granted under the 1997 Plan is determined by the Administrator, but will also be at least equal to 100% of the fair market value per share of common stock on the grant or issue date, except that up to 10% of the aggregate number of shares reserved for issuance under the 1997 Plan (including shares that have been issued or are issuable in connection with options exercised or granted under the 1997 Plan) may have exercise prices that are from 0% to 100% of the fair market value of the common stock on the date of grant. Options generally vest ratably over four years. Fair market value is determined with reference to the closing price of the common stock as reported on the Nasdaq National Market on the date immediately preceding grant date.

The 1997 Plan also allows for the issuance of options that are immediately exercisable through execution of a restricted stock purchase agreement. Shares purchased pursuant to a stock purchase agreement generally vest ratably over four years. In the event of termination of employment, the Company, at its discretion, may repurchase unvested shares at a price equal to the original issuance price.

1998 Directors Option Plan

Non-employee directors are entitled to participate in the 1998 Director Option Plan (the "Director Plan"). The Director Plan was adopted by the Board of Directors in May 1998 and became effective upon the closing of the stock offering in July 1998. The Director Plan has a term of ten years, unless terminated sooner by the Board. As of December 31, 2002, a total of 687,500 shares of Common Stock are reserved for issuance under the Director Plan. The plan provides for an increase each year equal to 100,000 shares or such lesser amount as the Board may determine. The plan also provides for the automatic grant of 25,000 shares of common stock (the "First Option") to each non-employee director on the date he or she first becomes a director. Each non-employee director is also automatically granted an option to purchase 10,000 shares (a "Subsequent Option") on the date of the Company's Annual Stockholder Meeting provided that he or she is re-elected to the Board or otherwise remains on the Board, if on such date he or she shall have served on the Board for at least the preceding six months. Each First Option and each Subsequent Option shall have a term of five years and the shares subject to the option shall vest as to 25% of the shares subject to option on each anniversary of the date of grant for options granted before May 11, 1999 and 100% on the date of grant for options granted on or after May 11, 1999. The exercise price of each First Option and Subsequent Option shall be 100% of the fair market value per share of the common stock, generally determined with reference to the closing price of the common stock as reported on the Nasdaq National Market on the date preceding grant date. In each of 2002 and 2001, options to purchase an aggregate of 95,000 shares were granted under the Director Plan. The weighted average exercise prices for the option grants in 2002 and 2001, respectively, were $15.63 and $24.82.

In the event of a merger of the Company with or into another corporation or the sale of substantially all of the assets of the Company, each option shall be assumed or an equivalent option may be substituted by the successor corporation. Following such assumption or substitution, if the optionee's status as a director of the successor corporation terminates other than upon a voluntary resignation by the optionee, the option shall become fully exercisable, including as to shares as to which it would not otherwise be exercisable. If the outstanding options are not assumed or substituted, the options shall become fully vested and exercisable. Options granted under the Director Plan must be exercised within three months of the end of the optionee's tenure as a director of the Company, or within twelve months after such director's termination by death or disability, but in no event later than the expiration of the option's five year term; provided, however, that shares subject to an option granted to a director who has served as a director with the Company for at least five years shall become fully vested and exercisable for the remainder of the option's five year term upon such director's termination. No option granted under the Director Plan is transferable by the optionee other than by will or the laws of descent and distribution, and each option is exercisable, during the lifetime of the optionee, only by such optionee.

Equity Compensation Plan Summary Information

The following table summarizes the Company's stock option plans as of December 31, 2002.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options	Weighted-Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Issuance Under Stock Option Plans*
Equity compensation plans approved by stockholders	8,134,914	$17.44	3,118,416
Equity compensation plans not approved by stockholders	—	—	—
Total	8,134,914	$17.44	3,118,416

* As noted above, both the 1997 Plan and the Director Plan provide for annual increases to the number of shares authorized for issuance under the plan. The amounts reflected in this table represent balances remaining available for future stock option issuance as of December 31, 2002.

Distribution and Dilutive Effect of Options

The following table illustrates the grant dilution and exercise dilution:

	Year Ended December 31,		
	2002	2001	2000
Shares of common stock outstanding	39,725,550	38,753,360	38,049,696
Options granted	2,282,750	2,560,225	1,789,975
Options cancelled	(81,872)	(244,314)	(320,905)
Net options granted	2,200,878	2,315,911	1,469,070
Grant dilution*	5.5%	6.0%	3.9%
Options exercised	631,917	971,107	1,810,262
Exercise dilution**	1.6%	2.5%	4.8%

* The percentage for grant dilution is computed based on options granted less options cancelled as a percentage of total outstanding shares of common stock.

** The percentage for exercise dilution is computed based on options exercised as a percentage of total outstanding shares of common stock.

The following table summarizes the options granted to the Named Executive Officers. The Named Executive Officers represent the Company's Chief Executive Officer and the four other most highly paid executive officers whose salary and bonus for the respective fiscal year were in excess of $100,000.

	Year Ended December 31,		
	2002	2001	2000
Options granted to the Named Executive Officers	540,000	450,000	280,000
Options granted to the Named Executive Officers as a % of net options granted	24.7%	19.4%	19.1%
Options granted to the Named Executive Officers as a % of outstanding shares	1.4%	1.2%	0.7%
Cumulative options held by Named Executive Officers as a % of total outstanding options	23.8%	24.8%	32.7%

General Option Information

The following table summarizes option activity under all plans (prices are weighted average prices):

	Options Available for Grant	Options Outstanding: Number Outstanding	Options Outstanding: Weighted-Average Exercise Price Per Share
Balance at December 31, 1999	3,302,112	5,562,341	$ 4.03
Granted	(1,789,975)	1,789,975	33.63
Cancelled	320,905	(320,905)	9.17
Exercised	—	(1,810,262)	2.73
Additional shares reserved	1,762,011	—	—
Balance at December 31, 2000	3,595,053	5,221,149	$14.31
Granted	(2,560,225)	2,560,225	15.89
Cancelled	244,314	(244,314)	20.54
Exercised	—	(971,107)	2.55
Additional shares reserved	2,002,484	—	—
Balance at December 31, 2001	3,281,626	6,565,953	$16.44
Granted	(2,282,750)	2,282,750	16.35
Cancelled	81,872	(81,872)	26.04
Exercised	—	(631,917)	1.99
Additional shares reserved	2,037,668	—	—
Balance at December 31, 2002	3,118,416	8,134,914	$17.44

The following table summarizes the stock options outstanding as of December 31, 2002:

	Options Outstanding			Options Exercisable	
Exercise Price Range	Number Outstanding at December 31, 2002	Weighted Average Remaining Life (in years)	Weighted Average Exercise Price	Number Exercisable December 31, 2002	Weighted Average Exercise Price
$ 2.00 – $ 7.00	562,369	0.64	$ 5.34	558,097	$ 5.33
7.06	1,042,816	1.61	7.06	962,975	7.06
7.16 – 11.61	1,212,042	7.86	11.28	565,030	11.00
11.99 – 14.81	548,567	7.59	13.39	195,724	13.31
14.90 – 16.35	1,744,050	9.12	16.34	221,236	16.32
16.36 – 20.34	905,750	8.54	17.58	316,946	16.72
20.38 – 29.38	616,750	8.24	24.42	368,642	24.69
30.25	1,073,570	2.32	30.25	833,623	30.25
$30.76 – $90.50	429,000	3.60	43.12	284,213	43.36
	8,134,914	5.96	$17.44	4,306,486	$17.22

Certain options issued under the 1997 Plan may be exercised at any time prior to their expiration, even if those options have not yet vested. Shares issued upon exercise of unvested options are considered unvested shares. Once issued, the unvested shares continue vesting in accordance with original option's vesting schedule. If the option holder's employment or service with the Company terminates before the unvested shares become fully vested, the Company has the right, at its discretion, to repurchase from the option holder any unvested shares at the exercise price paid by the option holder. As of December 31, 2002, 14,271 shares were subject to repurchase by the Company at $7.06 per share. Of the 4,306,486 options exercisable as of December 31, 2002, 3,835,118 were vested.

Shares Reserved

As of December 31, 2002, the Company had 11,253,330 shares of common stock reserved for future issuance.

Executive Options

The following table sets forth certain information with respect to stock options granted to Named Executive Officers during the fiscal year ended December 31, 2002. All option grants were made under the 1997 Plan.

	Individual Grants				Potential Realizable Value At Assumed Annual Rates of Stock Price Appreciation for Option Term ($)**	
Name	**Number of Securities Underlying Options Granted**	**% of Total Options Granted to Employees in Fiscal Year***	**Exercise Price Per Share ($)**	**Expiration Date**	**5%**	**10%**
M. Kenneth Oshman	200,000	9.1	16.35	2/22/2012	2,056,485	5,211,538
Beatrice Yormark	100,000	4.6	16.35	2/22/2012	1,028,243	2,605,769
Oliver R. Stanfield	100,000	4.6	16.35	2/22/2012	1,028,243	2,605,769
Frederick H. Bruggink	60,000	2.7	16.35	2/22/2012	616,946	1,563,461
Frederick H. Bruggink	20,000	0.9	10.52	9/20/2012	132,319	335,323
Peter A. Mehring	60,000	2.7	16.35	2/22/2012	616,946	1,563,461

* Based on a total of 2,187,750 options granted to all employees in the fiscal year ended December 31, 2002.

** Potential gains are net of the exercise price but before taxes associated with the exercise. The 5% and 10% assumed annual rates of compounded stock appreciation based upon the deemed fair market value are for illustrative purposes only and do not represent the Company's estimate or projection of the future common stock price. Actual gains, if any, on stock option exercises are dependent on several factors, including the Company's future financial performance, overall market conditions, and the option holder's continued employment with the Company. There can be no assurance that the amounts reflected in this table will be achieved.

The following table sets forth certain information concerning shares acquired upon the exercise of stock options during the fiscal year ended December 31, 2002 and exercisable and unexercisable options held as of December 31, 2002 for our Named Executive Officers.

			Number of Securities Underlying Unexercised Options at December 31, 2002 (#)		Value of Unexercised In-the Money Options at December 31, 2002 ($)**	
Name	**Shares Acquired on Exercise (#)**	**Value Realized ($)***	**Exercisable**	**Unexercisable**	**Exercisable**	**Unexercisable**
M. Kenneth Oshman	—	—	800,000	—	1,043,050	—
Beatrice Yormark	110,000	1,298,000	179,166	145,834	521,525	—
Oliver R. Stanfield	120,000	1,416,000	179,166	145,834	521,525	—
Frederick H. Bruggink	—	—	74,166	105,834	13,800	—
Peter A. Mehring	—	—	220,833	89,167	876,775	—

* The value realized is based on the closing price of our common stock on the date of exercise, minus the per share exercise price, multiplied by the number of shares exercised.

** The value of underlying securities is based on the $11.21 per share closing price of our common stock on December 31, 2002 minus the aggregate exercise price.

Accounting for Stock-Based Employee Compensation Plans

The Company accounts for its stock-based employee compensation plans under the recognition and measurement principles of APB Opinion No. 25, *Accounting for Stock issued to Employees*, and related Interpretations. With the exception of deferred compensation expense attributable to options granted during 1998, no stock-based employee compensation cost is reflected in net income, as all options granted under the plans had an exercise price equal to the market value of the underlying common stock on the date of grant. The following table illustrates the effect on net income and earnings per share if the Company had applied the fair value recognition provisions of FASB Statement No. 123, "Accounting for Stock-Based Compensation," to stock-based employee compensation.

	Year Ended December 31,		
	2002	2001	2000
Net income/(loss) as reported	$ 16,757	$ 6,046	$ 84
Add: Deferred compensation	31	184	184
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(32,822)	(29,819)	(22,543)
Pro forma net income/(loss)	$(16,034)	$(23,589)	$(22,275)
Basic earnings/(loss) per share:			
As reported	$ 0.42	$ 0.16	$ 0.00
Pro forma	(0.41)	(0.61)	(0.63)
Diluted earnings/(loss) per share:			
As reported	0.41	0.15	0.00
Pro forma	(0.41)	(0.61)	(0.63)

The weighted-average grant date fair value of options granted during 2002 was $12.91, $13.16 in 2001 and $27.20 in 2000. Under SFAS No. 123, the fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Year Ended December 31,		
	2002	2001	2000
Expected dividend yield	0.0%	0.0%	0.0%
Risk-free interest rate	4.2%	4.5%	6.4%
Expected volatility	118.0%	129.0%	124.0%
Expected life (in years)	4.4	4.4	4.2

Because additional stock options are expected to be granted each year, the above pro forma disclosures are not representative of pro forma effects on reported financial results for future years.

Deferred Compensation

In connection with the issuance of stock options during 1998, the Company recorded deferred compensation in the aggregate amount of $755,000, representing the difference between the deemed fair value of the Company's common stock and the exercise price of the stock options at the date of grant. The Company amortized the deferred compensation expense over the shorter of the period in which the employee provides services or the applicable vesting period, which is typically 48 months. During 2002, amortization expense was $31,000. For each of 2001 and 2000, amortization expense was $184,000. Deferred compensation is decreased in the period of forfeiture arising from the early termination of an option holder's services. As of December 31, 2002, this deferred compensation balance was fully amortized.

7. Income Taxes:

The provision (benefit) for income taxes attributable to continuing operations is based upon income (loss) before income taxes from continuing operations as follows (in thousands):

	Year Ended December 31,		
	2002	2001	2000
Domestic	$18,995	$ 7,957	$ 892
Foreign	(781)	(1,659)	(663)
	$18,214	$ 6,298	$ 229

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

	Year Ended December 31,		
	2002	2001	2000
Federal:			
Current	$ —	$ 34	$ —
Deferred	—	—	—
Total federal provision	—	34	—
State:			
Current	439	111	28
Deferred	—	—	—
Total state provision	439	111	28
Foreign:			
Current	1,018	107	117
Deferred	—	—	—
Total foreign provision	1,018	107	117
Total provision for income taxes	$1,457	$252	$145

The provision for income taxes differs from the amount estimated by applying the statutory Federal income tax rate to income before taxes as follows (in thousands):

	Year Ended December 31,		
	2002	2001	2000
Federal tax at statutory rate of 35%	$ 6,375	$ 2,205	$ 80
State taxes, net of federal benefit	286	72	18
U.S.-Foreign rate differential	976	681	342
Utilization of net operating loss not previously benefited	(6,784)	(2,936)	(359)
Other non-deductible permanent differences	290	224	57
Others	314	6	7
Total provision for income taxes	$ 1,457	$ 252	$ 145

The components of the net deferred income tax asset are as follows (in thousands):

	December 31,	
	2002	2001
Net operating loss carry forwards	$ 32,856	$ 31,540
Foreign net operating losses carry forwards	3,106	2,240
Tax credit carry forwards	8,534	8,663
Capitalized research and development costs	711	1,303
Reserves and other cumulative temporary differences	2,832	2,719
Gross deferred income tax assets	48,039	46,465
Valuation allowance	(48,039)	(46,465)
Net deferred income tax assets	$ —	$ —

As of December 31, 2002, the Company had net operating loss carryforwards of $93.1 million for Federal income tax reporting purposes and $8.7 million for State income tax reporting purposes, which expire at various dates through 2021. In addition, as of December 31, 2002, the Company had approximately $6.0 million and $3.7 million of tax credit carry forwards for increased research expenditures for Federal and California purposes, respectively. The federal increased research tax credits will expire at various dates through 2021 and the state tax credit can be carried over indefinitely. For California purposes, the Company also had approximately $191,000 of alternative minimum tax credit carry forwards, which can be carried over indefinitely.

As of December 31, 2002 and 2001, approximately $10.9 million and $11.6 million, respectively, of the gross deferred income tax assets for each year consist of certain net operating loss carry forwards resulting from the exercise of employee stock options that have not been recognized in the financial statements. When utilized, the tax benefit of these carry forwards will be accounted for as a credit to additional paid in capital. In addition, the Internal Revenue Code of 1986, as amended, contains provisions that limit the net operating loss and credit carryforwards available for use in any given period upon the occurrence of certain events, including a significant change in ownership interests. The Company has performed an analysis of the ownership changes and has reported the net operating loss and credit carryforwards considering such limitations.

As of December 31, 2002 and 2001, a valuation allowance has been recorded for the entire gross deferred tax asset as a result of uncertainties regarding the realization of the asset balance. The valuation allowance was increased by $1.6 million in 2002 and by $525,000 in 2001. As of December 31, 2002 and 2001, the Company had no significant deferred tax liabilities.

8. Related Parties:

In June 2000, the Company entered into a stock purchase agreement with Enel S.p.A., an Italian utility company ("Enel"). At the same time, the Company also entered into a research and development agreement with an affiliate of Enel. Under the terms of the R&D agreement, the Company will cooperate with Enel to integrate LonWorks technology into Enel's remote metering management project in Italy. For the years ended December 31, 2002 and December 31, 2001, the Company recognized revenue of approximately $81.6 million and $31.0 million, respectively, related to products and services sold to Enel and its contract manufacturers. For the period starting September 11, 2000, the closing date of the stock purchase agreement, and ending December 31, 2000, the Company recognized approximately $727,000 of revenue under the Enel program. As of December 31, 2002 and 2001, approximately $17.2 million and $23.0 million, respectively, of these revenues were included in accounts receivable.

9. Segment Disclosure:

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing business performance. The Company's chief operating decision-making group is the Executive Staff, which is comprised of the Chief Executive Officer, the Chief Operating Officer, and their direct reports.

The Company operates in one principal industry segment: the design, manufacture and sale of products for the controls network industry, and markets its products primarily to the building automation, industrial automation, transportation, and utility/home automation markets. The Company's products are marketed under the LonWorks® brand name, which provides the infrastructure, and support required to implement and deploy open, interoperable, control network solutions. All of the Company's products either incorporate or operate with the Neuron® Chip and/or the LonWorks protocol. The Company also provides services to customers which consist of technical support and training courses covering its LonWorks network technology and products. The Company offers about 90 products and services that together constitute the LonWorks system. Any given customer purchases a small subset of such products and services that are appropriate for that customer's application.

The Company manages its business primarily on a geographic basis. The Company's geographic areas are comprised of the Americas, Europe, Middle East and Africa ("EMEA") and Asia Pacific/ Japan ("APJ"). Each geographic area provides products and services as further described in Note 1. The Company evaluates the performance of its geographic areas based on profit or loss from operations. Profit or loss for each geographic area includes sales and marketing expenses and other charges directly attributable to the area and excludes certain expenses that are managed outside the geographic area. Costs excluded from area profit or loss primarily consist of unallocated corporate expenses, comprised of product development costs, corporate marketing costs and other general and administrative expenses, which are separately managed. The Company has no long-lived assets, other than property and equipment and loans to certain key employees. Long-lived assets are attributed to geographic areas based on the country where the assets are located. Long-lived assets of about $19.2 million were domiciled in the United States as of December 31, 2002, and long-lived assets of about $20.2 million were domiciled in the United States as of December 31, 2001. Long-lived assets for all other locations are not material to the consolidated financial statements. Assets and the related depreciation and amortization are not being reported by geography because the information is not reviewed by the Executive Staff to make decisions about resources to be allocated to the geographic areas based on their performance.

In North America, the Company sells its products through a direct sales organization. Outside North America, direct sales, applications engineering and customer support are conducted through the Company's operations in EMEA and APJ. Revenues are attributed to geographic areas based on the country where the customer is domiciled. Summary information by geography for the years ended December 31, 2002, 2001 and 2000 is as follows (in thousands):

	Year Ended December 31, ,		
	2002	2001	2000
Revenues from customers:			
Americas	$ 14,470	$ 16,767	$ 15,505
EMEA	62,682	42,608	23,265
APJ	45,682	17,206	9,477
Unallocated	—	8	1,052
Total	$122,834	$ 76,589	$ 49,299
Gross profit:			
Americas	$ 8,484	$ 10,693	$ 9,454
EMEA	32,406	19,349	12,735
APJ	22,005	9,350	5,816
Unallocated	—	8	1,052
Total	$ 62,895	$ 39,400	$ 29,057
Income (loss) from operations:			
Americas	$ 4,952	$ 6,976	$ 5,586
EMEA	28,984	16,128	9,322
APJ	18,360	5,613	1,723
Unallocated	(37,858)	(29,074)	(20,421)
Total	$ 14,437	$ (357)	$ (3,790)

Products sold to Enel and its contract manufacturers accounted for 66.4% of total revenues for the year ended December 31, 2002, 40.5% for the year ended December 31, 2001, and 3.1% for the year ended December 31, 2000. In addition, EBV, the sole independent distributor of the Company's products in Europe since December 1997, accounted for 9.2% of total revenues for 2002, 16.9% of total revenues for 2001, and 26.5% of total revenues for 2000.

10. Selected Quarterly Financial Data (Unaudited):

The following tables set forth certain consolidated statement of operations data for each of the quarters in 2002 and 2001, as well as the percentage of our net revenues represented by each item. This information has been derived from our quarterly unaudited consolidated financial statements. The quarterly unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements included in this report and include all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of such information when read in conjunction with our annual audited consolidated financial statements and notes appearing elsewhere in this report. The operating results for any quarter do not necessarily indicate the results for any subsequent period or for the entire fiscal year.

	Quarter Ended							
	Q402	Q302	Q202	Q102	Q401	Q301	Q201	Q101
	(in thousands, except per share data)							
Consolidated Statement of Operations Data:								
Net revenues:								
Product	$30,295	$33,073	$30,860	$27,226	$31,763	$17,655	$13,247	$12,112
Service	286	277	458	359	338	328	670	476
Total net revenues	30,581	33,350	31,318	27,585	32,101	17,983	13,917	12,588
Cost of revenues:								
Cost of product	14,483	15,630	14,111	12,835	16,292	8,697	5,600	4,253
Cost of service	730	699	780	671	606	518	686	537
Total cost of revenues	15,213	16,329	14,891	13,506	16,898	9,215	6,286	4,790
Gross profit	15,368	17,021	16,427	14,079	15,203	8,768	7,631	7,798
Operating expenses:								
Product development	5,055	5,405	5,376	5,620	4,820	4,320	4,064	3,824
Sales and marketing	4,358	4,354	4,293	4,286	4,316	3,732	3,848	3,891
General and administrative	2,839	2,394	2,226	2,252	1,703	1,438	1,487	2,314
Total operating expenses	12,252	12,153	11,895	12,158	10,839	9,490	9,399	10,029
Income/(loss) from operations	3,116	4,868	4,532	1,921	4,364	(722)	(1,768)	(2,231)
Interest and other income, net	844	922	1,011	1,000	1,083	1,511	1,807	2,254
Income before provision for income taxes	3,960	5,790	5,543	2,921	5,447	789	39	23
Provision for income taxes	317	463	443	234	218	32	1	1
Net income	$ 3,643	$ 5,327	$ 5,100	$ 2,687	$ 5,229	$ 757	$ 38	$ 22
Income per share:								
Basic	$ 0.09	$ 0.13	$ 0.13	$ 0.07	$ 0.14	$ 0.02	$ 0.00	$ 0.00
Diluted	$ 0.09	$ 0.13	$ 0.12	$ 0.07	$ 0.13	$ 0.02	$ 0.00	$ 0.00
Shares used in per share calculation:								
Basic	39,685	39,658	39,443	39,029	38,502	38,648	38,482	38,053
Diluted	40,557	40,619	40,818	41,085	40,612	41,526	41,458	40,916

SCHEDULE II

ECHELON CORPORATION
VALUATION AND QUALIFYING ACCOUNTS
(in thousands)

ALLOWANCE FOR DOUBTFUL ACCOUNTS,
CUSTOMER RETURNS, AND SALES CREDITS

Description	Beginning Balance	Charged to Revenues and Expenses	Deductions	Ending Balance
Year ended December 31, 2000	$1,367	528	—	$1,895
Year ended December 31, 2001	$1,895	172	—	$2,067
Year ended December 31, 2002	$2,067	569	—	$2,636

SIGNATURES

Pursuant to the requirements 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.

ECHELON CORPORATION

By: /s/ OLIVER R. STANFIELD

Oliver R. Stanfield
Executive Vice President and Chief Financial Officer (Duly Authorized Officer and Principal Financial and Accounting Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints M. Kenneth Oshman and Oliver R. Stanfield his true and lawful attorney-in-fact and agent, with full power of substitution and, for him and in his name, place and stead, in any and all capacities to sign any and all amendments to this Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934, THIS REPORT HAS BEEN SIGNED BY THE FOLLOWING PERSONS ON BEHALF OF THE REGISTRANT AND IN THE CAPACITIES AND ON THE DATES INDICATED.

Signatures	Title	Date
/s/ M. KENNETH OSHMAN M. Kenneth Oshman	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	March 25, 2003
/s/ OLIVER R. STANFIELD Oliver R. Stanfield	Executive Vice President and Chief Financial Officer (Principal Financial and Principal Accounting Officer)	March 28, 2003
/s/ ARMAS CLIFFORD MARKKULA, JR. Armas Clifford Markkula, Jr.	Vice Chairman	March 26, 2003
/s/ ROBERT J. FINOCCHIO, JR. Robert J. Finocchio, Jr.	Director	March 26, 2003
/s/ MICHAEL E. LEHMAN Michael E. Lehman	Director	March 27, 2003
/s/ ARTHUR ROCK Arthur Rock	Director	March 25, 2003
/s/ LARRY W. SONSINI Larry W. Sonsini	Director	March 24, 2003

CERTIFICATION

I, M. Kenneth Oshman, certify that:

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

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 represent 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 officer 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 we 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 officer 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;

   b. and 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 officer and I have indicated in this annual report whether or not 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.

ECHELON CORPORATION

By: /s/ M. Kenneth Oshman

M. Kenneth Oshman,
Chairman of the Board and Chief Executive Officer
(Principal Executive Officer)

Date: March 25, 2003

CERTIFICATION

I, Oliver R. Stanfield, certify that:

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

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 represent 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 officer 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 we 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 officer 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 officer and I have indicated in this annual report whether or not 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.

ECHELON CORPORATION

By: /s/ OLIVER R. STANFIELD

Oliver R. Stanfield,
Executive Vice President Finance and Chief Financial Officer (Duly Authorized Officer and Principal Financial and Accounting Officer)

Date: March 25, 2003

EXHIBIT INDEX

Exhibit No.	Description of Document
3.2*	Amended and Restated Certificate of Incorporation of Registrant.
3.3	Amended and Restated Bylaws of Registrant.
4.1*	Form of Registrant's Common Stock Certificate.
4.2*	Second Amended and Restated Modification Agreement dated May 15, 1997.
10.1*	Form of Indemnification Agreement entered into by Registrant with each of its directors and executive officers.
10.2*†	1997 Stock Plan and forms of related agreements.
10.3*†	1988 Stock Option Plan and forms of related agreements.
10.4*	Second Amended and Restated Modification Agreement dated May 15, 1997 (included in Exhibit 4.2).
10.5*	Form of International Distributor Agreement.
10.6*	Form of OEM License Agreement.
10.7*	Form of Software License Agreement.
10.8*	International Distributor Agreement between the Company and EBV Elektronik GmbH as of December 1, 1997.
10.9*†	1998 Director Option Plan.
21.1*	Subsidiaries of the Registrant.
23.1	Consent of KPMG LLP.
24.1	Power of Attorney (see signature page).
99.1	Certification by the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.2	Certification by the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Previously filed.

† Indicates management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 14(c) of Form 10-K.

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