



Proxy Statement and 2004 Annual Report to Shareholders

Letter to
Shareholders

Notice of 2005
Annual Meeting and
Proxy Statement

2004 Annual Report
to Stockholders

- Management's
Discussion and
Analysis

- Consolidated
Financial
Statements

Other Stockholder
Information

Dear fellow shareholder,

First, thank you for your support of Echelon. We made good progress in 2004.

We launched exciting new products that strengthened our leadership position in the control networking market — which we believe is poised for fantastic growth — and set new standards for low cost and high performance. We continued to move forward in the utility market with the start of several strategically important trials and ongoing product innovation. Echelon continues to be a strong, productive, and visionary company.

Today, Echelon delivers greater value than at any other time in our history. Our LONWORKS® technology platform helps our original equipment manufacturer (OEM) customers build better products faster, and at a price that fits their budgets. In turn, their Echelon-based products are deployed in control networks around the world. Our products enable companies to tap into these networks to see instantly how a device or application is running, and take immediate action, if necessary. And our vision — to tie every electronic device to a control network — is helping them achieve this goal.

In the utility industry, we continue to make important investments in product development, market education, and partner development. We see the utility space as a very large and attractive potential market for Echelon, and our NES system offers utilities a unique value proposition that can provide benefits to key aspects of their operations, from metering and customer services to distribution operations and value-added business. In 2004 we made important strides in the market, with over a half-dozen trials spread across Europe and Asia now in various stages of planning or deployment. While the decision-making process of utilities remains one that is hard to predict and even harder to control, we expect that the pilot and tender activities we're engaged in will begin to bear fruit in 2005.

Echelon is committed to developing the products, technology, and solutions that will extend our leadership position in the control networks market. Over the coming months and years we intend to drive this market even further through a systematic roll-out of products showing the value of such networks to engineers, product planners, and system architects — offering them world-class results for a very small investment in time and money.

A number of events were particularly important in 2004 for Echelon:

- The U.S. Army, Navy, and Air Force released an open system specification for automating buildings and facilities based on our LonWORKS control networking platform;
- We saw a number of high-profile deployments in a diverse set of applications, including China's Shanxi provincial government for regulating mine safety, the Helsinki City Transport for train control, and the Shanghai Water Authority for flood control;
- We launched and introduced a number of exciting new products designed to extend the control networking industry, including the new LNS® Turbo Edition network management software that manages networks more reliably and faster; the *i*.LON® 100 e2 Internet Server, a low-cost, high-performance product that connects networks and devices to corporate IP networks and to the Internet; and the LonScanner™ Protocol Analyzer, which is designed to troubleshoot and fine-tune network operations;
- We introduced the NES smart metering system in the Asia/Pacific region and announced a pilot project with NGC Holdings Ltd. (New Zealand), in which they intend to deploy the system to analyze the improvement it can make to their operations; and
- We met all compliance measures of the Sarbanes and Oxley Act (SOX) and our internal controls are in line with its requirements and procedures — an enormous undertaking for a company of our size.

The actions we've taken over the past years have given us the right ingredients for success and created a solid foundation for future growth. Echelon's entire management team and all of our employees are focused on driving the company toward improved performance, consistent operations, and profitable growth. For complete revenue information, please see the balance sheet in the financial section of this report.

To our customers, partners, our long-term shareholders, and especially our outstanding and dedicated employees, thank you very much.



M. Kenneth Oshman
Chairman & Chief Executive Officer
April 15, 2005

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 anticipated growth in the control networks market and in Echelon's business, in general, and the LonWORKS infrastructure business and NES business, in particular; the ability of Echelon's products to perform as designed and produce faster, less expensive solutions for customers; the market for the NES system, including the amount and timing of revenue expected from the NES system, overall and per connected site, the success of trials, and the ability to win larger and longer term contracts for NES system installations; the timing of customer orders; demand for Echelon's products and services; 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.

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, 2004

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
(State or other jurisdiction of
incorporation or organization)

77-0203595
(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 on 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 30, 2004, the last business day of the Registrant's most recently completed second fiscal quarter, there were 41,176,882 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 \$11.19 of such shares on the Nasdaq National Market on June 30, 2004) was approximately \$309.5 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.

As of February 28, 2005, 40,894,485 shares of the registrant's common stock, \$.01 par value per share, were issued and outstanding.

**ECHELON CORPORATION
FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2004**

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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 27, 2005, 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,” “Off-Balance-Sheet Arrangements and Other Contractual Obligations,” “Liquidity and Capital Resources,” “Acquisitions,” “Related Party Transactions,” “Recently Issued Accounting Standards,” “Equity Based Compensation,” 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 to form systems called control networks. In control networks, devices communicate with one another to perform a control or monitoring application. Control networks can manage key functions in virtually all types of facilities and applications 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 waste water treatment plants, to the lights in your home. Our products and services can be used across many industries to network together the devices used in systems that monitor and control utilities, buildings, factories, transportation systems, homes, and other systems.

Our products and services provide the infrastructure and support required to build and implement control networks. Our wide-ranging product offerings include transceivers, concentrator products, control modules, routers, network interfaces, development tools, and software tools and toolkits. They are built on open industry standards, including both Internet standards and LONWORKS® technology, a technology optimized for low-cost control networks that we developed. By open technology standards we mean that many official standards-making bodies have published industry standards based on all or parts of the technology. Our LONWORKS technology has been adopted in whole or in part by many of these bodies and we license many of our technology patents broadly without royalties or license fees.

Traditionally, most control systems have used proprietary, centrally-controlled architectures in which the control is centralized or hard-wired. Control networks using Echelon’s control network infrastructure products are an alternative to the traditional approach of proprietary, centralized control. We believe that proprietary, centrally-controlled systems are more costly to install, less reliable, and more difficult to customize than control networks based on our products. Compared with traditional control systems, we believe that control networks based on our products can reduce life-cycle costs, save energy, 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, control networks using our products can enable new applications while providing improved reliability, serviceability, and functionality.

We market our control network infrastructure products and services to original equipment manufacturers (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. We also sell our products through distributors in Europe, Japan, 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 Access S.p.A., Celestica Italy S.r.L., and Jabil Circuit Italia S.r.L.), BOC Edwards, Fuji Electric, Honeywell, Invensys Intelligent Systems, Johnson Controls, NTT Data, Samsung, Schindler Elevator, Siemens, and TAC AB (a wholly owned subsidiary of Schneider Electric).

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 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 2002 and 2003, we increased the volume of these shipments as Enel began its deployments. During 2004, as we anticipated, we began to decrease shipments of our products as Enel began to complete its project roll-out. We expect Enel to complete installations in Italy of the Contatore Elettronico some time during 2005. 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 December 2003, we began shipments of our networked energy services, or NES, system, which we market to electric utilities directly and through selected value added resellers and integration partners, which to date have been located primarily in Europe and Asia. The NES system is built upon our LONWORKS network infrastructure products and consists of a set of intelligent, communicating digital electricity meters, data concentrators that supervise and manage meters, and server software based on our Panoramix® enterprise software platform. By providing an open, bidirectional, and extensible infrastructure to enable a comprehensive range of utility applications, we believe that the NES system brings cost savings in a wide range of a utility's functions, from metering and customer services to distribution operations and value-added services. We believe that, in total, the benefits derived from our NES system deliver a more compelling return on investment than "traditional" automatic meter reading, or AMR, systems, which provide limited functionality, often over proprietary, one-way networks.

In 2002, we generated an operating profit of \$14.4 million. Included in our 2002 results were a \$400,000 charge related to in-process research and development, or IPR&D, expensed in connection with our February 2002 acquisition of BeAtHome.com, Inc., or BeAtHome, as well as \$344,000 of amortization expense related to intangible assets acquired from Arigo and BeAtHome. Although we remained profitable in 2003, our operating profit as computed under U.S. generally accepted accounting principles, or GAAP, decreased to \$278,000. Included in our 2003 GAAP results were a \$9.8 million IPR&D charge related to our April 2003 acquisition of certain assets of Metering Technology Corporation, or MTC, as well as \$1.1 million of amortization expense related to intangible assets acquired from Arigo, BeAtHome, and MTC. During 2004, our GAAP operating profit increased to \$3.7 million. Included in our 2004 GAAP results were \$580,000 of amortization expense related to intangible assets acquired from Arigo, BeAtHome, and MTC.

Our total revenues for 2004 declined to \$109.9 million from \$118.2 million in 2003. Total revenues in 2002 were \$122.8 million. Enel, our largest customer during 2004, 2003, and 2002, accounted for 58.3% of total revenues for 2004, 64.2% of total revenues for 2003, and 66.4% of total revenues for 2002. 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 14.4% of total revenues for 2004, 10.2% of total revenues for 2003, and 9.2% of total revenues for 2002.

We were incorporated in California in 1988 and reincorporated in Delaware in 1989. Our corporate headquarters are located at 550 Meridian Avenue, San Jose, California 95126. In March 2003, we received ISO 9001 certification at this facility. Our telephone number is 408-938-5200. Our common stock trades on the Nasdaq National Market under the symbol ELON.

Industry Background

Control systems manage key functions in a variety of applications. 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 myriad 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 traditionally seen limited use in

high-end residences for lighting control, security, and other automation applications, and in simple hobbyist-level automation systems.

Products for control systems are typically designed and manufactured by OEMs that focus on one or more vertical markets, 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.

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 affect responses based upon pre-programmed rules and logic. Traditionally, most control systems have incorporated proprietary, centrally controlled architectures. These systems share many of the same drawbacks of the proprietary centralized computing architectures of the early days of the computing industry that relied upon mainframes and minicomputers to communicate to “dumb” terminals that lacked independent processing capabilities. Just as the computing industry has moved from dumb terminals to “smart” networked-connected computers with improved reliability, greater scalability, and lower costs, we believe that control systems will move to control networks and reap similar benefits.

In the electric utilities metering industry in particular, the majority of the electricity meters deployed in the world today are “dumb” electro-mechanical meters. While so called solid-state, electronic meters have begun to grow in popularity, these meters typically do not include any communications capability or if they do, it is typically proprietary, one-way communication designed only to enable remote meter reading (also known as AMR). We believe that the relatively high cost and limited function of such systems has limited their adoption. We believe that as regulators look for utilities to offer consumers so called “real time pricing” or “demand response” programs and as markets deregulate and utilities look to lower their operating costs and improve their operating efficiency, utilities will begin to look for more flexible, two-way networked systems, such as our NES system, that allow them to offer a multitude of services to their customers and gain more insight and control over the operation of their distribution grid.

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 low cost, highly reliable and scalable control networks. Our LONWORKS control 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, 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 end-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 provides the foundation and support required to build and implement control networks using products from multiple vendors for the building, industrial, transportation, utility/home and other automation markets. With a control network that incorporates our products, control devices become smart and can communicate with one another and across the Internet. Each device in the control 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:

- connectivity components for use in Enel’s Contatore Elettronico project, including components for 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 costs, and associated development tools that allow OEMs to design LONWORKS technology into their products;
- network connectivity products, including intelligent LONWORKS routers that allow users to build large systems containing different networking media (e.g., twisted pairs of wire, RF, the existing power wiring, etc.), 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;

- software tools and toolkits that allow users to install, monitor, maintain and control their systems;
- an enterprise level software platform, Panoramix, which enables information from the control devices in multiple remote networks to be collected, aggregated, analyzed as a unified whole, and integrated into existing strategic business information technology systems, such as ERP, CRM, and custom applications; and
- our NES system, which is built upon our LONWORKS platform and consists of a set of intelligent, communicating digital electricity meters, data concentrators that supervise and manage meters, and server software based upon our Panoramix enterprise software platform.

Based on our past experience, we believe that our family of products and services provides the following benefits to OEM developers of control devices and networks:

- *Faster time to market.* We have invested significant effort to simplify and automate the development process so that OEMs using our products can very quickly create highly functional and reliable control networks. By building upon our control networking platform, OEMs focus their development efforts on adding the application functionality valued by their customers rather than on developing the “network plumbing.”
- *Lower development cost.* OEMs, as the designers of control systems, and in some instances, as developers of their own network protocols, can incur significant development and ongoing support expense to implement and maintain their proprietary systems. By building upon our standard platform, OEMs can avoid much of the cost associated with maintaining their own proprietary control networking infrastructure. Additionally, because our products enable a single control network to contain products from multiple manufacturers, OEMs can make a “make-versus-buy” decision to add functionality to their system by purchasing third-party devices rather than developing every device themselves.
- *Increased functionality, flexibility, scalability, and reliability.* Our products provide a feature-rich, robust, scalable control networking infrastructure beyond that typically found in in-house OEM developments or competing industry-centric solutions. In our experience, the completeness of our infrastructure enables our OEM customers to more easily build higher quality, more functional products than they otherwise would have been able to do.
- *Increased market opportunity.* Our products are designed to enable a single control network to contain products from multiple manufacturers. To our OEM customers this means that they can increase the functionality of their control networks without having to build every device in the system themselves. This can enable them to offer higher function or more customized systems to their customers without the time or expense of developing all the devices themselves.

Additionally, based on our past experience, we believe that control networks based on our technology bring a number of benefits to end users and systems integrators, including:

- *Installation Cost Savings.* Control networks based on our products are designed to be less expensive to install than proprietary, 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, our system is designed to eliminate the need for 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.* Control networks based on our products can eliminate many of the sources of high life-cycle costs found in traditional control systems. Our products are designed to enable a single control network to contain products from multiple manufacturers, which allows 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 in our control network architecture permits modifications to the control system to be made at a significantly lower cost. These modifications include adding new products, features, and functions. Our 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 control networks based on our products, end users may customize their control networks by using products and applications from an array of vendors that best suits their specific needs. In such a control network, any piece of information from any device can 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 a customer, 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 control network using our products, where intelligence can be distributed throughout the entire network, a system can be designed to eliminate any 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 our control networks 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 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, our products allow 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:

- *Increasing 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, industrial 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.
- *Capitalizing on Opportunities in the Utility Market.* Given both the importance of Enel 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 can create potential opportunities 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 “smart”, networked meters. 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 desire in other utilities to undertake similar wide-scale meter replacements. In May 2002, we formed a Service Provider Group to focus on opportunities in the utility market. Given the opportunities that we saw in this market, we began development of our NES system in early 2003. We shipped the first release of our NES product for use in trials in December 2003. We believe our NES system is a new and unique product offering for the utility market. Our NES system is 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 also allows utilities to reduce operating costs through load monitoring and optimization and better inventory management. Lastly, it sets 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.
- *Leveraging Our OEM and Systems Integrator Distribution Channels to Increase Our Market Presence.* Excluding Enel, and potentially other utilities, 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.

- *Taking 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 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 devices in control networks built on our technology. To meet this market demand, we are developing systems and technologies that combine standard data networking and communications protocols with our products and technology. For example, in October 2003, we released two new members of the *i.LON*[®] product family: the *i.LON* 10 Ethernet Adapter version 2.0 with PPP support and the *i.LON* 600 LONWORKS/IP Server. 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. 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 may reduce their overall costs and increase profitability.
- *Leveraging International Market Opportunities.* With sales and marketing operations in ten countries and 86.5% of our total revenues in 2003 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, networking hardware and software technology, custom communications integrated circuit design, and system level solutions for networks that provide device management, monitoring, and control.

Working Capital

As of December 31, 2004, we had working capital, defined as current assets less current liabilities, of \$173.4 million, which was an increase of approximately \$12.7 million compared to working capital of \$160.7 million as of December 31, 2003.

As of December 31, 2004, we had cash, cash equivalents, and short-term investments of \$160.4 million, which was an increase of approximately \$15.5 million compared to a balance of \$144.9 million as of December 31, 2003. Additionally, as of December 31, 2004, we had \$11.1 million of restricted investments that secure a \$10.0 million line of credit under which no amounts have been drawn.

Cash provided by operating activities in 2004 of \$13.3 million was generated primarily from net income of \$5.3 million, depreciation and amortization of \$4.9 million; and changes in our operating assets and liabilities of \$3.2 million.

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 our 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 through 2003. We expect volumes to decline significantly in 2005 as Enel completes the installation portion of its project. In July 2003, we entered into an agreement with Continuon Netbeheer, a leading Dutch utility grid operator and subsidiary of the Dutch utility Nuon, to provide a trial deployment of our NES system within a portion of Continuon’s service territory. In December 2003, we began the initial shipments of our NES system under the terms of that agreement. In addition,

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 our products 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 our control networks are widely accepted because they lower installed system cost, reduce ongoing life-cycle costs, and increase functionality. For example, the recently opened Roppongi Hills project in Tokyo, Japan, Asia's largest office and residential complex, included a major automation system with over 16,500 LONWORKS enabled devices. Our OEM customers in the building automation market include Honeywell, Invensys Intelligent Systems, Johnson Controls, Philips Lighting, Schindler Elevator, Siemens, TAC AB, and Yamatake.
- *Industrial Automation.* Control networks using our products 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, among other advantages, our control 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. For example, BOC Edwards, a leading supplier of vacuum pumping systems to the semiconductor industry, uses our products 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 & Wursth, and Yokagawa.
- *Transportation.* Our technology is used in important transportation applications, including railcars, light rail, buses, motor coaches, fire trucks, naval vessels, and aircraft. Our control 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, New York Air Brake, and Siemens.
- *Home Automation and Other.* While the home networking market for automation and control is still in its infancy, some companies are now selling control devices based on our products for appliances, HVAC, lighting, security, utility meters, and whole house automation. In June 2003, we announced a strategic alliance with Samsung Electronics whereby Samsung and its HOME VITA™ alliance partners will use our products in their home and consumer product lines. The HOME VITA alliance includes Samsung and Samsung-affiliated companies that are designing and implementing networked air conditioners, thermostats, A/V systems, hot water heaters, lighting devices, kitchen appliances, and other consumer products. 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. These products and services provide the infrastructure and support required to implement and deploy open, interoperable, control network solutions. 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.

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 meter kits to Enel's contract manufacturers, 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 Control 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 network nodes or small control networks. The NodeBuilder tool uses a familiar Windows based development environment with easy-to-use online help. Our FTT-10A free topology transceiver product, which permits communication over a twisted pair of wires, generated approximately 11.6% of our revenues during 2004 and 9.7% of our revenues during 2003.

Network Connectivity 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 that provide the physical communications path. 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 that 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 provides a variety of options for providing cost-effective, secure Internet connectivity to the everyday devices in control 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 LNS Turbo, which began shipping in December 2004.

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 for designing 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 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. Our current version, release 1.11, was released in March 2004.

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 an 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 shorten the time required for our customers to develop products that use our technology.

NES System. In December 2003, we began shipments of our NES system. We market the NES system directly to electric utilities, and indirectly through selected value added resellers and integration partners, all of whom are primarily located in Europe and Asia. The NES system is built upon our control network infrastructure products and consists of a set of intelligent, communicating digital electricity meters, data concentrators that supervise and manage meters, and server software based on our Panoramix enterprise software platform.

Sales and Marketing

We market and sell our products and services to OEMs and systems integrators to promote the widespread use of our control networking technology. In addition, we believe that awareness of the benefits of control networks based upon our products among end-users will increase the demand for our products. We currently market our NES system directly, and through selected value added resellers and integration partners, to electric utilities, primarily in Europe and Asia.

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, Hong Kong, 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 85.2% of our total revenues for 2004, 86.5% of our total revenues for 2003, and 88.2% of our total revenues for 2002.

We maintain an authorized network integrator program to increase the distribution of our products through systems integrators worldwide. These third-party 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® International, thereby reducing dependence on single-vendor products, eliminating the risks of centralized, proprietary 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 LonWorld® Conference and Exhibition assist our marketing efforts. We formed the LONMARK Interoperability Association in May 1994. As of December 31, 2004, it had about 300 members. In January 2004 the Association became an independent entity under the name LONMARK International. LonMark International 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 2004 in Shanghai, China.

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 expires, per its terms, in June 2005. 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 during 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. We obtain extensive product development input 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 developed 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. Our NES system consists of intelligent, communicating electricity meters, IP connected data concentrators, and server software based on our Panoramix enterprise software platform.

Our total expenses for product development were \$25.3 million for 2004, \$35.1 million for 2003, and \$21.5 million for 2002. Included in these amounts were acquisition related charges for in-process research and development and intangible amortization of \$580,000 in 2004, \$10.9 million in 2003, and \$744,000 in 2002. 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.

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 us. 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 proprietary control systems may enjoy a captive customer base dependent on such competitors for service, maintenance, upgrades and enhancements. Products from other companies such as Digi International, emWare, Ipsil, JumpTec, Lantronix, Microsoft, and Wind River Systems, as well as certain micro-controller manufacturers including Motorola, Micro Chip, and Philips, all of which promote directly connecting devices to the Internet, could also compete with our products. We also face competition from companies such as Chipcon, Dust Networks, Ember, Millennial Net, and Zensys and consortia such as the Zigbee Alliance focused on the use of radio frequency (RF) networking as an alternative to our control networking products.

In the utility marketplace, products from companies such as Actaris, DCSI, Elster, Hexagram, Hunt Technologies, Itron, Iskraemeco, Nexus, and Ramar, each of which offers automatic meter reading products for the utility industry, as well as metering systems from our customers such as Enel, Enermet, Horstmann Controls, Kamstrup, and Metrima, could compete with our NES system in the utility marketplace. For example, Enel, our largest customer, has designed a system that competes with our NES system using third party products instead of our products. Enel has significantly greater experience and financial, technical, and other resources than we have.

Many of our current and prospective competitors are dedicated to promoting 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 proprietary control systems, who enjoy a captive market for servicing and replacing equipment, to use our open, 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 Europe, which has numerous members and licensees. Other examples include various industry groups that promote alternative standards such as BACnet in the building market, DALI in the lighting controls market, Profibus and DeviceNet in the industrial control market, and Train Control Network (TCN) in the rail transportation market. 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.

While our product implementations are proprietary to Echelon and often protected by unique, patented implementations, LONWORKS technology is open, meaning that many of our basic control networking 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 who 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, custom configuration, 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 transceiver, with Cypress for production of our free topology transceiver, and with Cypress, On Semiconductor, and AMI Semiconductor for the production of certain components we sell to Enel and its designated contract manufacturers for use in Enel's Contatore Elettronico project.

For most of our products requiring assembly, we use contract electronic manufacturers including WKK Technology, Able Electronics, TYCO TEPC/Transpower, and Worldfair. 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, 2005, we had received 93 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, LonMaker, 3120, 3150, LNS, LonManager, Digital Home, and NodeBuilder. We have also registered some of our trademarks and logos in foreign countries.

Employees

As of February 28, 2005, we had 258 employees worldwide, of which 112 were in product development, 65 were in sales and marketing, 43 were in general and administrative, 27 were in operations, and 11 were in customer support and training. About 172 employees are located at our headquarters in California and 36 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 believe relations with our employees are good.

Where to Find More Information

We make our public filings with the Securities and Exchange Commission, or SEC, 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 SEC. These materials are located in the “Investors” portion of our Web site under the link “SEC Filings.” The inclusion of our Web site address in this Report does not include or incorporate by reference into this Report any information on our Web site. Copies of our public filings may also be obtained from the SEC Web site at www.sec.gov.

Executive Officers of the Registrant

M. Kenneth Oshman, age 64, 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 60, 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 55, 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 ITTEL 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.

Anders B. Axelsson, age 45, has been our Senior Vice President of Sales & Marketing since June 2003. Prior to joining our company, he was Chief Executive Officer of PowerFile, Inc. From 1999 to 2001, he was President/General Manager of Snap Appliances, Inc. Between 1992 and 1999, he worked for Measurex, which was later acquired by Honeywell, and served in several positions, including Vice President of Engineering and Marketing and President/Managing Director for Europe. Mr. Axelsson started his career with ABB in 1981 where he worked for 11 years in various sales, marketing, and engineering management positions. He holds a B.S. in Electrical Engineering from ED Technical Institute in Jonkpoing, Sweden and is a graduate of the Executive Program at the University of Michigan.

Kathleen Bloch, age 48, 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 49, 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 43, 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.

ITEM 2. PROPERTIES

We lease two buildings, each of which contains approximately 75,000 square feet of useable space, for our corporate headquarters in San Jose, California. We moved to this location in October 2001. The lease for the first building, which began in October 2001, requires minimum rental payments for ten years that total approximately \$20.6 million. The lease for the second building, which began in May 2003, also requires minimum rental payments for ten years that total approximately \$23.4 million.

In April 2003, in conjunction with our acquisition of certain assets of MTC, we entered into a sublease with MTC for a portion of their Scotts Valley, California facilities. This sublease expired on December 31, 2003.

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, and the United Kingdom and for some of our research and development employees in Livermore, California, Fargo, North Dakota, and Germany. The leases for these offices expire at various dates through 2013 and require minimum rental payments during that time that total approximately \$35.6 million. The aggregate rental expense for all leased office space was approximately \$5.3 million during 2004.

We believe that the facilities under lease by us will be adequate for at least the next 12 months. For additional information regarding our obligations under property leases, please see Note 5 of Notes to Consolidated Financial Statements included in Part IV of this Report.

ITEM 3. LEGAL PROCEEDINGS

On May 3, 2004, we announced that Enel filed a request for arbitration to resolve a dispute regarding our marketing and supply obligations under the Research and Development and Technological Cooperation Agreement dated June 28, 2000, the "R&D Agreement". The arbitration took place in London in early March 2005 under the rules of arbitration of the International Court of Arbitration of the International Chamber of Commerce, or ICC. We do not currently expect that the arbitration tribunal will deliver its decision before mid-May 2005. Enel filed the request with the ICC in Paris, France on April 28, 2004. Enel claims that the R&D Agreement obligates us to supply Enel with additional concentrator and metering kit products for use outside of Italy and to cooperate with Enel to market Enel's Contatore Elettronico system internationally. Enel is seeking to compel Echelon to sell to Enel an unspecified amount of additional products, to jointly market the Contatore Elettronico system with Enel outside of Italy, and to pay damages in the amount of Euro 42.65 million, or approximately \$56.5 million using the exchange rate as of February 28, 2005. We believe we have fulfilled our obligations under the R&D Agreement, including any obligation with respect to the sale of products and with respect to joint marketing. We believe that Enel's claims are without merit and are vigorously defending ourselves in the ongoing arbitration proceedings.

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, 2004.

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.

<u>Year Ended December 31, 2004</u>	<u>Price Range</u>	
	<u>High</u>	<u>Low</u>
Fourth quarter	\$11.25	6.96
Third quarter	11.50	6.04
Second quarter	12.09	9.81
First quarter	12.65	10.18

<u>Year Ended December 31, 2003</u>	<u>High</u>		<u>Low</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
Fourth quarter	\$15.33	10.15		
Third quarter	18.73	11.89		
Second quarter	15.00	10.35		
First quarter	14.26	9.15		

As of February 28, 2005, there were approximately 543 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

For information on our equity compensation plans, please refer to Note 7 to our accompanying consolidated financial statements.

Recent Sales of Unregistered Securities

There were no sales of unregistered securities during the fourth quarter of our fiscal year ended December 31, 2004.

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.

	<u>Year Ended December 31,</u>				
	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Consolidated Statement of Operations Data:					
(in thousands, except per share data)					
Net revenues:					
Product	\$108,947	\$117,153	\$121,454	\$ 74,777	\$ 47,261
Service	<u>974</u>	<u>1,000</u>	<u>1,380</u>	<u>1,812</u>	<u>2,038</u>
Total revenues	109,921	118,153	122,834	76,589	49,299
Cost of revenues:					
Cost of product	46,110	49,407	57,059	34,842	18,225
Cost of service	<u>2,003</u>	<u>2,650</u>	<u>2,880</u>	<u>2,347</u>	<u>2,017</u>
Total cost of revenues	<u>48,113</u>	<u>52,057</u>	<u>59,939</u>	<u>37,189</u>	<u>20,242</u>
Gross profit	<u>61,808</u>	<u>66,096</u>	<u>62,895</u>	<u>39,400</u>	<u>29,057</u>
Operating expenses:					
Product development	25,262	35,113	21,456	17,028	11,159
Sales and marketing	19,440	18,597	17,291	15,787	15,949
General and administrative	13,388	12,108	9,711	6,942	5,787
Non-recurring charge/(benefit)	--	--	--	--	(48)
Total operating expenses	<u>58,090</u>	<u>65,818</u>	<u>48,458</u>	<u>39,757</u>	<u>32,847</u>
Operating income/(loss)	3,718	278	14,437	(357)	(3,790)
Interest and other income, net	<u>2,140</u>	<u>2,219</u>	<u>3,777</u>	<u>6,655</u>	<u>4,019</u>
Income before provision for income taxes	5,858	2,497	18,214	6,298	229
Provision for income taxes	<u>586</u>	<u>600</u>	<u>1,457</u>	<u>252</u>	<u>145</u>
Net income	<u>\$ 5,272</u>	<u>\$ 1,897</u>	<u>\$16,757</u>	<u>\$ 6,046</u>	<u>\$ 84</u>
Income per share (1):					
Basic	<u>\$ 0.13</u>	<u>\$ 0.05</u>	<u>\$ 0.42</u>	<u>\$ 0.16</u>	<u>\$ 0.00</u>
Diluted	<u>\$ 0.13</u>	<u>\$ 0.05</u>	<u>\$ 0.41</u>	<u>\$ 0.15</u>	<u>\$ 0.00</u>
Shares used in per share calculation (1):					
Basic	<u>40,918</u>	<u>40,070</u>	<u>39,468</u>	<u>38,443</u>	<u>35,222</u>
Diluted	<u>41,007</u>	<u>40,792</u>	<u>40,726</u>	<u>41,141</u>	<u>39,734</u>
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	\$ 160,364	\$ 144,923	\$ 134,489	\$ 111,653	\$ 150,793
Working capital	173,391	160,745	156,319	151,748	164,377
Total assets	223,916	214,128	207,492	185,654	175,676
Total stockholders' equity	211,062	200,924	195,018	174,717	168,761

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

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 predictions, estimates, and other forward-looking statements that involve a number of risks and uncertainties about our business, including but not limited to: our belief that control networks based on our products can reduce life-cycle costs, save energy, are more flexible than centralized systems and permit control systems to be comprised of products and services from a variety of vendors; our belief that the NES system brings cost savings in a wide range of a utility's functions, from metering and customer services to distribution operations and value-added services; our belief that new products and product enhancements, such as our NES offering and Panoramix platform, will make it easier for our customers to aggregate and process information from remote LONWORKS networks, thereby increasing overall network management capabilities; our belief that the benefits derived from our NES system deliver a more compelling return on investment than "traditional" AMR systems; our belief that our Enel Project revenue will decline sharply in 2005 as compared to 2004 and our belief that we will be able to find one or more replacements for this Enel project revenue reduction; our belief that, in general, as long as the current worldwide economic recovery continues to gain momentum, overall revenues from our LONWORKS Infrastructure business will continue to improve during 2005 as compared to 2004; our expectation that our LONWORKS Infrastructure revenues from Europe will continue growing in 2005; our belief that market conditions in Asia, particularly Japan, will continue to be challenging in 2005; our belief that, during 2005, our gross margin will improve slightly from 2004 levels; our belief that, during 2005, our sales and marketing expenses will increase over 2004 levels; our belief that many of our customers will continue to refrain from purchasing our customer support and training offerings during 2005 in an effort to minimize their operating expenses; our belief that we have adequately provided for legal proceedings as of December 31, 2004; our belief that our existing cash and short-term investment balances will be sufficient to meet our projected working capital and other cash requirements for at least the next twelve months; our belief that we will incur a substantial loss in 2005; and our belief that the estimates and judgments made regarding future events in connection with the preparation of our financial statements are reasonable. These statements may be identified by the use of words such as "we believe," "expect," "anticipate," "intend," "plan," and similar expressions. In addition, forward-looking statements include, but are not limited to, statements about our beliefs, estimates, or plans about our ability to maintain low manufacturing and operating costs and costs per unit, our ability to estimate revenues, pricing pressures, returns, reserves, demand for our products, selling, general, and administrative expenses, taxes, research, development, and engineering expenses, spending on property, plant, and equipment, expected sales of our products and the market for our products generally and certain customers specifically, and our beliefs regarding our liquidity needs.

Forward-looking statements are estimates reflecting the best judgment of our senior management, and they involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. Our business is subject to a number of risks and uncertainties. While this discussion represents our current judgment on the future direction of our business, these risks and uncertainties could cause actual results to differ materially from any future performance suggested herein. Some of the important factors that may influence possible differences are continued competitive factors, technological developments, pricing pressures, changes in customer demand, and general economic conditions, as well as those discussed above in "Factors That May Affect Future Results of Operations." We undertake no obligation to update forward-looking statements to reflect events or circumstances occurring after the date of such statements. Readers should review the "Factors That May Affect Future Results of Operations," as well as other documents filed from time to time by us with the SEC.

OVERVIEW

Echelon Corporation was incorporated in California in February 1988 and reincorporated in Delaware in January 1989. We are based in San Jose, California, and maintain offices in nine foreign countries throughout Europe and Southeast Asia. We develop, market and support a wide array of products and services based on our LONWORKS technology that enable 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 sell certain of our products to Enel and certain suppliers of Enel for use in Enel's electricity meter management project in Italy known as the Contatore Elettronico. We refer to Echelon's revenue to Enel and Enel's suppliers as Enel Project revenue. We have been investing in products for use by electricity utilities for use in management of electricity distribution. We began to receive modest amounts of revenue resulting from these investments in 2004. We refer to this

revenue as networked energy services, or NES, revenue. We refer to all other revenue as LONWORKS Infrastructure revenue. We also provide a variety of technical training courses related to our products and the underlying technology. Some of our customers also rely on us to provide customer support on a per-incident or term contract basis.

Although we have achieved profitability for the last several years, we have a history of losses and expect to incur substantial operating losses again in 2005, due primarily to our expectation of a significant reduction in the amount of Enel Project revenue. Enel has stated that it intends to complete the installation of the Contatore Elettronico during 2005.

CRITICAL ACCOUNTING ESTIMATES

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 consolidated 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 revenues, allowance for doubtful accounts, inventories, commitments and contingencies, income taxes, and asset impairments. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of 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.

We believe the following critical accounting estimates relate to those policies that are most important to the presentation of our consolidated financial statements and require the most difficult, subjective and complex judgments.

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 located in the geographic markets that we serve. Sales to certain distributors are made under terms allowing limited rights of return. Sales to EBV, our largest distributor, accounted for 14.4% of total net revenues for 2004, 10.2% for 2003, and 9.2% for 2002. Worldwide sales to distributors, including those to EBV, accounted for approximately 19.8% of total net revenues for 2004, 14.6% for 2003, and 14.2% for 2002.

Net revenues consist of product and service revenues reduced by estimated sales returns and allowances. Provisions for estimated sales returns and allowances are recorded at the time of sale, and are based on management's estimates of potential future product returns related to product revenues in the current period. In evaluating the adequacy of our sales returns and other allowances, management analyzes historical returns, current and historical economic trends, contractual terms, and changes in customer demand and acceptance of our products.

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 revenues for any period if management revises its judgments or estimates.

Other than standard warranty repair work, Enel and its designated contract meter manufacturers do not have rights to return products we ship to them. However, our agreement with Enel contains an "acceptance" provision, whereby Enel is entitled to inspect products we ship to them to ensure the products conform, in all material respects, to the product's specifications. Once the product has been inspected and approved by Enel, or if the acceptance period lapses before Enel inspects or approves the products, the goods are considered accepted. Prior to shipping our products to Enel, we perform detailed reviews and tests to ensure the products will meet Enel's acceptance criteria. We do not ship products unless they have passed these reviews and tests. As a result, we record revenue for these products upon shipment to Enel. If Enel were to subsequently properly reject any material portion of a shipment for not meeting the agreed upon specifications, we would defer the revenue on that portion of the transaction until such time as Enel and we were able to resolve the discrepancy. Such a deferral could have a material impact on the amount and timing of our Enel related revenues.

We also provide for an allowance for sales discounts and rebates that we identify and reserve for at the time of sale. This reserve is primarily related to estimated future point of sale, or POS, credits to be issued to EBV. Under our arrangement with EBV, we have agreed to issue POS credits on sales they make to certain volume customers. We base

this estimate on EBV's historical and forecasted sales volumes to those customers. Significant management judgments and estimates must be made and used in connection with establishing these reserves for POS credits in any accounting period. Material differences may result in the amount and timing of our revenues for any period if management revises its judgments or estimates.

Our allowances for sales returns and other sales-related reserves were approximately \$1.6 million as of December 31, 2004, and \$1.4 million as of December 31, 2003.

Allowance for Doubtful Accounts. We typically sell our products and services to customers with net 30 day payment terms. In certain instances, payment terms may extend to as much as net 90 days. For a customer whose credit worthiness does not meet our minimum criteria, we may require partial or full payment prior to shipment. Alternatively, customers may be required to provide us with an irrevocable letter of credit prior to shipment.

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. These determinations are made based on several sources of information, including, but not limited to, a specific customer's payment history, recent discussions we have had with the customer, updated financial information for the customer, and publicly available news related to that customer. 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, the credit-worthiness of our overall customer base, changes in our customers' payment patterns, and our historical experience. If the financial condition of our customers were to deteriorate, or if general economic conditions worsened, additional allowances may be required in the future, which could materially impact our results of operations and financial condition. Our allowance for doubtful accounts was \$300,000 as of December 31, 2004, and \$500,000 as of December 31, 2003.

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 one year's forecasted demand, are not valued. In addition, we write off inventories that we consider obsolete. We consider a product to be obsolete when one of several factors exists. These factors include, but are not limited to, our decision to discontinue selling an existing product, the product has been re-designed and we are unable to rework our existing inventory to update it to the new version, or our competitors introduce new products that make our products obsolete. We adjust remaining inventory balances to approximate the lower of our 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.

Warranty Reserves. We evaluate our reserve for warranty costs based on a combination of factors. In circumstances where we are aware of a specific warranty related problem, for example a product recall, we reserve an estimate of the total out-of-pocket costs we expect to incur to resolve the problem, including, but not limited to, costs to replace or repair the defective items and shipping costs. When evaluating the need for any additional 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 warranty-related return rates, historical costs of repair, and knowledge of new products introduced. If any of these factors were to change materially in the future, we may be required to increase our warranty reserve, which could have a material negative impact on our results of operations and our financial condition. Our reserve for warranty costs was \$148,000 as of December 31, 2004, and \$205,000 as of December 31, 2003.

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 our historical net operating losses, and the uncertainty of our future operating results, we have recorded a valuation allowance that fully reserves 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, we would then need to reverse some or all of the previously provided valuation allowance. Our deferred tax asset valuation allowance was \$45.6 million as of December 31, 2004 and \$47.8 million as of December 31, 2003.

Valuation of Goodwill and Other Intangible Assets. We assess the impairment of goodwill and identifiable intangible assets on an annual basis and 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 \$8.4 million as of December 31, 2004.

When we adopted SFAS 142 in 2002, we ceased amortizing goodwill, which had a net unamortized balance of \$1.7 million as of December 31, 2001. Since then, primarily as a result of acquisitions in 2002 and 2003, the net balance of goodwill has grown to \$8.3 million as of December 31, 2004. During 2003 and 2004, net goodwill increased by \$586,000 due to foreign currency translation gains. For a reconciliation of this increase, please refer to Note 4 to our accompanying consolidated financial statements. We review goodwill for impairment annually during the quarter ending March 31. If, as a result of an annual or any other impairment review that we perform 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. Such a charge could have a material adverse impact on our financial position and/or operating results.

RESULTS OF OPERATIONS

The following table reflects the percentage of total revenues represented by each item in our Consolidated Statements of Operations for the twelve months ended December 31, 2004, 2003, and 2002:

	Twelve Months Ended December 31,		
	2004	2003	2002
Revenues:			
Product.....	99.1%	99.2%	98.9%
Service	0.9	0.8	1.1
Total revenues.....	100.0	100.0	100.0
Cost of revenues:			
Cost of product	42.0	41.8	46.5
Cost of service	1.8	2.3	2.3
Total cost of revenues	43.8	44.1	48.8
Gross profit	56.2	55.9	51.2
Operating expenses:			
Product development	23.0	29.7	17.5
Sales and marketing	17.6	15.7	14.1
General and administrative	12.2	10.3	7.9
Total operating expenses	52.8	55.7	39.5
Income from operations	3.4	0.2	11.7
Interest and other income, net.....	1.9	1.9	3.1
Income before provision for income taxes.....	5.3	2.1	14.8
Provision for income taxes	0.5	0.5	1.2
Net income.....	4.8%	1.6%	13.6%

Revenues

Total Revenues

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
Total revenues.....	\$109,921	\$118,153	\$122,834	(\$8,232)	(\$4,681)	(7.0%)	(3.8%)

The \$8.2 million decrease in 2004 as compared to 2003 was primarily the result of a \$11.7 million reduction in Enel Project related revenues partially offset by a \$3.4 million increase in LONWORKS Infrastructure revenue (see further discussion below). The \$4.7 million decrease in 2003 as compared to 2002 was primarily the result of a \$5.7 million reduction in Enel Project related revenues partially offset by a \$1.0 million increase in LONWORKS Infrastructure revenue (see further discussion below).

Product revenues

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	2003	2002	2003	2002
				<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
Product revenues	\$108,947	\$117,153	\$121,454	(\$8,206)	(\$4,301)	(7.0%)	(3.5%)

The decrease in product revenues between 2004 and 2003 was attributable to the \$11.7 million decrease in Enel program revenues partially offset by a \$3.4 million increase in LONWORKS Infrastructure product revenues (see further discussion below). The decrease in product revenues between 2003 and 2002 was attributable to the \$5.7 million decrease in Enel program revenues partially offset by a \$1.4 million increase in LONWORKS Infrastructure product revenues (see further discussion below).

Enel Project revenues

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	2003	2002	2003	2002
				<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
Enel Project revenues	\$64,119	\$75,827	\$81,550	(\$11,708)	(\$5,723)	(15.4%)	(7.0%)

Revenues from the Enel Project will typically fluctuate from quarter to quarter, and from year to year, for several reasons, many of which are described in more detail later in this discussion in the section entitled “Factors That May Affect Future Results of Operations.” The \$11.7 million decrease in Enel Project revenues in 2004 as compared to 2003 was primarily attributable to reduced average selling prices for electricity meter components (also referred to as metering kit products). Under the terms of our agreement with Enel, prices for the products we sell them are reduced based on the cumulative number of units shipped. In addition, a reduction in the unit volumes of data concentrator products shipped to Enel during 2004 also contributed to the revenue decline. Partially offsetting these factors was an increase in the overall number of metering kit products shipped during 2004. The \$5.7 million decrease in Enel Project revenues in 2003 as compared to 2002 was primarily attributable to reduced average selling prices for metering kit products, partially offset by increased unit volumes of both metering kit and data concentrator products. We sell our products to Enel and its designated manufacturers in United States dollars. Therefore, the associated revenues are not subject to foreign currency risks.

Enel has stated that it intends to complete the installation of the Contatore Elettronico during 2005. If Enel continues to deploy its Contatore Elettronico project in accordance with its scheduled rollout plan, we expect that revenues from the Enel project will decline by roughly \$44 million in 2005 to approximately \$20 million, or 25% of our total revenues for 2005.

From time to time, we have interpreted the contracts between our companies differently from Enel, which has led to disagreements. For example, as a result of a dispute regarding the compensation owed to us for the transition from the second version of metering kit to the third generation of metering kit, which dispute has since been resolved, we deferred approximately \$2.7 million of revenue from the second quarter to the third quarter of 2003. More recently, in May 2004, we announced that Enel filed a request for arbitration to resolve a dispute regarding our marketing and supply obligations under the R&D Agreement. Under the arbitration request, Enel is seeking to compel our company to sell to Enel an unspecified amount of additional products, to jointly market the Contatore Elettronico system with Enel outside of Italy, and to pay damages of approximately Euro 42.65 million. If this arbitration or any future dispute is not resolved in our favor, or in a timely manner, we could be required to pay significant damages, or the Enel Project, or Enel Project revenue, could be delayed, could become less profitable to us, could result in losses, or either we or Enel could seek to terminate the R&D Agreement. Once the project is completed, or if it were 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 and results of operations.

Given our historical dependence on one customer, we continue to seek opportunities to expand our customer base. In 2002, we formed a new sales and marketing organization that has since been tasked with identifying other customers for our NES system products. However, we can give no assurance that our efforts in the networked energy services area will be successful. To date, revenues generated from sales of our NES system products have been immaterial.

LONWORKS Infrastructure revenues

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	2003	2002	2003	2002
				<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
LONWORKS Infrastructure revenues	\$45,717	\$42,326	\$41,284	\$3,391	\$1,042	8.0%	2.5%

Our LONWORKS Infrastructure revenues are primarily comprised of sales of our hardware and software products, and to a lesser extent, revenues we generate from our customer support and training offerings. The increase in LONWORKS Infrastructure revenue in 2004 as compared to 2003 was driven primarily by improved economic conditions in Europe, where 2004 revenues increased by approximately \$3.5 million, or 19%, over 2003 amounts. In our North American market, 2004 revenues increased by approximately \$218,000, or just over 1%, from 2003 levels. Offsetting these increases was a year-over-year decrease in our Asian markets of approximately \$312,000, or just over 4%. This decrease in our Asian markets is primarily attributable to Japan, where market conditions have continued to deteriorate over the last several years. We believe this reduction in revenues from our Japanese market is the result of reduced building construction activities in Japan. Partially offsetting this decrease was the favorable impact of exchange rates on sales made in Japanese Yen, which reduced the year-over-year decline by approximately \$197,000.

We believe that, in general, as long as the current worldwide economic recovery continues to gain momentum, overall revenues from our LONWORKS Infrastructure business will continue to improve during 2005 as compared to 2004. However, within any given region, revenue growth may fluctuate up or down. For example, while we currently expect LONWORKS Infrastructure revenues from Europe to continue growing in 2005, we also believe that market conditions in Asia, particularly Japan, will continue to be a challenge.

In addition, the expected improvement in 2005 LONWORKS Infrastructure revenues will also be subject to further fluctuations in the exchange rates between the United States dollar and the Japanese Yen. In general, if the dollar were to strengthen against the Yen, our revenues would decrease. Conversely, if the dollar were to weaken against the Yen, our revenues would increase. The extent of this exchange rate fluctuation increase or decrease will depend on the amount of sales conducted in Japanese Yen (or other foreign currencies) and the magnitude of the exchange rate fluctuation from year to year. The portion of our revenues conducted in currencies other than the United States dollar, principally the Japanese Yen, was about 3.2% in 2004, 3.8% in 2003, and 4.8% in 2002. We do not currently expect that, during 2005, the amount of our revenues conducted in these foreign currencies will fluctuate significantly from prior year levels. Given the historical and expected future level of sales made in foreign currencies, we do not currently plan to hedge against these currency rate fluctuations. However, if the portion of our revenues conducted in foreign currencies were to grow significantly, we would re-evaluate these exposures and, if necessary, enter into hedging arrangements to help minimize these risks.

The increase in LONWORKS Infrastructure revenue in 2003 as compared to 2002 was driven by a combination of factors. Approximately \$600,000 of the increase was attributable to improved economic conditions in North America and Europe, partially offset by continued weakness in our markets in Asia. We believe our LONWORKS Infrastructure revenues in Asia suffered during 2003 because of continued economic weakness, and in particular, the economic effects of Severe Acute Respiratory Syndrome, or SARS, during the first half of the year. In addition, the impact of exchange rates on sales made in foreign currencies, principally the Japanese Yen, contributed approximately \$400,000 to the year-over-year increase.

EBV revenues

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	2003	2002	2003	2002
				<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
EBV revenues	\$15,875	\$12,059	\$11,338	\$3,816	\$721	31.6%	6.4%

We believe the \$3.8 million increase in 2004 as compared to 2003, and the \$721,000 increase in 2003 as compared to 2002, is primarily the result of improved economic conditions in Europe and other geographic areas where EBV serves its customers. Our contract with EBV, which has been in effect since 1997 and has been renewed annually thereafter, expires in December 2005. If our agreement with EBV is not renewed, or is renewed on terms that are less favorable to us, our revenues could decrease and our future financial position could be harmed. We currently sell our products to EBV in United States dollars. Therefore, the associated revenues are not subject to foreign currency exchange rate risks. However, EBV has the right, on notice to our company, to require that we sell our products to them in Euros.

Service revenues

(Dollars in thousands)	Years Ended December 31,			2004 over	2003 over	2004 over	2003 over
	2004	2003	2002	2003	2002	2003	2002
				\$ Change	\$ Change	% Change	% Change
Service revenues	\$974	\$1,000	\$1,380	(\$26)	(\$380)	(2.6%)	(27.5%)

The decrease in service revenues in both 2004 and 2003 was the result of continued decreases in our customers' use of our support and training services. We believe that the worldwide economic recession, which began in 2002 and continued through part of 2003, forced many of our customers to curtail spending for training and support. Although worldwide economic conditions improved during the latter part of 2003 and continued in 2004, and look promising for 2005, we do not expect our service revenues to increase over 2003 levels. In fact, we believe that many of our customers will continue to refrain from purchasing our customer support and training offerings during 2005 in an effort to minimize their operating expenses.

Gross Profit and Gross Margin

(Dollars in thousands)	Years Ended December 31,			2004 over	2003 over	2004 over	2003 over
	2004	2003	2002	2003	2002	2003	2002
				\$ Change	\$ Change	% Change	% Change
Gross Profit	\$61,808	\$66,096	\$62,895	(\$4,288)	\$3,201	(6.5%)	5.1%
Gross Margin	56.2%	55.9%	51.2%	--	--	0.3	4.7

Gross profit is equal to revenues less cost of goods sold. Cost of goods sold for product revenues includes direct costs associated with the purchase of components, subassemblies, and finished goods, as well as indirect costs such as allocated labor and overhead; costs associated with the packaging, preparation, and shipment of products; and charges related to warranty and excess and obsolete inventory reserves. Cost of goods sold for service revenues consists of employee-related costs such as salaries and fringe benefits as well as other direct costs incurred in providing training, customer support, and custom software development services. Gross margin is equal to gross profit divided by revenues.

Overall, gross margin during 2004 as compared to 2003 remained relatively consistent. We expect that, during 2005, gross margin will improve slightly from 2004 levels. We expect this slight increase to occur due to the fact that we expect product revenues from the Enel program to decrease during 2005, which generally yield a lower gross margin than do revenues from our LONWORKS Infrastructure products.

The 4.7 percentage point improvement in gross margin during 2003 as compared to 2002 was due primarily to the recognition of approximately \$3.0 million of Enel program related revenue in 2003 with no corresponding cost of goods sold. This \$3.0 million is attributable to a surcharge Enel agreed to pay us for continuing to ship a former version of the metering kit to Enel's meter manufacturers. Without this \$3.0 million surcharge, 2003 gross margin would have been 53.4%, a 2.2% improvement over 2002 levels. The primary factors contributing to this 2.2% improvement were: one-time reductions in the price we pay our contract manufacturers and other suppliers for products we purchase from them for sale to our customers, a change in the mix of products sold, favorable manufacturing variances, and reductions in certain cost-of-sales related charges (primarily provisions for excess and obsolete inventory). Offsetting these favorable factors was the decrease in the average selling price for metering kit products sold under the Enel Program (as discussed under Enel Project revenues above).

Operating Expenses

Product development

(Dollars in thousands)	Years Ended December 31,			2004 over	2003 over	2004 over	2003 over
	2004	2003	2002	2003	2002	2003	2002
				\$ Change	\$ Change	% Change	% Change
Product development.....	\$25,262	\$35,113	\$21,456	(\$9,851)	\$13,657	(28.1%)	63.7%

Product development expenses consist primarily of payroll and related expenses for development personnel, facility costs, amounts paid to third party service providers, depreciation and amortization, expensed material, and other costs associated with the development of new technologies and products.

The decrease in product development expenses during 2004 as compared to 2003 was due primarily to the \$9.8 million in-process research and development charge taken in conjunction with the Metering Technology Corporation, or MTC, asset acquisition transaction that occurred during the second quarter of 2003. There was no similar charge taken during 2004. We expect that, during 2005, product development expenses will remain at or slightly above 2004 levels.

The increase in product development expenses during 2003 as compared to 2002 was due to MTC transaction. During 2003, total product development costs associated with the MTC transaction and ongoing operations amounted to \$13.8 million, and consisted of a one-time \$9.8 million charge related to in-process research and development taken in the second quarter of 2003, \$3.3 million of ongoing day-to-day operating expenses (primarily payroll and facilities costs for the nineteen former MTC employees who joined our company), and \$718,000 of amortization expense for purchased technology. For additional information relating to this transaction, please refer to Note 3 in the Notes to Condensed Consolidated Financial Statements as well as to the "Acquisitions" section later in this Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*.

Sales and marketing

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	2003	2002	2003	2002
				<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
Sales and marketing	\$19,440	\$18,597	\$17,291	\$843	\$1,306	4.5%	7.6%

Sales and marketing expenses consist primarily of payroll and related expenses for sales and marketing personnel, including commissions to sales personnel, travel and entertainment, facilities costs, advertising and product promotion, and other costs associated with our sales and support offices.

Of the \$843,000 increase in sales and marketing expenses during 2004 as compared to 2003, approximately \$535,000 was related to the impact of foreign currency exchange rate fluctuations between the United States dollar and the local currency in several of the foreign countries in which we operate. Other factors contributing to the year-over-year increase were increases in salary and other compensation related expenses, travel and entertainment costs, advertising and product promotion charges, and costs for third-party service providers, offset by reductions in various allocated costs such as facilities rent and information technology support.

We expect that, during 2005, our sales and marketing expenses will increase over 2004 levels. We believe that this increase will be attributable to increases in sales incentive compensation plans as well as the continued weakness of the United States dollar. If, however, the United States dollar were to strengthen against the foreign currencies where we do business, our sales and marketing expenses could decrease slightly. Conversely, if the dollar were to weaken further against these currencies, our expenses would rise.

Approximately \$845,000 of the \$1.3 million increase in 2003 as compared to 2002 was due to the impact of foreign currency exchange rate fluctuations between the United States dollar and the local currency in several of the foreign countries in which we operate. Other factors contributing to the year-over-year increase were increased salary and other compensation related expenses, increased costs for third-party service providers, and recruiting expenses, offset by reductions in advertising and product promotion costs and travel and entertainment expenses.

General and administrative

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	2003	2002	2003	2002
				<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
General and administrative.....	\$13,388	\$12,108	\$9,711	\$1,280	\$2,397	10.6%	24.7%

General and administrative expenses consist primarily of payroll and related expenses for executive, accounting and administrative personnel, professional fees for legal and accounting services rendered to the company, facility costs, insurance, and other general corporate expenses.

Of the \$1.3 million increase in general and administrative expenses in 2004 as compared to 2003, approximately \$760,000 is attributable to increased costs paid to third party service providers, primarily our attorneys and independent auditors. This \$760,000 increase is the result of increased legal fees associated with our ongoing arbitration proceedings with Enel, as well as increased fees paid to our independent auditors and various consultants in conjunction with our Sarbanes-Oxley compliance efforts. Another factor contributing to the year-over-year increase were increased costs associated with our second new building at our corporate headquarters facility in San Jose. In May 2003, we began paying rent and amortizing certain leasehold improvements related to this new building. The increase in 2004 is primarily attributable a full year's worth of these expenses versus eight months in 2003. Additionally, we experienced increases in certain of our insurance premiums, primarily our director's and officer's insurance, during 2004. Offsetting these increases was a decrease in salaries and other compensation related costs primarily attributable to a reduction in the bonuses earned by our executive management. We expect that, during 2005, general and administrative costs will remain at or slightly above 2004 levels.

Of the \$2.4 million increase in 2003 as compared to 2002, \$1.9 million was related to rent, depreciation, and other expenses attributable to our second new building at our corporate headquarters facility in San Jose. Excluding the costs associated with the new building, general and administrative expenses were approximately \$508,000 higher in 2003 than in 2002. This \$508,000 increase related primarily to increases in salaries and other compensation related costs, business insurance costs, director expenses, and professional fees paid to external service providers.

Interest and Other Income, Net

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
Interest and other income, net	\$2,140	\$2,219	\$3,777	(\$79)	(\$1,558)	(3.6%)	(41.2%)

Interest and other income, net primarily reflects interest earned by our company on cash and short-term investment balances as well as foreign exchange translation gains and losses related to short-term intercompany balances.

Although the average amount of our invested cash increased during 2004 as compared to 2003, the impact of short-term interest rate reductions, which began in late 2001 and continued through 2003, have had a negative impact on our interest income. As short-term investments we purchased in 2002 and 2003 come to maturity, we have been forced to re-invest these funds in instruments with lower effective yields, thus reducing interest income.

In addition to interest income, fluctuations in exchange rates between the U.S. dollar and the local currencies in several of the foreign countries in which we operate, including the Euro and the Pound Sterling, also have an impact on interest and other income, net. In accordance with SFAS No. 52, *Foreign Currency Translation*, we account for foreign currency translation gains and losses associated with our short-term intercompany balances by reflecting these amounts as either other income or loss in our consolidated statements of operations. During periods when the U.S. dollar strengthens in value against these foreign currencies, the associated translation gains favorably impact other income. Conversely, when the U.S. dollar weakens, the resulting translation losses negatively impact other income.

Although interest rates have increased modestly over the last several months, they remain at historically low levels. As long as interest rates remain low, we expect that our interest income will remain low as compared to prior years. In addition, future fluctuations in the exchange rates between the United States dollar and the currencies in which we maintain our short-term intercompany balances (principally the European Euro and the British Pound Sterling) will also affect our interest and other income, net.

As with 2004, the reduction in interest income during 2003 as compared to 2002 was due to the impact of short-term interest rate reductions, which began in late 2001 and continued through 2002.

Provision for Income Taxes

<i>(Dollars in thousands)</i>	<u>Years Ended December 31,</u>			2004 over	2003 over	2004 over	2003 over
	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>\$ Change</u>	<u>\$ Change</u>	<u>% Change</u>	<u>% Change</u>
Provision for income taxes	\$586	\$600	\$1,457	(\$14)	(\$857)	(2.3%)	(58.8%)

The provision for income taxes for 2004 includes a provision for federal, state and foreign taxes based on our annual estimated effective tax rate for the year. The difference between the statutory rate and our effective tax rate is primarily due to the impact of foreign taxes and the beneficial impact of deferred taxes resulting from the utilization of net operating losses. Income taxes of \$586,000 in 2004 and \$600,000 in 2003 primarily consist of taxes related to profitable foreign subsidiaries, federal alternative minimum taxes, and various state minimum and regular income taxes.

Although we expect to generate a loss before provision for income taxes in 2005, we will be required to book income tax expense to cover, at a minimum, the foreign taxes owed on income generated by our profitable foreign subsidiaries. We expect this 2005 provision for income taxes to be at or slightly below the amounts provided for in 2003 and 2004.

The 2002 provision for income taxes of \$1.5 million relates to various state and foreign taxes. We did not provide for any federal taxes in 2002 due to the utilization of our net operating loss carryforwards and the relief provided by the 2002 Tax Act on alternative minimum taxes.

OFF-BALANCE-SHEET ARRANGEMENTS AND OTHER CONTRACTUAL OBLIGATIONS

Off-Balance-Sheet Arrangements. We have not entered into any transactions with unconsolidated entities whereby we have financial guarantees, subordinated retained interests, derivative instruments, or other contingent arrangements that expose Echelon to material continuing risks, contingent liabilities, or any other obligation under a variable interest in an unconsolidated entity that provides financing, liquidity, market risk, or credit risk support to us.

Operating Lease Commitments. We lease our present corporate headquarters facility in San Jose, California, under two non-cancelable operating leases. The first lease agreement expires in 2011 and the second lease agreement expires in 2013. Upon expiration, both lease agreements provide for extensions of up to ten years. As part of these lease transactions, we provided the lessor security deposits in the form of two standby letters of credit totaling \$8.0 million. These letters of credit are secured with a cash deposit at the bank that issued the letters of credit. The cash on deposit is restricted as to withdrawal and is managed by a third party subject to certain limitations under our investment policy.

In addition to our corporate headquarters facility, we also lease facilities for our sales, marketing, and product development personnel located elsewhere within the United States and in nine foreign countries throughout Europe and Asia. These operating leases are of shorter duration, generally one to two years, and in some instances are cancelable with advance notice.

Purchase Commitments. We utilize several contract manufacturers who manufacture and test our products requiring assembly. These contract manufacturers acquire components and build product based on demand information supplied by us in the form of purchase orders and demand forecasts. These purchase orders and demand forecasts generally cover periods that range from one to six months, and in some cases, up to one year. We also obtain individual components for our products from a wide variety of individual suppliers. We generally acquire these components through the issuance of purchase orders, and in some cases through demand forecasts, both of which cover periods ranging from one to six months.

Indemnifications. In the normal course of business, we provide indemnifications of varying scope to customers against claims of intellectual property infringement made by third parties arising from the use of our products. Historically, costs related to these indemnification provisions have not been significant. However, we are unable to estimate the maximum potential impact of these indemnification provisions on our future results of operations.

As permitted under Delaware law, we have agreements whereby we indemnify our officers and directors for certain events or occurrences while the officer or director is, or was serving, at our request in such capacity. The indemnification period covers all pertinent events and occurrences during the officer's or director's lifetime. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited; however, we have director and officer insurance coverage that would enable us to recover a portion of any future amounts paid. We believe the estimated fair value of these indemnification agreements in excess of the applicable insurance coverage is minimal.

Royalties. We have certain royalty commitments associated with the shipment and licensing of certain products. Royalty expense is generally based on a dollar amount per unit shipped or a percentage of the underlying revenue. Royalty expense, which was recorded under our cost of products revenue on our consolidated statements of income, was approximately \$503,000 during 2004, \$613,000 during 2003, and \$568,000 during 2002.

We will continue to be obligated for royalty payments in the future associated with the shipment and licensing of certain of our products. While we are currently unable to estimate the maximum amount of these future royalties, such amounts will continue to be dependent on the number of units shipped or the amount of revenue generated from these products.

Legal Actions. On May 3, 2004, we announced that Enel filed a request for arbitration to resolve a dispute regarding our marketing and supply obligations under the Research and Development and Technological Cooperation Agreement dated June 28, 2000, the "R&D Agreement". The arbitration took place in London in early March 2005 under the rules of arbitration of the International Court of Arbitration of the International Chamber of Commerce, or ICC. We do not currently expect that the arbitration tribunal will deliver its decision before mid-May 2005. Enel filed the request with the ICC in Paris, France on April 28, 2004. Enel claims that the R&D Agreement obligates us to supply Enel with additional concentrator and metering kit products for use outside of Italy and to cooperate with Enel to market Enel's Contatore Elettronico system internationally. Enel is seeking to compel Echelon to sell to Enel an unspecified amount of additional products, to jointly market the Contatore Elettronico system with Enel outside of Italy, and to pay damages in the amount of Euro 42.65 million, or approximately \$56.5 million using the exchange rate as of February 28, 2005. We believe we have fulfilled our obligations under the R&D Agreement, including any obligation with respect to the sale of products and with respect to joint marketing. We believe that Enel's claims are without merit and are vigorously

defending ourselves in the ongoing arbitration proceedings. As of December 31, 2004, no amounts have been accrued in relation to the damages sought by Enel. However, if the arbitration ultimately results in a judgment against us, and Enel is awarded some or all of its requested damages, such award would have a material negative impact on our results of operations, cash flows, and financial position.

In addition to the matter described above, from time to time, in the ordinary course of business, we are also subject to legal proceedings, claims, investigations, and other proceedings, including claims of alleged infringement of third-party patents and other intellectual property rights, and commercial, employment, and other matters. In accordance with generally accepted accounting principles, we make a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. These provisions are reviewed at least quarterly and adjusted to reflect the impacts of negotiations, settlements, rulings, advice of legal counsel, and other information and events pertaining to a particular case. While we believe we have adequately provided for such contingencies as of December 31, 2004, it is possible that our results of operations, cash flows, and financial position could be harmed by the resolution of any such outstanding claims.

As of December 31, 2004, our contractual obligations were as follows (in thousands):

	<u>Payments due by period</u>				
	<u>Total</u>	<u>Less than 1 year</u>	<u>1-3 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Operating leases	\$ 35,919	\$ 4,975	\$ 9,545	\$ 9,175	\$ 12,224
Purchase commitments.....	<u>10,621</u>	<u>10,621</u>	--	--	--
Total	<u>\$46,540</u>	<u>\$15,596</u>	<u>\$ 9,545</u>	<u>\$ 9,175</u>	<u>\$12,224</u>

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, although recently we have also been able to finance our operations through operating cash flow. From inception through December 31, 2004, we raised \$277.9 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 the 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 authorized 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. In September 2001, we repurchased 265,000 shares under the program at a cost of \$3.2 million. No additional repurchases were made subsequent to September 2001. The stock repurchase program expired in September 2003.

In March and August 2004, our Board of Directors approved a second stock repurchase program, which authorizes us to repurchase up to 3.0 million shares of our common stock, in accordance with Rule 10b-18 and other applicable laws, rules and regulations. During the fourth quarter of 2004, we repurchased a total of 24,984 shares under the program at a cost of \$176,000. As of December 31, 2004, 2,975,016 shares are available for repurchase. The stock repurchase program will expire in March 2006.

The following table presents selected financial information for each of the last three fiscal years (dollars in thousands):

	2004	2003	2002
Cash, cash equivalents, and short-term investments	\$160,364	\$144,923	\$134,489
Trade accounts receivable, net.....	17,261	20,110	22,930
Working capital	173,391	160,745	156,320
Stockholder's equity.....	211,062	200,924	195,018

As of December 31, 2004, we had \$160.4 million in cash, cash equivalents, and short-term investments, an increase of \$15.4 million as compared to December 31, 2003. Over the last three years, our primary source of cash has been receipts from revenue, and to a lesser extent, proceeds from the exercise of stock options and warrants by our employees and directors. Our primary uses of cash have been cost of product revenue, payroll (salaries, commissions, bonuses, and benefits), general operating expenses (costs associated with our offices such as rent, utilities, and maintenance; fees paid to third party service providers such as consultants, accountants, and attorneys; travel and entertainment; equipment and supplies; advertising; and other miscellaneous expenses), acquisitions, capital expenditures, and purchases under our stock repurchase program.

Net cash provided by operating activities. Net cash provided by operating activities has historically been driven by net income levels, adjustments for non-cash charges such as depreciation, amortization, and in-process research and development charges, and fluctuations in operating asset and liability balances. Net cash provided by operating activities was \$13.3 million for 2004, a \$10.3 million decrease from 2003. During 2004, net cash provided by operating activities was generated primarily from net income of \$5.3 million; depreciation and amortization of \$4.9 million; and changes in our operating assets and liabilities of \$3.2 million. Cash provided by operating activities in 2003 of \$23.7 million was generated primarily from the \$9.8 million in-process research and development charge taken in relation to the MTC transaction in the second quarter; changes in our operating assets and liabilities of \$6.3 million; \$5.6 million of depreciation and amortization; and net income of \$1.9 million. Cash provided by operating activities in 2002 of \$38.7 million was primarily due to changes in our operating assets and liabilities of \$17.4 million, net income for the year of \$16.8 million, and \$4.1 million of depreciation and amortization.

Net cash used in investing activities. Net cash used for investing activities has historically been driven by transactions involving our short-term investment portfolio, capital expenditures, changes in our long-term assets, and acquisitions. Net cash used in investing activities was \$1.9 million for 2004, a \$42.4 million decrease over 2003. During 2004, net cash used in investing activities was primarily the result of capital expenditures of \$2.2 million. Net cash used in investing activities in 2003 of \$44.4 million was primarily the result of purchases of available-for-sale short-term investments, our \$11.0 million purchase of certain assets of MTC, and capital expenditures of \$6.5 million, offset by proceeds from sales and maturities of available-for-sale short-term investments and a \$576,000 reduction in long-term assets. 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, and capital expenditures, offset by the proceeds from sales and maturities of available-for-sale investments.

Net cash provided by financing activities. Net cash provided by financing activities has historically been driven by the proceeds from issuance of common and preferred stock offset by transactions under our stock repurchase program. Net cash provided by financing activities was \$5.0 million for 2004, a \$1.5 million increase from 2003. During 2004, net cash provided by financing activities was comprised of proceeds from the exercise of stock options by employees, offset by \$176,000 related to open-market purchases of our common stock under our stock repurchase program. Net cash provided by financing activities in 2003 of \$3.4 million was comprised of proceeds from the exercise of stock options by employees. Net cash provided by financing activities in 2002 of \$3.1 million was comprised of proceeds from the exercise of stock options by employees and, to a lesser extent, by the proceeds from the exercise of stock warrants by some of our warrant holders who are also directors of our company.

We use highly regarded investment management firms to manage our invested cash. Our portfolio of investments managed by these investment managers is primarily composed of highly rated United States corporate obligations, United States government securities, and to a lesser extent, money market funds. All investments are made according to guidelines and within compliance of policies approved by our Board of Directors.

We expect that cash requirements for our payroll and other operating costs will continue at or slightly above existing levels. We also expect that we will continue to acquire capital assets such as computer systems and related software, office and manufacturing equipment, furniture and fixtures, and leasehold improvements, as the need for these

items arises. Furthermore, our cash reserves may be used to strategically acquire other companies, products, or technologies that are complementary to our business.

Our existing cash, cash equivalents, and investment balances will likely decline during 2005 as a result of our anticipated operating losses. In addition, any weakening of current economic conditions, or changes in our planned cash outlay, could also negatively affect our existing cash, cash equivalents, and investment balances. However, based on our current business plan and revenue prospects, we believe that our existing cash and short-term investment balances will be sufficient to meet our projected working capital and other cash requirements for at least the next twelve months. Cash from operations could be affected by various risks and uncertainties, including, but not limited to, the risks detailed later in this discussion in the section titled “*Factors That May Affect Future Results of Operations.*” 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.

ACQUISITIONS

Purchase of Certain Assets of Metering Technology Corporation

On April 11, 2003, we acquired certain assets from privately held MTC, a Scotts Valley, California based developer of intelligent, communicating energy measuring devices and systems. In exchange for the assets acquired, we paid \$11.0 million in cash to MTC. In conjunction with the asset purchase, we also entered into a sublease agreement with MTC for a portion of their Scotts Valley office space. The sublease expired in December 2003.

The assets we acquired from MTC included de minimus operating assets (e.g., fixed assets), certain intangible assets (e.g., in-process research and development, or IPR&D, and purchased technology), and the opportunity to hire certain of MTC’s employees. We did not assume any of MTC’s existing customer contracts, nor did we buy any of their existing finished goods inventory. Lastly, we did not assume any of MTC’s existing obligations or liabilities with the exception of a lease for a piece of office equipment and a term contract with an internet service provider. In evaluating the group of assets acquired, it was clear that several components necessary for the acquired set to continue operating normal operations were missing. As a result, we concluded that the assets acquired do not constitute a business as such term is defined in EITF 98-3, *Determining Whether a Nonmonetary Transaction Involves Receipt of Productive Assets or of a Business*, and SFAS No. 141, or FAS 141, *Business Combinations*. Accordingly, FAS 141 accounting does not apply to this transaction and no goodwill has been recorded.

We allocated the purchase price based upon the fair value of the assets acquired. The excess of the purchase price over the fair value of the assets acquired has been allocated to the identified intangible assets in accordance with the requirements of FAS 141 and SFAS No. 142, or FAS 142, *Goodwill and Other Intangible Assets*. The following is a final allocation of the purchase price (in thousands):

Property and equipment	\$ 235
Intangible assets and IPR&D	<u>10,765</u>
 Total assets acquired	 <u>\$ 11,000</u>

Of the acquired intangible assets of \$10.8 million, \$9.8 million was assigned to IPR&D and was charged to product development expenses on the date the assets were acquired. The remaining \$957,000 was assigned to purchased technology and was amortized over its estimated useful life of one year. Amortization expense related to this purchased technology was \$239,000 for the twelve months ended December 31, 2004, and \$718,000 for 2003. For both periods, this amortization charge was recorded as a component of product development expenses. As of March 31, 2004, the purchased technology was fully amortized.

Since the date of the asset purchase, we have focused the efforts of the employees who joined our company from MTC on the development of a new LONWORKS based electricity meter to be used in our Networked Energy Services, or NES, product offering. The foundation for this new electricity meter was a prototype design developed by MTC prior to the asset purchase transaction.

Acquisition of BeAtHome.com, Inc.

On January 31, 2002, we acquired all of the outstanding capital stock of BeAtHome, a Fargo, North Dakota based developer of remote management system hardware and software. In exchange for all of the outstanding capital stock of BeAtHome, we 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 transaction was accounted for as a purchase transaction under FAS 141.

We allocated the purchase price based upon the fair value of the assets acquired. Acquired in-process research and development assets of \$400,000 were expensed at the date of acquisition. The results of BeAtHome's operations have been included in the consolidated condensed financial statements since January 31, 2002.

Since the acquisition, we have been integrating certain components of BeAtHome's technology into our current and future product offerings, such as the Panoramix platform. The Panoramix platform was subsequently included in our NES offering. We believe these new products and product enhancements will make it easier for our customers to aggregate and process information from remote LONWORKS networks, thereby increasing overall network management capabilities.

RELATED PARTY TRANSACTIONS

During the years ended December 31, 2004, 2003, and 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.

From time to time, M. Kenneth Oshman, our Chairman of the Board and Chief Executive Officer, uses private air travel services for business trips for himself and for any employees accompanying him. A company controlled by Armas Clifford Markkula, a director of our company, provides these private air travel services. Our net expense 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.

In September 2000, we entered into a stock purchase agreement with Enel pursuant to which Enel purchased 3.0 million newly issued shares of our common stock for \$130.7 million (see Note 9 to our accompanying consolidated financial statements for additional information on our transactions with Enel). The closing of this stock purchase occurred on September 11, 2000. At the closing, Enel had agreed that it would not, except under limited circumstances, sell or otherwise transfer any of those shares for a specified time period. That time period expired September 11, 2003. As of February 28, 2005, Enel had not disposed of any of its 3.0 million shares.

Under the terms of the stock purchase agreement, Enel has the right to nominate a member of our board of directors. Enel appointed Mr. Francesco Tatò as its representative to our board of directors in September 2000. As a consequence of the expiration of Mr. Tatò's mandate as Enel's Chief Executive Officer, Mr. Tatò resigned his board memberships in all of Enel's subsidiaries and affiliates, including Echelon. His resignation from our board of directors was effective in June 2002. Enel has reserved its right to nominate a new member of our board of directors, although, as of February 28, 2005, they have not done so. During the term of service of Enel's representative on our board of directors from September 2000 to September 2002, Enel's representative abstained from resolutions on any matter relating to Enel.

At the time we entered into the stock purchase agreement with Enel, we also entered into a research and development agreement with an affiliate of Enel. Under the terms of the research and development agreement, we are cooperating with Enel to integrate our LONWORKS technology into Enel's remote metering management project in Italy. During 2004, we recognized revenue from products and services sold to Enel and its designated manufacturers of approximately \$64.1 million, \$12.8 million of which was included in accounts receivable at December 31, 2004. During 2003, we recognized revenue from products and services sold to Enel and its designated manufacturers of approximately \$75.8 million, \$15.3 million of which was included in accounts receivable at December 31, 2003. During 2002, we recognized revenue from products and services sold to Enel and its designated manufacturers of approximately \$81.6 million. We expect that 2005 revenue relating to the Enel program will decline significantly as compared to the \$64.1 million recognized in 2004. In addition, we expect that we will complete our Enel program related deliveries during 2005, after which revenue, if any, from Enel and its designated manufacturers will be reduced to an immaterial amount.

RECENTLY ISSUED ACCOUNTING STANDARDS

In December 2004, the FASB issued SFAS 123R, *Share-Based Payment*. SFAS 123R requires that an amount be calculated for all equity instruments granted to employees, including grants of employee stock options, using a fair-value-based method, and that these amounts be recorded as an expense in the our consolidated statements of income. The accounting provisions of SFAS 123R are effective for reporting periods beginning after June 15, 2005. We will be required to adopt SFAS 123R in our fiscal third quarter ending September 30, 2005. The pro forma disclosures previously permitted under SFAS 123, *Accounting for Stock-Based Compensation*, will no longer be an alternative to

financial statement recognition. See “Stock-Based Employee Compensation Plans” in Note 2 to our accompanying consolidated financial statements later in this report for the pro-forma net loss and net loss per share amounts that would have been reported for the years ended December 31, 2004, 2003, and 2002 had we used a fair-value-based method similar to the methods required under SFAS 123R to measure compensation expense for employee stock incentive awards. Although we have not yet determined whether the adoption of SFAS 123R will result in amounts that are similar to the current pro-forma disclosures under SFAS 123, we are evaluating the requirements under SFAS 123R and expect the adoption to have a significant adverse impact on our results of operations and earnings per share.

In December 2004, the FASB issued FASB Staff Position No. FAS 109-1, or FAS 109-1, *Application of FASB Statement No. 109, “Accounting for Income Taxes,” to the Tax Deduction on Qualified Production Activities Provided by the American Jobs Creation Act of 2004*. The AJCA introduces a special 9% tax deduction on qualified production activities. FAS 109-1 clarifies that this tax deduction should be accounted for as a special tax deduction in accordance with Statement No. 109. We do not currently expect the adoption of these new tax provisions will have a material impact on our financial position, results of operations, or cash flows.

In December 2004, the FASB issued FASB Staff Position No. FAS 109-2, or FAS 109-2, *Accounting and Disclosure Guidance for the Foreign Earnings Repatriation Provision within the American Jobs Creation Act of 2004*. The AJCA introduces a limited time 85% dividends received deduction on the repatriation of certain foreign earnings of a U.S. taxpayer (repatriation provision), provided certain criteria are met. FAS 109-2 provides accounting and disclosure guidance for the repatriation provision. Although FAS 109-2 is effective immediately, we do not expect to complete our evaluation of the repatriation provision until after Congress or the Treasury Department provides additional clarifying language on key elements of the provision, which we currently expect will occur during the first two quarters of 2005. In January 2005, the Treasury Department began to issue the first of a series of clarifying guidance documents related to this provision. We do not currently expect the adoption of these new tax provisions will have a material impact on our financial position, results of operations, or cash flows.

In June 2004, the FASB issued EITF Issue No. 02-14, or EITF 02-14, *Whether an Investor Should Apply the Equity Method of Accounting to Investments Other Than Common Stock*. EITF 02-14 addresses whether the equity method of accounting applies when an investor does not have an investment in voting common stock of an investee but exercises significant influence through other means. EITF 02-14 states that the investor should only apply the equity method of accounting when it has investments in either common stock or in-substance common stock of a corporation, provided that the investor has the ability to exercise significant influence over the operating and financial policies of the investee. The accounting provisions of EITF 02-14 are effective for reporting periods beginning after September 15, 2004. We do not currently expect the adoption of EITF 02-14 will have a material impact on our financial position, results of operations, or cash flows.

In March 2004, the FASB issued EITF Issue No. 03-1, or EITF 03-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments*. EITF 03-1 includes new guidance for evaluating and recording impairment losses on debt and equity investments, as well as new disclosure requirements for investments that are deemed to be temporarily impaired. In September 2004, the FASB delayed the accounting provisions of EITF 03-1; however the disclosure requirements remain effective for annual periods ending after June 15, 2004. We will evaluate the impact of EITF 03-1 once final guidance is issued.

FACTORS THAT MAY AFFECT FUTURE RESULTS OF OPERATIONS

Interested persons should carefully consider the risks described below in evaluating our company. 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 of operations, cash flows, and financial position may be significantly harmed if we are not successful in our arbitration with Enel.

On May 3, 2004, we announced that Enel filed a request for arbitration to resolve a dispute regarding our marketing and supply obligations under the Research and Development and Technological Cooperation Agreement dated June 28, 2000, the “R&D Agreement”. The arbitration took place in London in early March 2005 under the rules of arbitration of the International Court of Arbitration of the International Chamber of Commerce, or ICC. We do not currently expect that the arbitration tribunal will deliver its decision before mid-May 2005. Enel filed the request with the ICC in Paris, France on April 28, 2004. Enel claims that the R&D Agreement obligates us to supply Enel with additional concentrator and metering kit products for use outside of Italy and to cooperate with Enel to market Enel’s Contatore Elettronico system internationally. Enel is seeking to compel Echelon to sell to Enel an unspecified amount of

additional products, to jointly market the Contatore Elettronico system with Enel outside of Italy, and to pay damages in the amount of Euro 42.65 million, or approximately \$56.5 million using the exchange rate as of February 28, 2005. We believe we have fulfilled our obligations under the R&D Agreement, including any obligation with respect to the sale of products and with respect to joint marketing. We believe that Enel's claims are without merit and are vigorously defending ourselves in the ongoing arbitration proceedings. As of December 31, 2004, no amounts have been accrued in relation to the damages sought by Enel. However, if the arbitration ultimately results in a judgment against us, and Enel is awarded some or all of its requested damages, such award would have a material negative impact on our results of operations, cash flows, and financial position.

After the Enel project is completed, or if it is terminated, our overall revenue will decline significantly to the extent we do not expand our customer base or our NES business is not successful.

If Enel continues to deploy its Contatore Elettronico project in accordance with its scheduled rollout plan, we expect that revenues from the Enel project will decline by approximately \$44 million in 2005 from the \$64.1 million of revenue that we received in 2004. Such revenues will account for approximately 25% of our overall revenues through 2005. Once the delivery of our products for use in the project is completed, which we currently estimate will occur in 2005, or if it is 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 NES system products may be required before a final decision is made by the utility. For example, Continuon Netbeheer, a utility grid operator located in the Netherlands, has completed a limited field trial of our NES system within its service territory. We do not know if Continuon will decide to move forward with a mass deployment of our NES system, and even if Continuon decides to proceed, we may not be able to negotiate mutually agreeable terms for such a deployment. In addition, there is generally an extended development and integration effort required in order to incorporate the new technology into the utility's existing infrastructure.

Once a utility decides to move forward with a mass deployment of our NES system, the timing of our revenues will depend on a variety of factors, including, among others, contractual acceptance provisions and shipping terms. Due to the extended sales cycle and the additional development and integration time required, as well as the uncertainty of the timing of our revenues, we do not currently believe that we will be able to find one or more replacements for the Enel project revenue reduction in 2005. Because we do not expect to be able to replace the revenues generated by the Enel project, our 2005 revenues and results of operations will be harmed.

Although we have invested substantial amounts of time and money into our NES system, our utility market product offerings may not be accepted by our targeted customers, or may fail to meet our financial targets. If we incur penalties and/or damages with respect to sales of the NES system, such penalties and/or damages could have an adverse effect on our financial condition, revenues, and operating results.

To be successful in our efforts to sell our NES system, we have invested and intend to continue to invest significant resources in the development of the NES system. For example, in April 2003 we acquired certain assets of Metering Technology Corporation, or MTC, for \$11.0 million in cash and the assumption of certain liabilities. Among the assets acquired was the right to use MTC's developed electricity meter technology. As we have integrated their technology into our NES system, we have incurred and expect to continue to incur significant development costs.

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 a significant portion of its metering infrastructure with a homogenous population of intelligent, networked meters. In addition, even if the NES system meets a utility's technical specifications, we may not be able to meet all of the utility's contractual requirements. 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, as was the case for actual versus targeted NES system revenues for the second, third and fourth quarters of 2004. Also, our current annual revenue targets for our NES business for 2005 are less than the levels originally forecast in mid 2004. The timing of these revenues could also fluctuate from our business plan for a variety of reasons, including the contractual acceptance provisions we agree to when negotiating our NES system sales agreements. Additionally, the gross margins we receive from our NES system offering will not be as high as for most of our other products.

Even if we are successful in penetrating the utility market with our NES system offering, we face competition from many companies. For example, Enel, our largest customer, has designed a system that it intends to use to compete with our NES system using third party products instead of our products. Enel has significantly greater experience and financial, technical, and other resources than we have. Enel recently announced an alliance with IBM to market and sell metering systems worldwide. We presently do not believe that our company will contribute to that alliance. Other

competitors, including Actaris, Atos Origin, DCSI, Elster, Hexagram, Hunt Technologies, Itron, Iskraemeco, Nexus, and Ramar, as well as our own customers such as Enermet, Horstmann Controls, Kamstrup, and Milab, could also develop and market their own multi-service metering systems that will compete with our NES system offering. We believe that our NES system will compete with other offerings both in terms of technical capabilities as well as in terms of warranties, indemnities, penalties, and other contractual provisions.

In addition, we presently plan to sell our NES products to utilities either directly or through resellers or other partners. If we sell the NES system directly to a utility, the utility may require us to assume responsibility for installing the NES system in the utility's territory, integrating the NES system into the utility's operating and billing system, overseeing management of the combined system, and undertaking other activities. These are services that we generally would not be responsible for if we sold our NES products through a reseller or other partner, or if we sold directly to a utility that managed those activities on its own. To date, we do not have any significant experience with those services. As a result, if we sold directly to a utility that required us to provide those services, we may be required to contract with third parties to satisfy those obligations. We cannot assure you that we would find appropriate third parties to provide those services on reasonable terms, or at all. Assuming responsibility for these or other services would add to the costs and risks associated with NES system installations, and could also negatively affect the timing of our revenues and cash flows related to these transactions.

Lastly, sales of the NES system may expose us to penalties, damages and other liabilities relating to late deliveries, late or improper installations or operations, failure to meet product specifications, failure to achieve performance specifications, indemnities or otherwise. If we are unsuccessful in deploying the NES system, or otherwise fail to meet our financial targets for the NES system, our revenues and results of operations will be harmed.

When we are required to take a compensation expense for the value of stock options or other compensatory awards that we issue to our employees, our results of operations will be negatively impacted.

We believe that stock options are a key element in our ability to attract and retain employees in the markets in which we operate. In December 2004, the Financial Accounting Standards Board issued *Share-Based Payment: an amendment of FASB Statements No. 123 and 95*, which requires a company to recognize, as an expense, the fair value of stock option and other stock-based compensation to employees beginning in 2005. We currently use the intrinsic value method to measure compensation expense for stock-based awards to our employees. Under this standard, we generally do not consider stock option grants issued under our employee stock option plans to be compensation when the exercise price of the stock option is equal to or greater than the fair market value on the date of grant. For 2005 and thereafter, we will be required to take a compensation charge as stock options or other stock-based compensation awards are issued or as they vest, including the unvested portion of options that were granted prior to 2005. This compensation charge will be based on a calculated value of the option or other stock-based award using a complex methodology, and which may not correlate to the current market price of our stock. The calculations required under the new accounting rules are very complex. Recognizing this, the Financial Accounting Standard Board has made such rules effective as of the beginning of the first interim or annual reporting period that begins after June 15, 2005. For us, this will be our fiscal third quarter, which commences July 1, 2005. However, under the new rules, we will be required to retroactively calculate and recognize such expense as if the new rules had become effective January 1, 2005. We believe that the effect of such compensation expense will be to materially reduce our reported gross margins from historical levels and to materially increase our operating expenses from historical levels, resulting in reduced earnings and earnings per share.

Our future results would be significantly harmed if our project with Enel were terminated.

In June 2000, we entered into an R&D Agreement with an affiliate of Enel. Under the terms of the R&D 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 ended December 31, 2004, revenue attributable to the Contatore Elettronico project was approximately \$64.1 million, or 58.3% of our total revenue. We expect the Contatore Elettronico project to account for approximately 25% of our targeted revenue for 2005.

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

- a dispute could develop between Enel and our company regarding the scope of any of the other obligations of the parties with respect to the Contatore Elettronico project, the R&D Agreement or other agreements, or with respect to product suitability, quality, price, specifications, quantities, or other issues. Even if we should prevail in such a dispute, the costs incurred by Echelon and the diversion of time by key employees could adversely affect our company. If any dispute is not resolved in our favor or in a timely manner, the project, or revenue generated from 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 R&D Agreement. From time to time, we have interpreted the contracts between our companies differently from Enel, which has led to disagreements.

For example, as a result of a dispute regarding the compensation owed to us for the transition from the second generation of metering kit to the third generation of metering kit, which dispute has since been resolved, we deferred approximately \$2.7 million of revenue from the second quarter to the third quarter of 2003;

- Enel could decide to no longer pursue the Contatore Elettronico project to the extent we currently contemplate, or Enel could further replace the LONWORKS technology used by Enel in the Contatore Elettronico project with other technology;
- once manufactured, electricity meters, data concentrators, 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 decide to reduce its inventories of electricity meters or data concentrators. 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; or
- the R&D Agreement between Enel and our company might be terminated if, among other things, either party materially breaches its obligations under the agreement.

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

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

In each of our markets, we compete with a wide array of manufacturers, vendors, strategic alliances, systems developers and other businesses. For our LONWORKS Infrastructure products, 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 Groupe 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. Products from other companies such as Digi International, emWare, Ipsil, JumpTec, Lantronix, Microsoft, and Wind River Systems, as well as certain micro-controller manufacturers including Freescale (formerly Motorola), Texas Instruments, Micro Chip, and Philips, all of which promote directly connecting devices to the Internet, could also compete with our products. In addition, in the utilities market, products from companies such as Actaris, Atos Origin, DCSI, Elster, Hexagram, Hunt Technologies, Itron, Iskraemeco, Nexus, and Ramar, each of which offers automatic meter reading products for the utility industry, as well as metering systems from our customers such as Enel, Enermet, Horstmann Controls, Kamstrup, and Milab, could compete with our NES system. For example, Enel, our largest customer, working with IBM will compete with our NES system using third party products instead of our products. Enel and IBM, as well as several other named competitors, have significantly greater experience and financial, technical, and other resources than we have. If we are unable to compete effectively in any of the markets we serve, our revenues, results of operations, and financial position could be harmed.

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 data 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 not maintain sufficient net working capital to fund production of electricity meters or may fail to provide letters of credit that we mandate;
- disputes may arise with us regarding product quality or responsibility for costs incurred by the meter manufacturers relating to metering kits;
- 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;
- 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; and
- 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.

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 a material amount, and therefore, would have an adverse effect on our financial condition and operating results.

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, as well as utilities that may be interested in our NES system, 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 their own prolonged product development, system integration, 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;
- the deployment schedule for projects undertaken by our utility or systems integrator customers;
- the actions of utility regulators or management boards regarding investments in metering systems;
- delays in installing, operating, and evaluating the results of NES system field trials; and
- the time it takes for utilities to evaluate multiple competing bids, negotiate terms, and award contracts for large scale metering system deployments.

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. If any of these factors prevent or substantially delay our ability to complete a transaction, our revenues and results of operations could be harmed.

If we do not maintain adequate distribution channels for our LONWORKS Infrastructure products, or establish adequate distribution channels for our NES system products, our revenues could be harmed 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 14.4% of our total net revenues in 2004, 10.2% of our total net revenues in 2003, and 9.2% of our total net revenues in 2002. Worldwide sales to distributors, including those to EBV, accounted for approximately 19.8% of total net revenues in 2004, 14.6% of our total net revenues in 2003, and 14.2% of our total net revenues in 2002.

Our current agreement with EBV expires in December 2005. 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.

We market our NES system products directly, as well as through selected value added resellers, or VARs, and integration partners. However, we believe that a significant portion of our NES system sales, if any, will be made through our VARs and integration partners, rather than directly by our company, since to date, our VARs and integration partners have greater experience in overseeing projects for utilities. As a result, if our relationships with our VARs and integration partners are not successful, or if we are not able to create similar distribution channels for our NES system business with other companies, our NES system business may not be successful, which could harm our revenues and operating results.

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

We face a number of risks as a company in a rapidly changing and developing market, and you must consider our prospects in light of the associated risks. This is true of both our LONWORKS Infrastructure products and our new NES system products. 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.

Compliance with new rules and regulations concerning corporate governance may be costly, time-consuming, and difficult to achieve, which could harm our operating results and business.

The Sarbanes-Oxley Act, or the Act, which was signed into law in October 2002, mandates, among other things, that companies adopt new corporate governance measures and imposes comprehensive reporting and disclosure requirements. The Act also imposes increased civil and criminal penalties on a corporation, its chief executive and chief financial officers, and members of its board of directors, for securities law violations. In addition, the Nasdaq National Market, on which our common stock is traded, has adopted and is considering the adoption of additional comprehensive rules and regulations relating to corporate governance. These rules, laws, and regulations have increased the scope, complexity, and cost of our corporate governance, reporting, and disclosure practices. Because compliance with these new rules, laws, and regulations will be costly and time-consuming, our management's attention could be diverted from managing our day-to-day business operations, and our operating expenses could increase. In addition, because of the inherent limitations in all financial control systems, it is possible that, in the future, a material weakness may be found in our internal controls over financial reporting, which could affect our ability to insure proper financial reporting.

We also expect these developments could make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. Further, our board members, Chief Executive Officer, and Chief Financial Officer face an increased

risk of personal liability in connection with the performance of their duties. As a result, we may have difficulty attracting and retaining qualified board members and executive officers, which could harm our business.

We are subject to changes in financial accounting standards, which may affect our reported financial results or the way we conduct business.

Generally accepted accounting principles in the United States, including those affecting revenue recognition, have been the subject of frequent interpretations. As a result of the enactment of the Sarbanes-Oxley Act and the review of accounting policies by the SEC, as well as by national and international accounting standards bodies, the frequency of future accounting policy changes may accelerate. Such future changes in financial accounting standards, including pronouncements relating to revenue recognition, may have a significant effect on our reported results of operations, including results of transactions entered into before the effective date of the changes. For example, our reported results of operations will be negatively impacted when we are required to expense stock options or other compensatory grants to our employees.

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. These 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, as well as 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. However, we cannot be certain that these manufacturers will continue to supply Neuron Chips until these contracts expire, and we currently have no other source of supply for Neuron Chips. If either Toshiba or Cypress were to cease designing, manufacturing, and distributing Neuron Chips, we could be forced to rely on a sole supplier for Neuron Chips. If both Toshiba and Cypress were to exit this business, we would attempt to find a replacement. This would be an expensive and time-consuming process, with no guarantee that we would be able to find an acceptable alternative source.

We also maintain manufacturing agreements with other semiconductor manufacturers for the production of key products, including those used in the Enel Project and our NES system. For example, in 2003 we announced a new product family that we refer to as Power Line Smart Transceivers. A sole source supplier, STMicroelectronics, manufactures these products. Additionally, Cypress, 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 Cypress, and AMI Semiconductor.

Our future success will also depend significantly on our ability to manufacture our products cost-effectively, in sufficient volumes and in accordance with quality standards. For most of our products requiring assembly, we use contract electronic manufacturers, including WKK Technology, TYCO TEPC/Transpower, Able Electronics, and World Fair International. 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 quality, costs, delivery schedules, product availability, and manufacturing yields. For instance, quality problems at a contract equipment manufacturer could result in missed shipments to our customers and unusable inventory. Such delays could, among other things, reduce our revenues, increase our costs by increasing our inventory reserves, and cause us to incur penalties. 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 only recently began to transfer certain manufacturing capacity to World Fair, so our experience with that company is limited. When we transition, 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 reestablish 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.

The failure of any key manufacturer to produce products on time, at agreed quality levels, and fully compliant with 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 price increases, shortages, or interruptions of supply would adversely affect our revenues and/or gross profits.

As previously discussed, we currently purchase several key products and components only from sole or limited sources. For some of these suppliers, we do not maintain signed agreements that would obligate them to supply to us on negotiated terms. As a result, we may be vulnerable to price increases for products or components. In addition, 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. To help address these issues, we may decide to purchase quantities of these items that are in excess of our estimated requirements. As a result, we could be forced to increase our excess and obsolete inventory reserves to provide for these excess quantities. 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 our products infringe 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 our products may be infringing certain patents or other intellectual property rights of that third party. We may also be contractually obligated to indemnify our customers or other third parties that use our products in the event they are alleged to infringe a third party's intellectual property rights. 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. Thus, even if our products do not infringe, we may elect to take a license or settle to avoid incurring such costs. In the event our products are infringing upon the intellectual property rights of others, 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 customers may not pursue product opportunities based on their concerns regarding third party intellectual property rights, particularly patents, and this could reduce the market opportunity for the sale of our products and services.

Although we have achieved profitability, we have a history of losses and expect to incur substantial losses again in 2005.

For the year ended December 31, 2004, we generated a profit of \$5.3 million. As of December 31, 2004, we had an accumulated deficit of \$64.4 million. We have invested and expect to continue investing significant financial resources in product development, marketing and sales. We believe we will incur a substantial loss in 2005.

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

- the effect of expensing stock option grants or other compensatory awards to our employees, when such requirements become effective in 2005;
- revenue growth of our LONWORKS Infrastructure products;
- timely installation of Enel's Contatore Elettronico project;
- adoption of our NES solution and other products by service providers for use in utility and/or other home automation projects;
- continuation of worldwide economic growth, particularly in certain industries such as semiconductor manufacturing equipment;
- the ability of our contract electronic manufacturers to provide quality products on a timely basis, especially during periods where excess capacity in the contract electronic manufacturing market is reduced;
- 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, in a timely and cost-effective way, new products that perform as designed;
- costs associated with 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 any future business acquisitions;
- 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, 2004, we had net operating loss carry forwards for federal income tax reporting purposes of about \$68.3 million and for state income tax reporting purposes of about \$8.9 million, which expire at various dates through 2022. In addition, as of December 31, 2004, we had tax credit carry forwards of about \$13.1 million, \$6.7 million of which expire at various dates through 2022. 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 \$45.6 million as of December 31, 2004. The Internal Revenue Code of 1986 also contains provisions requiring companies to fully utilize net operating losses before utilizing tax credits. As a practical matter this provision may cause many of our tax credits to expire even if we return to profitability. 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.

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 85.2% of our total net revenues in 2004, 86.5% in 2003, and 88.2% in 2002. We expect that international sales will continue to constitute a significant portion of our total net 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:

- international terrorism and anti-American sentiment;
- 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.

The outbreak of severe acute respiratory syndrome, or SARS, that began in China, Hong Kong, Singapore, and Vietnam in 2003 also had a negative impact on our business. Any future outbreak of SARS, or other widespread communicable diseases, could similarly impact our operations, including the inability for our sales and operations personnel located in affected regions to travel and conduct business freely, the impact any such disease may have on one or more of the distributors for our products in those regions, and increased supply chain costs. Additionally, any future SARS or other health-related disruptions at our third-party contract manufacturers or other key suppliers, many of whom are located in China and other parts of southeast Asia, could affect our ability to supply our customers with products in a timely manner.

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 approximately 3.2% in 2004, 3.8% in 2003, and 4.8% in 2002. In addition, much of our sales and marketing expenses, as well as certain other costs, are incurred in currencies other than the U.S. Dollar. For example, if China revalues its currency, the Chinese Renminbi, against the U.S. Dollar, the costs of products and manufacturing and other services that we obtain from our suppliers and contractors in China could increase significantly. If the value of the U.S. Dollar declines as compared to the local currency where the expenses are incurred, our expenses, when translated back into U.S. Dollars, will increase. For example, using the currency rates in effect as of December 31, 2004, our 2003 costs and expenses, as reported in U.S. Dollars, would have increased by approximately \$1.4 million. This would have resulted in a \$0.04 reduction in earnings per share for 2003.

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 European 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.

In addition, our utility customers and value added reseller partners may insist that we price our NES system products in local currencies. In that case, we could face additional currency risk and if we chose to hedge that risk, we would incur additional costs.

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

Our quarterly and annual results have varied significantly from period to period, and we have, on occasion, failed to meet securities analysts' expectations. For example, in the first and second quarters of 2004, we generated net income totaling \$2.7 million, whereas in the third quarter, we generated a net loss of \$400,000. Our future results may continue to fluctuate and may not meet analysts' expectations in some future period. As a result, the price of our common stock could fluctuate or decline. Some factors that could cause this variability, many of which are outside of our control, include the following:

- our 2005 operating results will be materially adversely effected by the expense required to be recorded under SFAS 123, Share-Based Payment;
- revenues from the Enel project may fail to meet analysts' expectations or our revenue and earnings guidance;
- we may fail to meet stockholder expectations relating to our NES system and additional utility customers and applications;
- we may fail to meet stockholder expectation for revenue growth in our sales of LONWORKS Infrastructure products to OEMs and systems integrators;
- the rates at which OEMs purchase our products and services may fluctuate;
- our products may not be manufactured in accordance with specifications or our established quality standards, or may not perform as designed;
- 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 for both our LONWORKS Infrastructure products and our NES products;
- 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;
- revenue recognition for sales of our NES system products may be dependent on acceptance criteria determined by our NES system customers;
- our pricing policies or those of our competitors may change;
- we could incur costs associated with business acquisitions, including up-front in-process research and development charges and ongoing amortization expenses related to other identified intangible assets;
- we could incur ongoing operational expenses associated with 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 may indicate that an impairment event has taken place. If so, we will be required to take an asset impairment charge that could have a material adverse effect on our operating results;

- 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 and cause our stock price to decline.

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, Echonet in the home control market, and a group comprised of Asea Brown Boveri, Adtranz/Bombardier, 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 demand 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 in past 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 altogether. If capital spending in our markets declines, or does not increase, it may be necessary for us to gain significant market share from our competitors in order to achieve our financial goals and return to profitability.

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 because 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.

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. As of February 28, 2005, we have 93 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. In addition, we may not apply for or obtain patents in each country in which our technology may be used. If any of our patents fail to protect our technology, or if we do not obtain patents in certain countries, 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 and it may take longer to receive a remedy from a court outside 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.

Defects in or misuse of our products or other liabilities not covered by insurance 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, as new versions are released, or as a result of the manufacturing process. In addition, our customers or their installation partners 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. In addition, we could decide to extend the warranty period, or incur other costs outside of our normal warranty coverage, to help address any known errors or failures in our products and mitigate the impact on our customers. 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, reduce our revenues, increase our expenses, and negatively impact our operating results and financial condition.

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. For example, utility customers

purchasing our NES system may require that we agree to indemnities or penalties in excess of the provisions we typically employ with our LONWORKS Infrastructure products, or that are not limited at all. Also, local laws may impose liability for NES system or other product failures, including liability for harm to property or persons. Such failures could harm our reputation, expose our company to liability, and adversely affect our operating results and financial position.

We may also experience losses or potential losses in the event of property damage, liability for harm to a third party's property or person, claims against our directors or officers, and the like. To help reduce our exposure to these types of claims, we currently maintain property, general commercial liability, errors and omissions, directors and officers, and other lines of 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, or we might not carry insurance that covers a specific claim. For example, during 2000, the total limit for claims under our errors and omissions insurance policy was \$17.0 million. Since then, we have reduced the total limit for this line of coverage to \$11.0 million because we believed the premiums our insurers requested were excessive. We believe that the premiums for the types of insurance we carry will continue to fluctuate from period to period. In times of significant cost increases, this could result in increased costs or reduced limits. Consequently, if we elect to reduce our coverage, or if we do not carry insurance for a particular type of claim, 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.

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 Silicon Valley is known to be high. Because we are prohibited from making loans to executive officers under recent legislation, we will not be able to assist potential key personnel as they acquire housing or incur 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 markets for our products are 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, our NES system offering to utilities is new. Also, 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 could have, or could be

perceived to have, advantages over our products in remote monitoring or other applications. As another example, many competitors promote media types, such as radio frequency (wireless) and fiber optics that, even if used with LONWORKS technology, could displace sales of certain of our transceiver products. 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.

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:

- significant stockholders may sell some or all of their holdings of our stock. For example, Enel presently owns 3,000,000 shares, or approximately 7.3% of our outstanding common stock. Enel is generally free to sell these shares at its discretion. In the event Enel, or any other significant stockholder, elects to sell all or a portion of their holdings in our shares, such sale or sales could depress the market price of our stock during the period in which such sales are made;
- investors may be concerned about our ability to develop new customers for our NES system products, the success of our project with Enel, and the success we have selling our LONWORKS Infrastructure products and services to OEMs and systems integrators;
- investors may be concerned about the expense that we will be required to record for stock options and other stock-based incentives provided to our employees;
- 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
- increases in market interest rates, which generally have a negative impact on stock prices.

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 in any given technology company's stock price has often been unrelated or disproportionate to the operating performance of that particular company.

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. If the markets we target were to adopt voluntary standards that are incompatible with our products or technology, either inadvertently or by design, our revenues, operating results, and financial condition would be adversely affected.

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. In general, these regulations limit the ability of companies 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.

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

As of February 28, 2005, 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 36.2% 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 7.3% 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 his board membership 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 September 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 September 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, could lead to litigation 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, it is possible that power losses will adversely affect our business in the future, or that the cost of acquiring sufficient power to run our business will 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. We do not insure against several natural disasters including, earthquakes.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk Disclosures. The following discussion about our market risk disclosures involves forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements. We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments to hedge these exposures.

Interest Rate Sensitivity. We maintain a short-term investment portfolio consisting mainly of fixed income securities with a weighted average maturity of less than one year. These available-for-sale securities are subject to interest rate risk and will fall in value if market interest rates increase. If market rates were to increase immediately and uniformly by 10% from levels at December 31, 2004, the fair market value of the portfolio would decline by an immaterial amount, due primarily to the fact that current interest rates are at historically low levels. We currently intend to hold our fixed income investments until maturity, and therefore we would not expect our operating results or cash flows to be affected to any significant degree by a sudden change in market interest rates. If necessary, we may sell short-term investments prior to maturity to meet the liquidity needs of the company.

Foreign Currency Exchange Risk. We have international subsidiaries and operations and are, therefore, subject to foreign currency rate exposure. To date, our exposure to exchange rate volatility has not been significant. Due to our modest exposure to foreign currency fluctuations, if foreign exchange rates were to fluctuate by 10% from rates at December 31, 2004, our financial position and results of operations would not be materially affected. However, it is possible that there would be a material impact in the future.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We have established disclosure controls and procedures to ensure that material information relating to Echelon, including its consolidated subsidiaries, is made known to the officers who certify Echelon's financial reports and to other members of senior management and the Board of Directors.

Based on their evaluation as of December 31, 2004, the principal executive officer and principal financial officer of Echelon have concluded that Echelon's disclosure controls and procedures (as defined in the Securities Exchange Act of 1934, or the Exchange Act, Rules 13a-14(c) and 15-d-14(c)) are effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission rules and forms.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control system was designed to provide reasonable assurance to our management and Board of Directors regarding the preparation and fair presentation of published financial statements.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control — Integrated Framework*, our management concluded that our internal control over financial reporting is effective as of December 31, 2004. Our management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2004, has been audited by KPMG LLP, an independent registered public accounting firm and auditors of our consolidated financial statements, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal controls over financial reporting during the quarter ended December 31, 2004, that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Limitations on the Effectiveness of Controls

In accordance with Section 404 of the Sarbanes-Oxley act, we conducted a thorough review of all of our internal control processes and procedures through December 31, 2004. Since we began these reviews, we identified a number of processes where an opportunity to improve our internal controls existed. We have not identified any findings that rose to the level of a "material weakness", as such term is defined under standards established by the Public Company Accounting Oversight Board. As part of our ongoing effort to maximize our internal controls over financial reporting, each of these control improvement opportunities has been, or is in the process of being, remediated by management.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected.

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, 2004, 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, 2004, 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, 2004, 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, 2004, which we incorporate herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

We refer you to the information appearing under the caption “Audit and Related Fees” 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, 2004, which we incorporate herein by reference.

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

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Reports of Independent Registered Public Accounting Firm.....	51
Consolidated Balance Sheets	53
Consolidated Statements of Operations	54
Consolidated Statements of Stockholders' Equity.....	55
Consolidated Statements of Comprehensive Income.....	55
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2. Financial Statement Schedule

Schedule II Valuation and Qualifying Accounts.....	77
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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

<u>No.</u>	<u>Description of Document</u>
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, Independent Registered Public Accounting Firm.
24.1	Power of Attorney (see signature page).
31.1	Certificate of Echelon Corporation Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certificate of Echelon Corporation Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification by the Chief Executive Officer and 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.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Echelon Corporation:

We have audited the accompanying consolidated balance sheets of Echelon Corporation and subsidiaries (the Company) as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2004. In connection with our audits 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 audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Echelon Corporation and subsidiaries as of December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2004, in conformity with U.S. generally accepted accounting principles. 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.

The Company changed its method of accounting for goodwill in 2002.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Echelon Corporation's internal control over financial reporting as of December 31, 2004, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 15, 2005 expressed an unqualified opinion on management's assessment of, and the effective operation of, internal control over financial reporting.

/s/ KPMG LLP

Mountain View, California
March 15, 2005

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Echelon Corporation:

We have audited management's assessment, included in the accompanying Management's Report on Internal Control over Financial Reporting appearing under Item 9A, that Echelon Corporation maintained effective internal control over financial reporting as of December 31, 2004, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Echelon Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the internal control over financial reporting of Echelon Corporation based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

In our opinion, management's assessment that Echelon Corporation maintained effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Also, in our opinion, Echelon Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Echelon Corporation and subsidiaries as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity and comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2004, and our report dated March 15, 2005 expressed an unqualified opinion on those consolidated financial statements. Our report referred to a change in the method of accounting for goodwill in 2002.

/s/ KPMG LLP
Mountain View, California
March 15, 2005

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

	<u>As of December 31,</u>	
	<u>2004</u>	<u>2003</u>
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents.....	\$ 35,510	\$ 18,667
Short-term investments	124,854	126,256
Accounts receivable, net of allowances of \$1,614 in 2004 and \$1,374 in 2003	17,261	20,110
Inventories	5,584	5,906
Other current assets	<u>2,213</u>	<u>2,519</u>
Total current assets	<u>185,422</u>	<u>173,458</u>
PROPERTY AND EQUIPMENT:		
Computer and other equipment	11,091	11,664
Software	3,767	4,473
Furniture and fixtures	2,609	2,688
Leasehold improvements	<u>16,843</u>	<u>6,498</u>
	34,310	35,323
Less: Accumulated depreciation and amortization.....	<u>(17,327)</u>	<u>(16,225)</u>
Net property and equipment	16,983	19,098
Goodwill.....	8,344	8,163
Restricted investments	11,106	10,867
Other long-term assets	<u>2,061</u>	<u>2,542</u>
	<u>\$223,916</u>	<u>\$214,128</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 5,157	\$ 6,922
Accrued liabilities	5,452	4,793
Deferred revenues	<u>1,422</u>	<u>998</u>
Total current liabilities	<u>12,031</u>	<u>12,713</u>
LONG-TERM LIABILITIES:		
Deferred rent, net of current portion	<u>823</u>	<u>491</u>
Total long-term liabilities	<u>823</u>	<u>491</u>
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—41,186,601 shares in 2004 and 40,409,956 shares in 2003	415	407
Additional paid-in capital.....	277,442	272,323
Treasury stock, at cost (289,984 and 265,000 shares in 2004 and 2003, respectively)	(3,367)	(3,191)
Accumulated other comprehensive income	922	1,007
Accumulated deficit	<u>(64,350)</u>	<u>(69,622)</u>
Total stockholders' equity	<u>211,062</u>	<u>200,924</u>
	<u>\$223,916</u>	<u>\$214,128</u>

See accompanying notes to the consolidated financial statements.

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

	<u>For the Year Ended December 31.</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
REVENUES:			
Product.....	\$108,947	\$117,153	\$121,454
Service	<u>974</u>	<u>1,000</u>	<u>1,380</u>
Total revenues.....	<u>109,921</u>	<u>118,153</u>	<u>122,834</u>
COST OF REVENUES:			
Cost of product.....	46,110	49,407	57,059
Cost of service.....	<u>2,003</u>	<u>2,650</u>	<u>2,880</u>
Total cost of revenues	<u>48,113</u>	<u>52,057</u>	<u>59,939</u>
Gross profit.....	<u>61,808</u>	<u>66,096</u>	<u>62,895</u>
OPERATING EXPENSES:			
Product development.....	25,262	35,113	21,456
Sales and marketing	19,440	18,597	17,291
General and administrative	<u>13,388</u>	<u>12,108</u>	<u>9,711</u>
Total operating expenses	<u>58,090</u>	<u>65,818</u>	<u>48,458</u>
Income from operations	3,718	278	14,437
Interest and other income, net	<u>2,140</u>	<u>2,219</u>	<u>3,777</u>
Income before provision for income taxes.....	5,858	2,497	18,214
PROVISION FOR INCOME TAXES.....	<u>586</u>	<u>600</u>	<u>1,457</u>
Net income	<u>\$ 5,272</u>	<u>\$ 1,897</u>	<u>\$ 16,757</u>
Income per share:			
Basic	<u>\$ 0.13</u>	<u>\$ 0.05</u>	<u>\$ 0.42</u>
Diluted	<u>\$ 0.13</u>	<u>\$ 0.05</u>	<u>\$ 0.41</u>
Shares used in per share calculation:			
Basic	<u>40,918</u>	<u>40,070</u>	<u>39,468</u>
Diluted	<u>41,007</u>	<u>40,792</u>	<u>40,726</u>

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	Accumu- lated Deficit	Total
	Shares	Amount	Shares	Amount			Comprehen- sive Income/ (Loss)		
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	973	10	—	—	3,096	—	—	—	3,106
Amortization of deferred compensation	—	—	—	—	—	31	—	—	31
Foreign currency translation adjustment	—	—	—	—	—	—	584	—	584
Unrealized holding loss 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
Exercise of stock options	684	7	—	—	3,440	—	—	—	3,447
Foreign currency translation adjustment	—	—	—	—	—	—	959	—	959
Unrealized holding loss on available-for-sale securities.....	—	—	—	—	—	—	(397)	—	(397)
Net income	—	—	—	—	—	—	—	1,897	1,897
BALANCE AT DECEMBER 31, 2003	40,675	407	(265)	(3,191)	272,323	—	1,007	(69,622)	200,924
Exercise of stock options	802	8	—	—	5,119	—	—	—	5,127
Repurchase of stock	—	—	(25)	(176)	—	—	—	—	(176)
Foreign currency translation adjustment	—	—	—	—	—	—	478	—	478
Unrealized holding loss on available-for-sale securities.....	—	—	—	—	—	—	(563)	—	(563)
Net income	—	—	—	—	—	—	—	5,272	5,272
BALANCE AT DECEMBER 31, 2004	<u>41,477</u>	<u>\$ 415</u>	<u>(290)</u>	<u>\$(3,367)</u>	<u>\$277,442</u>	<u>\$ —</u>	<u>\$ 922</u>	<u>\$(64,350)</u>	<u>\$211,062</u>

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

	For the Year Ended December 31,		
	2004	2003	2002
Net income	\$ 5,272	\$ 1,897	\$ 16,757
Other comprehensive income/(loss), net of tax:			
Foreign currency translation adjustment	478	959	584
Unrealized holding gain/(loss) on available-for-sale securities, net of tax	<u>(563)</u>	<u>(397)</u>	<u>(177)</u>
Comprehensive income	<u>\$ 5,187</u>	<u>\$ 2,459</u>	<u>\$ 17,164</u>

See accompanying notes to the consolidated financial statements.

ECHELON CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Twelve Months Ended December 31,		
	2004	2003	2002
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income.....	\$ 5,272	\$ 1,897	\$ 16,757
Adjustments to reconcile net income to net cash used in operating activities:			
Depreciation and amortization	4,922	5,644	4,062
In-process research and development.....	—	9,808	400
Provision for doubtful accounts	(75)	17	116
Deferred compensation expense.....	—	—	31
Loss on disposal of fixed assets.....	27	8	7
Change in operating assets and liabilities:			
Accounts receivable	2,924	2,803	6,100
Inventories	322	2,085	2,325
Other current assets.....	306	698	8,354
Accounts payable.....	(1,765)	929	(2,183)
Accrued liabilities	659	1,020	1,194
Deferred revenues	424	(1,543)	1,445
Deferred rent.....	332	324	120
Net cash provided by operating activities	<u>13,348</u>	<u>23,690</u>	<u>38,728</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of available-for-sale short-term investments.....	(161,279)	(173,374)	(86,647)
Proceeds from sales and maturities of available-for-sale short-term investments	162,118	146,269	75,342
Purchase of assets of Metering Technology Corporation.....	—	(11,000)	—
Purchase of BeAtHome.com, Inc.....	—	—	(5,811)
Purchase of restricted investments	(239)	(341)	(10,526)
Changes in other long-term assets.....	(310)	576	358
Capital expenditures	(2,224)	(6,500)	(3,425)
Net cash provided by (used in) investing activities	<u>(1,934)</u>	<u>(44,370)</u>	<u>(30,709)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from exercise of stock options and warrants.....	5,127	3,447	3,106
Repurchase of common stock	(176)	—	—
Net cash provided by financing activities	<u>4,951</u>	<u>3,447</u>	<u>3,106</u>
EFFECT OF EXCHANGE RATES ON CASH.....	<u>478</u>	<u>959</u>	<u>584</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS.....	<u>16,843</u>	<u>(16,274)</u>	<u>11,709</u>
CASH AND CASH EQUIVALENTS:			
Beginning of year	18,667	34,941	23,232
End of year	<u>\$ 35,510</u>	<u>\$ 18,667</u>	<u>\$ 34,941</u>
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid for income taxes.....	<u>\$ 885</u>	<u>\$ 625</u>	<u>\$ 304</u>

See accompanying notes to the consolidated financial statements.

ECHELON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2004, 2003, and 2002

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: litigation; reliance on significant customers; undetermined market acceptance of its products and interoperability in general; the impact of new accounting standards; competition; fluctuation in operating results; dependence on key manufacturers and suppliers; lengthy sales cycle; 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; 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 2004 presentation.

Revenue Recognition

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 4.6% of total revenues in 2004, 4.6% of total revenues in 2003, and 3.3% of total revenues in 2002. Service revenues consist of product support (including software post-contract support services), training, and custom software development services.

The Company recognizes revenue pursuant to applicable accounting standards, including Statement of Position No. 97-2, or SOP 97-2, *Software Revenue Recognition*, as amended, and Securities and Exchange Commission (SEC) Staff Accounting Bulletin (SAB) No. 104, *Revenue Recognition*. In general, pursuant to these rules, 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 SOP 97-2, 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 as much as 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 generally not tied to milestones.

With the exception of sales to EBV, the Company’s sole distributor of its LONWORKS Infrastructure products in Europe, the Company’s customers are not entitled to return products for a refund. In general, during the manufacturing process, our products are tested to ensure they will perform to stated specifications. If we are unable to perform such a test, we defer revenue on those products when shipped until such time as the customer “accepts” the products or the period for acceptance testing has elapsed. In the case of customer software development, revenues are deferred until 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.

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. EBV also receives sales credits for deliveries to selected high volume customers.

The Company also offers EBV, and certain other of its distributors, bonuses and other sales incentives. During 2004, these bonuses ranged from 2.5% 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 and EITF 01-09.

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 in 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 currently scheduled to continue through April 2005. 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.

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, 2004 and 2003, the Company's available-for-sale securities had original contractual maturities of between four to twenty-four months, and from three to twenty-four months, respectively. As of December 31, 2004 and 2003, the average remaining term to maturity for the Company's available-for-sale securities was eight and seven 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 for the Company's available-for-sale short-term investments, by major security type, were as follows (in thousands):

	December 31,					
	2004			2003		
	Amortized Cost	Aggregate Fair Value	Unrealized Holding Losses	Amortized Cost	Aggregate Fair Value	Unrealized Holding Gains
U.S. corporate securities:						
Commercial paper.....	\$ 11,975	\$ 11,971	\$ (4)	\$ 4,976	\$ 4,977	\$ 1
Corporate notes and bonds.....	<u>51,625</u>	<u>51,405</u>	<u>(220)</u>	<u>42,016</u>	<u>42,091</u>	<u>75</u>
	63,600	63,376	(224)	46,992	47,068	76
U.S. government securities	<u>61,667</u>	<u>61,478</u>	<u>(189)</u>	<u>79,132</u>	<u>79,188</u>	<u>56</u>
Total investments in debt securities...	<u>\$125,267</u>	<u>\$124,854</u>	<u>\$ (413)</u>	<u>\$126,124</u>	<u>\$126,256</u>	<u>\$ 132</u>

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market and are primarily comprised of direct material costs 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,	
	2004	2003
Purchased materials	\$1,320	\$1,680
Work-in-process	12	8
Finished goods	<u>4,252</u>	<u>4,218</u>
	<u>\$5,584</u>	<u>\$5,906</u>

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, related software, 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, 2004, 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 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*. As of December 31, 2004, the Company has a single acquired intangible asset with a definite life that has not been fully amortized. The asset, which was assigned a 4-year life when acquired in 2001, will be fully amortized in the quarter ending March 31, 2005.

Restricted Investments

Restricted investments consist of money market funds and certain United States government agency obligations. 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, 2004, 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. As of December 31, 2004, 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, 2004, 2003 and 2002, 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):

	<u>December 31,</u>	
	<u>2004</u>	<u>2003</u>
Accrued payroll and related costs	\$ 2,482	\$ 2,663
Accrued taxes.....	1,398	1,442
Other accrued liabilities	<u>1,572</u>	<u>688</u>
	<u>\$ 5,452</u>	<u>\$ 4,793</u>

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 investments, which are classified as either cash equivalents, short-term, or restricted, and trade receivables. The Company has an investment policy that limits the amount of credit exposure to any one financial institution and restricts placement of the Company's investments to financial institutions independently 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. As of December 31, 2004 and 2003, about 67.6% and 71.2% of the total accounts receivable balance, respectively, were due from Enel and its contract manufacturers. As of December 31, 2004 and 2003, about 9.1% and 5.5% of the total accounts receivable balance, respectively, were due from EBV, the Company's sole distributor of products in Europe. With respect to its 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.

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, 2004, 2003 and 2002 (in thousands, except per share amounts):

	<u>Year ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Net income (Numerator):			
Net income, basic & diluted	<u>\$ 5,272</u>	<u>\$ 1,897</u>	<u>\$ 16,757</u>
Shares (Denominator):			
Weighted average common shares outstanding	40,918	40,070	39,482
Weighted average common shares outstanding subject to repurchase.....	<u>-</u>	<u>-</u>	<u>(14)</u>
Shares used in basic computation	40,918	40,070	39,468
Weighted average common shares outstanding subject to repurchase.....	-	-	14
Common shares issuable upon exercise of stock options (treasury stock method).....	89	722	1,245
Common shares issuable upon exercise of warrants (treasury stock method).....	-	-	-
Average unamortized deferred compensation.....	<u>-</u>	<u>-</u>	<u>(1)</u>
Shares used in diluted computation	<u>41,007</u>	<u>40,792</u>	<u>40,726</u>
Net income per share:			
Basic	<u>\$ 0.13</u>	<u>\$ 0.05</u>	<u>\$ 0.42</u>
Diluted	<u>\$ 0.13</u>	<u>\$ 0.05</u>	<u>\$ 0.41</u>

For the years ended December 31, 2004, December 31, 2003, and December 31, 2002, 8,659,271, 6,204,994, and 4,533,479 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.

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Net income as reported	\$ 5,272	\$ 1,897	\$ 16,757
Add: Stock-based employee compensation expense included in reported net income, net of related tax effects	-	-	31
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	<u>(20,613)</u>	<u>(22,315)</u>	<u>(32,822)</u>
Pro forma net loss	<u>(\$15,341)</u>	<u>(\$20,418)</u>	<u>(\$16,034)</u>
Basic earnings/(loss) per share:			
As reported.....	\$0.13	\$0.05	\$ 0.42
Pro forma	(0.37)	(0.51)	(0.41)
Diluted earnings/(loss) per share:			
As reported.....	\$0.13	\$0.05	\$0.41
Pro forma	(0.37)	(0.51)	(0.41)

The weighted-average grant date fair value of options granted during 2004, 2003, and 2002 was \$6.00, \$8.92, and \$12.91, respectively. 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:

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Expected dividend yield.....	0.0%	0.0%	0.0%
Risk-free interest rate	2.4%	2.6%	4.2%
Expected volatility	78.2%	100.9%	118.0%
Expected life (in years)	3.6	4.2	4.4

Because the Company expects to grant additional stock options in the future, the above pro forma disclosures are not representative of pro forma effects on reported financial results for future years.

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.

Recent Accounting Pronouncements

In December 2004, the FASB issued SFAS 123R, *Share-Based Payment*. SFAS 123R requires that an amount be calculated for all equity instruments granted to employees, including grants of employee stock options, using a fair-value-based method, and that these amounts be recorded as an expense in the Company's consolidated statements of income. The accounting provisions of SFAS 123R are effective for reporting periods beginning after June 15, 2005. The Company will be required to adopt SFAS 123R in its fiscal third quarter ending September 30, 2005. The pro forma disclosures previously permitted under SFAS 123, *Accounting for Stock-Based Compensation*, will no longer be an alternative to financial statement recognition. See "Stock-Based Employee Compensation Plans" above for the pro-

forma net loss and net loss per share amounts that would have been reported for the years ended December 31, 2004, 2003, and 2002 had the Company used a fair-value-based method similar to the methods required under SFAS 123R to measure compensation expense for employee stock incentive awards. Although the Company has not yet determined whether the adoption of SFAS 123R will result in amounts that are similar to the current pro-forma disclosures under SFAS 123, the Company is evaluating the requirements under SFAS 123R and expects the adoption to have a significant adverse impact on its results of operations and earnings per share.

In December 2004, the FASB issued FASB Staff Position No. FAS 109-1, or FAS 109-1, *Application of FASB Statement No. 109, "Accounting for Income Taxes," to the Tax Deduction on Qualified Production Activities Provided by the American Jobs Creation Act of 2004*. The AJCA introduces a special 9% tax deduction on qualified production activities. FAS 109-1 clarifies that this tax deduction should be accounted for as a special tax deduction in accordance with Statement No. 109. The Company does not currently expect the adoption of these new tax provisions will have a material impact on its financial position, results of operations, or cash flows.

In December 2004, the FASB issued FASB Staff Position No. FAS 109-2, or FAS 109-2, *Accounting and Disclosure Guidance for the Foreign Earnings Repatriation Provision within the American Jobs Creation Act of 2004*. The AJCA introduces a limited time 85% dividends received deduction on the repatriation of certain foreign earnings of a U.S. taxpayer (repatriation provision), provided certain criteria are met. FAS 109-2 provides accounting and disclosure guidance for the repatriation provision. Although FAS 109-2 is effective immediately, the Company does not expect to complete its evaluation of the repatriation provision until after Congress or the Treasury Department provides additional clarifying language on key elements of the provision, which we currently expect will occur during the first half of 2005. In January 2005, the Treasury Department began to issue the first of a series of clarifying guidance documents related to this provision. The Company does not currently expect the adoption of these new tax provisions will have a material impact on its financial position, results of operations, or cash flows.

In June 2004, the FASB issued EITF Issue No. 02-14, or EITF 02-14, *Whether an Investor Should Apply the Equity Method of Accounting to Investments Other Than Common Stock*. EITF 02-14 addresses whether the equity method of accounting applies when an investor does not have an investment in voting common stock of an investee but exercises significant influence through other means. EITF 02-14 states that the investor should only apply the equity method of accounting when it has investments in either common stock or in-substance common stock of a corporation, provided that the investor has the ability to exercise significant influence over the operating and financial policies of the investee. The accounting provisions of EITF 02-14 are effective for reporting periods beginning after September 15, 2004. The Company does not currently expect the adoption of EITF 02-14 will have a material impact on its financial position, results of operations, or cash flows.

In March 2004, the FASB issued EITF Issue No. 03-1, or EITF 03-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments*. EITF 03-1 includes new guidance for evaluating and recording impairment losses on debt and equity investments, as well as new disclosure requirements for investments that are deemed to be temporarily impaired. In September 2004, the FASB delayed the accounting provisions of EITF 03-1; however the disclosure requirements remain effective for annual periods ending after June 15, 2004. The Company will evaluate the impact of EITF 03-1 once final guidance is issued.

3. SIGNIFICANT CUSTOMERS:

The Company markets its products and services throughout the world to original equipment manufacturers (OEMs) and systems integrators in the building, industrial, transportation, utility/home, and other automation markets. The Company currently has two customers that represent a majority of the Company's revenues: Enel (including Enel's third party meter manufacturers) and EBV, the Company's sole distributor of its LONWORKS Infrastructure products in Europe. For the years ended December 31, 2004, 2003, and 2002, the percentage of the Company's revenues attributable to sales made to these two customers were as follows:

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Enel	58.3%	64.2%	66.4%
EBV	14.4%	10.2%	9.2%
Total	<u>72.7%</u>	<u>74.4%</u>	<u>75.6%</u>

The Company currently expects that revenues from Enel will decline significantly in 2005 from amounts received in 2004. The Company's contract with EBV, which has been in effect since 1997 and has been renewed annually thereafter, expires in December 2005.

4. ACQUISITIONS:

On April 11, 2003, the Company acquired certain assets from privately held Metering Technology Corporation ("MTC") of Scotts Valley, California for a total purchase price of \$11.0 million in cash and the assumption of certain liabilities. The assets acquired do not constitute a business as defined in SFAS No. 141, *Business Combinations*. As such, no goodwill has been recorded in conjunction with this transaction.

The Company allocated the purchase price based upon the fair value of the assets acquired. The excess of the purchase price over the fair value of the assets acquired has been allocated to the identified intangible assets in accordance with the requirements of SFAS No. 141 and SFAS No. 142, *Goodwill and Other Intangible Assets*. The following is a final allocation of the purchase price (in thousands):

Property and equipment	\$ 235
Intangible assets and IPR&D	<u>10,765</u>
Total assets acquired	<u>\$ 11,000</u>

Of the acquired intangible assets of approximately \$10.8 million, \$9.8 million was assigned to in process research and development, or IPR&D, and was charged to product development expenses on the date the assets were acquired. The remaining \$957,000 was assigned to purchased technology and was amortized over its estimated useful life of 1 year, and was fully amortized as of December 31, 2004. For the twelve months ended December 31, 2004 and 2003, amortization expense related to this purchased technology was approximately \$239,000 and \$718,000, respectively, which was recorded in product development expenses.

On January 31, 2002, the Company completed the acquisition of 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 IPR&D, have been included in the consolidated financial statements since that date. As a result of the acquisition, the Company integrated certain components of BeAtHome's technology into existing and new product offerings, such as the Panoramix platform. The Panoramix platform was subsequently included in the Company's Networked Energy Solutions offering. The Company believes these enhancements 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 of 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	<u>5,744</u>
Total assets acquired	<u>\$ 6,854</u>
Current liabilities	<u>961</u>
Total liabilities assumed.....	<u>\$ 961</u>
Net assets acquired.....	<u>\$ 5,893</u>

Of the \$600,000 of acquired intangible assets, \$400,000 was assigned to IPR&D and was charged 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, and, as of December 31, 2004, was fully amortized. For the twelve months ended December 31, 2004 and 2003, amortization expense related to this purchased technology was approximately \$8,000 and \$100,000, respectively.

5. GOODWILL AND INTANGIBLE ASSETS:

The Company adopted SFAS 142 on January 1, 2002. In lieu of amortization, SFAS 142 required that the Company perform an initial impairment review of its goodwill in 2002 and continues to require at least an annual impairment review thereafter. In accordance with these impairment review requirements, the Company completed a transitional impairment test in 2002, and an annual impairment review during the quarters ended March 31, 2003 and 2004, and determined that there was no impairment. However, if as a result of impairment reviews that are conducted 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 carrying amount of goodwill in 2004 and 2003 relates to three acquisitions, including ARIGO Software GmbH (“ARIGO”) in 2001, BeAtHome in 2002, and MTC in 2003. The goodwill acquired as part of the ARIGO transaction is valued in Euros, and is therefore subject to foreign currency translation gains and losses. The changes in the carrying amount of goodwill, net for the years ended December 31, 2003 and 2004 are as follows (in thousands):

	<u>Amount</u>
Balance as of December 31, 2002.....	\$ 7,758
Unrealized foreign currency translation gain	405
Balance as of December 31, 2003.....	8,163
Unrealized foreign currency translation gain	181
Balance as of December 31, 2004.....	<u>\$ 8,344</u>

As of December 31, 2004, the Company’s intangible assets subject to amortization consisted of purchased technology with a net carrying value of approximately \$38,000. For the years ending December 31, 2004, 2003 and 2002, amortization of these intangible assets was \$580,000, \$1.1 million, and \$344,000, respectively. Estimated 2005 amortization expense related to these intangible assets is \$38,000. This future amortization estimate is subject to fluctuations resulting from exchange rate differences between the United States dollar and the European Euro.

6. COMMITMENTS AND CONTINGENCIES:

Lease Commitments

The Company leases its facilities under operating leases that expire on various dates through 2013. In December 1999, the Company entered into a lease agreement with a real estate developer for its existing 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. At the end of the current ten-year lease term, the Company has the right, pursuant to the lease agreement, to extend the lease for two sequential five-year terms.

In October 2000, the Company entered into another lease agreement with the same real estate developer for an additional building at its headquarter site. Construction on the second building was completed in May 2003, at which time monthly rental payments commenced. This second lease agreement also requires minimum rental payments for ten years totaling approximately \$23.4 million. 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. At the end of the current ten-year lease term, the Company has the right, pursuant to the lease agreement, to extend the lease for two sequential five-year terms.

In addition to its corporate headquarter facility, the Company also leases facilities for its sales, marketing, and product development personnel located elsewhere within the United States and in nine foreign countries throughout Europe and Asia. These operating leases are of shorter duration, generally one to two years, and in some instances are cancelable with advance notice.

As of December 31, 2004, future minimum lease payments under all operating leases were as follows (in thousands):

2005	\$ 4,975
2006	4,831
2007	4,714
2008	4,579
2009	4,596
Thereafter.....	<u>12,224</u>
Total.....	<u>\$ 35,919</u>

Rent expense was approximately \$5.6 million, \$5.2 million, and \$3.1 million for 2004, 2003, and 2002, respectively. Although 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, 2004, and December 31, 2003, the Company has accrued approximately \$831,000 and \$499,000, respectively, of deferred rent related to these agreements. As of December 31, 2004, \$8,000 of the \$831,000 deferred rent balance is reflected in accrued liabilities while the remaining \$823,000 is classified as a long-term liability in the accompanying consolidated balance sheets. As of December 31, 2003, \$8,000 of the \$499,000 deferred rent balance is reflected in accrued liabilities while the remaining \$491,000 is classified as a long-term liability.

Royalties

The Company has certain royalty commitments associated with the shipment and licensing of certain of its products. Royalty expense is generally based on a dollar amount per unit shipped or a percentage of the underlying revenue. Royalty expense, which is recorded as a component of cost of product revenues in the Company's consolidated statements of income, was approximately \$503,000, \$613,000, and \$568,000 for the years ended December 31, 2004, 2003, and 2002, respectively.

The Company will continue to be obligated for royalty payments in the future associated with the shipment and licensing of certain of its products. The Company is currently unable to estimate the maximum amount of these future royalties. However, such amounts will continue to be dependent on the number of units shipped or the amount of revenue generated from these products.

Guarantees

In the normal course of business, the Company provides indemnifications of varying scope to its customers against claims of intellectual property infringement made by third parties arising from the use of its products. Historically, costs related to these indemnification provisions have not been significant. However, the Company is unable to estimate the maximum potential impact of these indemnification provisions on its future results of operations.

As permitted under Delaware law, the Company has entered into agreements whereby it indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was serving, at the Company's request in such capacity. The indemnification period covers all pertinent events and occurrences during the officer's or director's lifetime. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited. However, the Company has directors and officers insurance coverage that would enable it to recover a portion of any future amounts paid. The Company believes the estimated fair value of these indemnification agreements in excess of the applicable insurance coverage is minimal.

Legal Actions

On May 3, 2004, the Company announced that Enel filed a request for arbitration to resolve a dispute regarding the company's marketing and supply obligations under the Research and Development and Technological Cooperation Agreement dated June 28, 2000, the "R&D Agreement". The arbitration took place in London in early March 2005 under the rules of arbitration of the International Court of Arbitration of the International Chamber of Commerce, or ICC. The Company does not currently expect that the arbitration tribunal will deliver its decision before mid-May 2005. Enel filed the request with the ICC in Paris, France on April 28, 2004. Enel claims that the R&D Agreement obligates the Company to supply Enel with additional concentrator and metering kit products for use outside of Italy and to cooperate with Enel to market Enel's Contatore Elettronico system internationally. Enel is seeking to compel Echelon to sell to Enel an unspecified amount of additional products, to jointly market the Contatore Elettronico system with Enel outside of Italy, and to pay damages in the amount of Euro 42.65 million, or approximately \$56.5 million using the exchange rate as of February 28, 2005. The Company believes it has fulfilled its obligations under the R&D Agreement, including any

obligation with respect to the sale of products and with respect to joint marketing. The Company believes that Enel's claims are without merit and is vigorously defending itself in the ongoing arbitration proceedings. As of December 31, 2004, no amounts have been accrued in relation to the damages sought by Enel. However, if the arbitration ultimately results in a judgment against the Company, and Enel is awarded some or all of its requested damages, such award would have a material negative impact on the Company's results of operations, cash flows, and financial position.

In addition to the matter described above, from time to time, in the ordinary course of business, the Company is also subject to legal proceedings, claims, investigations, and other proceedings, including claims of alleged infringement of third-party patents and other intellectual property rights, and commercial, employment, and other matters. In accordance with generally accepted accounting principles, the Company makes a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. These provisions are reviewed at least quarterly and adjusted to reflect the impacts of negotiations, settlements, rulings, advice of legal counsel, and other information and events pertaining to a particular case. While the Company believes it has adequately provided for such contingencies as of December 31, 2004, the amounts of which were immaterial, it is possible that the Company's results of operations, cash flows, and financial position could be harmed by the resolution of any such outstanding claims.

7. 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, 2004, 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, 2004.

Common Stock

As of December 31, 2004, the Company was authorized to issue 100,000,000 shares of \$0.01 par value common stock, of which 41,186,601 were outstanding.

In March and August 2004, the Company's board of directors approved a stock repurchase program, which authorizes the Company to repurchase up to 3.0 million shares of the Company's common stock. During the fourth quarter of 2004, the Company repurchased 24,984 shares under the program at a cost of \$176,000. As of December 31, 2004, 2,975,016 shares are available for repurchase. The stock repurchase program will expire in March 2006.

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 May 15, 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 accounting 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, which was amended and restated in May 2004. As of December 31, 2004, a total of 12,929,398 shares of Common Stock were 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 and after May 5, 2003, generally have a term of five years from the

date of grant. Options granted June 15, 2000 through May 5, 2003, generally have a term of ten years. The exercise price of stock options granted under the 1997 Plan is determined by the Board of Directors (or a Committee of the Board of Directors), but will be at least equal to 100% of the fair market value per share of common stock on the date of grant (or at least 110% of such fair market value for an incentive stock option granted to a stockholder with greater than 10% voting power of all our stock), 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.

The 1997 Plan also allows for the issuance of stock purchase rights and 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. In addition, the 1997 Plan allows for the issuance of stock appreciation rights, performance shares and performance units. Stock appreciation rights are rights to receive the appreciation in fair market value of common stock between the exercise date and the date of grant, and stock appreciation rights may be granted alone or in tandem with options. The exercise price of stock appreciation right will be at least equal to 100% of the fair market value per share of common stock on the date of grant. Performance units and performance shares are awards that result in a payment to a participant only if performance goals or other vesting criteria are achieved or the awards otherwise vest.

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 initial public offering of the Company's stock in July 1998. The Director Plan has a term of ten years, unless terminated sooner by the Board. As of December 31, 2004, a total of 775,000 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 the grant date. During each of 2004 and 2003, options to purchase an aggregate of 70,000 shares were granted under the Director Plan. The weighted average exercise prices for the option grants in 2004 and 2003, respectively, were \$10.50 and \$14.77.

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 granted under the Director Plan 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 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.

Employee Stock Option Exchange Program

On September 21, 2004, the Company announced a voluntary employee stock option exchange program (the "Exchange Program") whereby eligible employees have an opportunity to exchange some or all of their outstanding options for a predetermined number of new stock options. The Company's Chief Executive Officer, President and Chief

Operating Officer, and Executive Vice President and Chief Financial Officer, along with members of the Board of Directors, are not eligible to participate in the Exchange Program.

Under the Exchange Program, participating eligible employees will receive one new stock option for each exchanged option with an exercise price less than \$12.00 per share. For exchanged options with an exercise price equal to or greater than \$12.00 per share, participants will receive between 0.2 and 0.67 new options for each option exchanged, depending on the exercise price of the exchanged option.

The exercise price of the new options will generally be equal to the fair market value of the Company's common stock on the date of grant, except for those new options granted to eligible executive officers, in which case the exercise price of the new options will be the greater of the fair market value of the Company's common stock on the date of grant, or 115% of the closing price of the Company's stock on the date the exchanged options are cancelled. In addition, in order to comply with local laws, new options granted to participating employees in certain foreign jurisdictions may also have exercise prices that are higher than the fair market value of the Company's common stock on the date of grant.

New options granted under the Exchange Program will have a term equal to the greater of the remaining term of the exchanged options or 2 years from the new option grant date. New options will be subject to a one-year cliff-vesting schedule, at which time the new option will be vested to the same percentage as the exchanged option would have been on that date. After one year, the new options will continue to vest and become exercisable as to 1/48th of the shares subject to the new option on each monthly anniversary of the new option grant date. All vesting of the new options is subject to the participating employee's continued employment with the Company on each relevant vesting date.

On October 21, 2004, in accordance with the Exchange Program, the Company accepted and cancelled options to purchase 3,816,812 shares of its common stock and promised to grant approximately 2,327,334 new options to participating employees. The Company expects to grant the new stock options on April 22, 2005, which is the first business day that is six months and one day after cancellation of the exchanged options. No financial or accounting impact to the Company's financial position, results of operations, or cash flows during 2004 was associated with this transaction.

Option Vesting Acceleration for Executive Officers

On September 17, 2004, the Company's Board of Directors approved the acceleration of vesting for 668,340 outstanding options previously issued to the Company's Chief Executive Officer, President and Chief Operating Officer, and Executive Vice President and Chief Financial Officer. The accelerated options had exercise prices ranging from \$10.89 to \$16.69. The fair market value of the Company's stock on September 17, 2004 was \$8.27. The acceleration of the vesting of these options did not result in a charge based on generally accepted accounting principles. For pro forma disclosure requirements under FAS 123, the unamortized stock-based compensation related to these options prior to the vesting acceleration was approximately \$3.2 million, all of which was recognized in 2004. The Company's Board of Directors approved the vesting acceleration for the three executive officers as they were not eligible to participate in the previously discussed Exchange Program, and because it may produce a more favorable impact on the Company's results from operations when the Company is required to adopt FAS 123(R) in the third quarter of 2005.

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. A detailed reconciliation of the effect on net income and earnings per share had the Company applied the fair value recognition provisions of FASB Statement No. 123, *Accounting for Stock-Based Compensation*, to stock-based employee compensation can be found in Note 2, Summary of Significant Accounting Policies and Practices.

General Option Information

The following table summarizes option activity under all plans:

	<u>Options Outstanding</u>		
	<u>Options</u>	<u>Number</u>	<u>Weighted-</u>
	<u>Available for</u>	<u>Outstanding</u>	<u>Average Exercise</u>
	<u>Grant</u>		<u>Price Per Share</u>
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.....	<u>2,037,668</u>	---	---
BALANCE AT DECEMBER 31, 2002.....	3,118,416	8,134,914	\$17.44
Granted	(2,346,245)	2,346,245	12.68
Cancelled	743,344	(743,344)	25.83
Exercised.....	---	(793,633)	6.17
Additional shares reserved.....	<u>2,086,277</u>	---	---
BALANCE AT DECEMBER 31, 2003.....	3,601,792	8,944,182	\$16.49
Granted	(2,066,475)	2,066,475	10.78
Cancelled	4,453,741	(4,453,741)	17.83
Exercised.....	---	(962,074)	7.22
Additional shares reserved.....	<u>2,120,498</u>	---	---
BALANCE AT DECEMBER 31, 2004.....	<u>8,109,556</u>	<u>5,594,842</u>	<u>\$14.91</u>

The following table summarizes the stock options outstanding as of December 31, 2004:

Exercise Price Range	<u>Options Outstanding</u>			<u>Options Exercisable</u>	
	Number Outstanding at December 31, 2004	Weighted Average Remaining Life (in years)	Weighted Average Exercise Price	Number Exercisable December 31, 2004	Weighted Average Exercise Price
\$6.31-\$10.47	338,450	6.50	\$ 9.73	157,041	\$ 10.11
10.52-10.89	1,060,120	4.28	10.88	375,200	10.87
11.12-11.61	709,048	6.40	11.56	597,656	11.59
11.65-12.88	72,709	7.16	12.69	36,801	12.79
12.91-12.91	873,586	3.39	12.91	540,260	12.91
13.00-16.19	385,200	5.65	14.31	291,967	14.40
16.35-16.35	900,803	6.04	16.35	749,429	16.35
16.36-20.34	628,266	6.02	17.13	567,427	17.04
21.13-30.25	604,160	2.76	27.03	594,323	27.09
\$30.76-\$53.00	<u>22,500</u>	<u>4.77</u>	<u>39.28</u>	<u>21,406</u>	<u>39.72</u>
	<u>5,594,842</u>	<u>4.99</u>	<u>\$ 14.91</u>	<u>3,931,510</u>	<u>\$ 16.05</u>

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 the 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, 2004, there were no shares subject to repurchase by the Company. Of the 3,931,510 options exercisable as of December 31, 2004, 3,817,351 were vested.

Shares Reserved

As of December 31, 2004, the Company had 13,704,398 shares of common stock reserved for future issuance under its Stock Option Programs.

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 provided services or the applicable vesting period, which was typically 48 months. For the year ended December 31, 2002 amortization expense was \$31,000. As of December 31, 2002, the deferred compensation balance was fully amortized.

8. INCOME TAXES:

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

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Domestic	\$ 5,985	\$ 2,490	\$ 18,995
Foreign	<u>(127)</u>	<u>7</u>	<u>(781)</u>
	<u>\$ 5,858</u>	<u>\$ 2,497</u>	<u>\$ 18,214</u>

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

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Federal:			
Current	\$ 179	\$ 220	\$ -
Deferred	<u>-</u>	<u>-</u>	<u>-</u>
Total federal provision	<u>179</u>	<u>220</u>	<u>-</u>
State:			
Current	30	47	439
Deferred	<u>-</u>	<u>-</u>	<u>-</u>
Total state provision	<u>30</u>	<u>47</u>	<u>439</u>
Foreign:			
Current	377	333	1,018
Deferred	<u>-</u>	<u>-</u>	<u>-</u>
Total foreign provision	<u>377</u>	<u>333</u>	<u>1,018</u>
Total provision for income taxes	<u>\$ 586</u>	<u>\$600</u>	<u>\$1,457</u>

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):

	<u>Year Ended December 31,</u>		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Federal tax at statutory rate of 35%	\$2,050	\$ 874	\$ 6,375
State taxes, net of federal benefit	30	11	286
U.S.-Foreign rate differential	106	(55)	976
Change in Valuation Allowance	(1,673)	(278)	(6,784)
Other non-deductible permanent differences	73	48	290
Others	<u>--</u>	<u>--</u>	<u>314</u>
Total provision for income taxes	<u>\$ 586</u>	<u>\$ 600</u>	<u>\$ 1,457</u>

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

	<u>December 31,</u>	
	<u>2004</u>	<u>2003</u>
Net operating loss carry forwards	\$ 24,139	\$ 29,445
Foreign net operating loss carry forwards.....	2,571	2,149
Tax credit carry forwards.....	11,235	9,179
Capitalized research and development costs.....	160	319
Reserves and other cumulative temporary differences.....	<u>7,476</u>	<u>6,717</u>
Gross deferred income tax assets	45,581	47,809
Valuation allowance.....	<u>(45,581)</u>	<u>(47,809)</u>
Net deferred income tax assets.....	<u>\$ --</u>	<u>\$ --</u>

As of December 31, 2004, the Company had net operating loss carryforwards of \$68.3 million for Federal income tax reporting purposes and \$8.9 million for State income tax reporting purposes, which expire at various dates through 2022. In addition, as of December 31, 2004, the Company had approximately \$6.7 million and \$6.4 million of tax credit carry forwards for increased research expenditures for Federal and California purposes, respectively. The Federal research tax credits will expire at various dates through 2023 and the state tax credit can be carried over indefinitely. In accordance with current Internal Revenue Code rules, federal net operating loss carryforwards must be utilized in full before Federal research and development tax credits can be used to offset current tax liabilities. As a result, depending on the Company's future taxable income in any given year, some or all of the Federal increased research tax credits, as well as portions of the Company's federal and state net operating loss carryforwards, may expire before being utilized. A summary of the annual expiration of net operating loss carryforwards and Federal research tax credits is as follows (in thousands):

	<u>Net operating loss carryforwards</u>		Federal Research Tax <u>Credit</u>
	<u>Federal</u>	<u>State</u>	
2006	\$ 825	\$ -	\$ -
2007	412	-	322
2008	-	-	332
2009	-	-	354
2010	6,572	8,140	179
Thereafter.....	<u>60,505</u>	<u>808</u>	<u>5,553</u>
Total.....	<u>\$ 68,314</u>	<u>\$ 8,948</u>	<u>\$ 6,740</u>

As of December 31, 2004, part of our valuation allowance on deferred tax assets pertains to certain tax credits and net operating loss carry forwards resulting from the exercise of certain employee stock options. The valuation allowance will be reduced in the period in which we realize the benefit from the utilization of these credits and losses to reduce our income taxes payable on our income tax return. When realized, the tax benefit of these credits and losses will be accounted for as a credit to stockholders' equity rather than as a reduction of income tax expense. 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, 2004 and 2003, 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 decreased by \$2.2 million in 2004 and decreased by \$230,000 in 2003. As of December 31, 2004 and 2003, the Company had no significant deferred tax liabilities.

9. 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. Estimated reserves for warranty costs are recorded at the time of

shipment. The reserve for warranty costs was \$148,000 as of December 31, 2004 and \$205,000 as of December 31, 2003.

10. RELATED PARTIES:

In June 2000, the Company entered into a stock purchase agreement with Enel S.p.A., an Italian utility company (“Enel”), whereby Enel purchased 3.0 million newly issues shares of the Company’s common stock. 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, 2004, 2003, and 2002, the Company recognized revenue of approximately \$64.1 million, \$75.8 million, and \$81.6 million, respectively, related to products and services sold to Enel and its contract manufacturers. As of December 31, 2004 and 2003, approximately \$12.8 million and \$15.3 million, respectively, of these revenues were included in accounts receivable.

11. SEGMENT DISCLOSURE:

Segment information is provided in accordance with Statement of Financial Accounting Standards No. 131, or SFAS 131, *Disclosures about Segments of an Enterprise and Related Information*. 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. SFAS 131 also requires disclosures about products and services, geographic areas, and major customers.

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, which are marketed under the LONWORKS® brand name, provide 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 a range of services to its customers that consist of technical support, training courses covering its LONWORKS network technology and products, and custom software development. In total, the Company offers approximately 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 three main groups: the Americas; Europe, Middle East and Africa (“EMEA”); and Asia Pacific/ Japan (“APJ”). Each geographic area provides products and services as further described in Part 1, Item 1, Business. 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’s long-lived assets include property and equipment, restricted investments, goodwill, loans to certain key employees, purchased technology, and deposits on its leased facilities. Long-lived assets are attributed to geographic areas based on the country where the assets are located. As of December 31, 2004, and December 31, 2003, long-lived assets of about \$35.2 million and \$37.2 million, respectively, were domiciled in the United States. Long-lived assets for all other locations are not material to the consolidated financial statements. Assets and the related depreciation and amortization are not reported by geography because that information is not reviewed by the Executive Staff when making decisions about resource allocation to the geographic areas based on their performance.

In North America, the Company sells its products primarily through a direct sales organization. Outside North America, the Company sells its products through both direct sales organizations in EMEA and APJ and local distributors. 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, 2004, 2003 and 2002 is as follows (in thousands):

	Year Ended December 31,		
	<u>2004</u>	<u>2003</u>	<u>2002</u>
Revenues from customers:			
Americas	\$ 16,227	\$ 16,008	\$ 14,470
EMEA	82,187	87,088	62,682
APJ	11,507	15,057	45,682
Unallocated	--	--	--
Total	<u>\$ 109,921</u>	<u>\$ 118,153</u>	<u>\$122,834</u>
Gross profit:			
Americas	\$ 10,530	\$ 10,024	\$ 8,484
EMEA	44,374	48,241	32,406
APJ	6,904	7,831	22,005
Unallocated	--	--	--
Total	<u>\$ 61,808</u>	<u>\$ 66,096</u>	<u>\$62,895</u>
Income (loss) from operations:			
Americas	\$ 6,378	\$ 6,277	\$ 4,952
EMEA	38,554	44,415	28,984
APJ	2,899	4,466	18,360
Unallocated	<u>(44,113)</u>	<u>(54,880)</u>	<u>(37,859)</u>
Total	<u>\$ 3,718</u>	<u>\$ 278</u>	<u>\$ 14,437</u>

Products sold to Enel and its contract manufacturers accounted for 58.3% of total revenues for the year ended December 31, 2004, 64.2% of total revenues for the year ended December 31, 2003, and 66.4% for the year ended December 31, 2002. For the year ended December 31, 2004, 93.6% of the Enel project revenues were derived from products shipped to customers in EMEA and the remaining 6.4% from shipments to customers in APJ. For the year ended December 31, 2003, 90.3% of the Enel project revenues were derived from products shipped to customers in EMEA and the remaining 9.7% from shipments to customers in APJ. For the year ended December 31, 2002, 55.6% of the Enel project revenues were derived from products shipped to customers in EMEA and the remaining 44.4% from shipments to customers in APJ.

EBV, the sole independent distributor of the Company's products in Europe since December 1997, accounted for 14.4% of total revenues for 2004, 10.2% of total revenues for 2003, and 9.2% of total revenues for 2002.

12. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED):

The following tables set forth certain consolidated statement of operations data for each of the quarters in 2004 and 2003. 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 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							
	Q4 '04	Q3 '04	Q2 '04	Q1 '04	Q4 '03	Q3 '03	Q2 '03	Q1 '03
Consolidated Statement of Operations Data:	(in thousands, except per share data)							
Revenues:								
Product.....	\$31,480	\$22,556	\$28,056	\$26,855	\$23,334	\$30,447	\$30,979	\$32,393
Service	<u>376</u>	<u>185</u>	<u>225</u>	<u>188</u>	<u>193</u>	<u>285</u>	<u>277</u>	<u>245</u>
Total revenues	<u>31,856</u>	<u>22,741</u>	<u>28,281</u>	<u>27,043</u>	<u>23,527</u>	<u>30,732</u>	<u>31,256</u>	<u>32,638</u>
Cost of revenues:								
Cost of product	13,366	9,397	12,086	11,261	9,786	10,179	14,034	15,408
Cost of service	<u>525</u>	<u>466</u>	<u>509</u>	<u>503</u>	<u>711</u>	<u>597</u>	<u>656</u>	<u>686</u>
Total cost of revenues	<u>13,891</u>	<u>9,863</u>	<u>12,595</u>	<u>11,764</u>	<u>10,497</u>	<u>10,776</u>	<u>14,690</u>	<u>16,094</u>
Gross profit	<u>17,965</u>	<u>12,878</u>	<u>15,686</u>	<u>15,279</u>	<u>13,030</u>	<u>19,956</u>	<u>16,566</u>	<u>16,544</u>
Operating expenses:								
Product development	6,639	6,227	6,181	6,215	7,079	6,753	16,186	5,095
Sales and marketing	4,780	4,572	5,030	5,058	4,632	4,662	4,633	4,670
General and administrative	<u>3,533</u>	<u>3,123</u>	<u>3,402</u>	<u>3,330</u>	<u>2,954</u>	<u>3,093</u>	<u>3,125</u>	<u>2,936</u>
Total operating expenses	<u>14,952</u>	<u>13,922</u>	<u>14,613</u>	<u>14,603</u>	<u>14,665</u>	<u>14,508</u>	<u>23,944</u>	<u>12,701</u>
Income/(loss) from operations.....	3,013	(1,044)	1,073	676	(1,635)	5,448	(7,378)	3,843
Interest and other income, net.....	<u>385</u>	<u>609</u>	<u>632</u>	<u>514</u>	<u>399</u>	<u>537</u>	<u>542</u>	<u>741</u>
Income/(loss) before provision for income taxes	3,398	(435)	1,705	1,190	(1,236)	5,985	(6,836)	4,584
Provision for income taxes	<u>389</u>	<u>(35)</u>	<u>161</u>	<u>71</u>	<u>(716)</u>	<u>1,496</u>	<u>(547)</u>	<u>367</u>
Net income/(loss)	<u>\$ 3,009</u>	<u>\$ (400)</u>	<u>\$ 1,544</u>	<u>\$ 1,119</u>	<u>(\$ 520)</u>	<u>\$ 4,489</u>	<u>(\$ 6,289)</u>	<u>\$ 4,217</u>
Income/(loss) per share:								
Basic	<u>\$ 0.07</u>	<u>(\$ 0.01)</u>	<u>\$ 0.04</u>	<u>\$ 0.03</u>	<u>(\$ 0.01)</u>	<u>\$ 0.11</u>	<u>(\$ 0.16)</u>	<u>\$ 0.11</u>
Diluted	<u>\$ 0.07</u>	<u>(\$ 0.01)</u>	<u>\$ 0.04</u>	<u>\$ 0.03</u>	<u>(\$ 0.01)</u>	<u>\$ 0.11</u>	<u>(\$ 0.16)</u>	<u>\$ 0.10</u>
Shares used in net income/(loss) per share calculation:								
Basic	<u>41,194</u>	<u>41,183</u>	<u>40,788</u>	<u>40,502</u>	<u>40,337</u>	<u>40,186</u>	<u>39,954</u>	<u>39,788</u>
Diluted	<u>41,198</u>	<u>41,183</u>	<u>41,004</u>	<u>40,857</u>	<u>40,337</u>	<u>41,305</u>	<u>39,954</u>	<u>40,396</u>

SCHEDULE II

ECHELON CORPORATION VALUATION AND QUALIFYING ACCOUNTS (in thousands)

	Balance at Beginning of Period	Charged to Revenues and Expenses	Write-Off of Previously Provided Accounts	Balance at End of Period
Year Ended December 31, 2002				
Allowance for Doubtful Accounts	\$ 510	\$ 116	\$ 56	\$ 570
Year Ended December 31, 2003				
Allowance for Doubtful Accounts	\$ 570	\$ 17	\$ 87	\$ 500
Year Ended December 31, 2004				
Allowance for Doubtful Accounts	\$ 500	\$ (75)	\$ 125	\$ 300
	Balance at Beginning of Period	Charged to Revenues and Expenses	Write-Off of Previously Provided Accounts	Balance at End of Period
Year Ended December 31, 2002				
Allowance for Customer Returns and Sales Credits	\$ 981	\$ 2,691	\$ 2,852	\$ 820
Year Ended December 31, 2003				
Allowance for Customer Returns and Sales Credits	\$ 820	\$ 3,173	\$ 3,119	\$ 874
Year Ended December 31, 2004				
Allowance for Customer Returns and Sales Credits	\$ 874	\$ 4,608	\$ 4,168	\$ 1,314

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.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ M. KENNETH OSHMAN</u> M. Kenneth Oshman	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	March 11, 2005
<u>/s/ OLIVER R. STANFIELD</u> Oliver R. Stanfield	Executive Vice President and Chief Financial Officer (Principal Financial and Principal Accounting Officer)	March 11, 2005
<u>/s/ ARMAS CLIFFORD MARKKULA, JR.</u> Armas Clifford Markkula, Jr.	Vice Chairman	March 7, 2005
<u>/s/ ROBERT J. FINOCCHIO, JR.</u> Robert J. Finocchio, Jr.	Director	March 10, 2005
<u>/s/ MICHAEL E. LEHMAN</u> Michael E. Lehman	Director	March 11, 2005
<u>/s/ ROBERT R. MAXFIELD</u> Robert R. Maxfield	Director	March 6, 2005
<u>/s/ RICHARD M. MOLEY</u> Richard M. Moley	Director	March 8, 2005
<u>/s/ ARTHUR ROCK</u> Arthur Rock	Director	March 6, 2005
<u>/s/ LARRY W. SONSINI</u> Larry W. Sonsini	Director	March 11, 2005

EXHIBIT INDEX

Exhibit

<u>No.</u>	<u>Description of Document</u>
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, Independent Registered Public Accounting Firm.
24.1	Power of Attorney (see signature page).
31.1	Certificate of Echelon Corporation Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certificate of Echelon Corporation Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification by the Chief Executive Officer and 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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