

TERAYON COMMUNICATION SYSTEMS

Form 424B3

November 07, 2003

The information in this prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and has been declared effective. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

**Filed Pursuant to Rule 424B3
Registration No. 333-109536**

Subject to completion, dated November 6, 2003

**Prospectus supplement
(To prospectus dated November 4, 2003)**

10,800,000 shares

Common stock

We intend to sell a number of shares that will result in gross proceeds of approximately \$75,000,000.

Our common stock trades on the Nasdaq National Market under the symbol TERN. The last reported sale price of our common stock on the Nasdaq National Market on November 5, 2003 was \$6.94 per share.

| | Per Share | Total |
|--|-----------|-------|
| Public offering price | \$ | \$ |
| Underwriting discounts and commissions | \$ | \$ |
| Proceeds, before expenses, to Terayon | \$ | \$ |

We have granted the underwriters a 30-day option to purchase up to an additional 1,620,000 shares of our common stock to cover over-allotments, if any, at the public offering price per share, less the underwriting discounts and commissions.

Investing in our common stock involves risks. See Risk factors beginning on page S-7 of this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement. Any representation to the contrary is a criminal offense.

JPMorgan

CIBC World Markets

Needham & Company, Inc.

Merriman Curhan Ford & Co.

November , 2003.

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About this prospectus supplement

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC using a shelf registration process. Under the shelf registration process, we may offer from time to time debt securities, shares of preferred stock, shares of common stock and warrants up to an aggregate amount of \$125,000,000, of which this offering is a part. In the accompanying prospectus, we provide you with a general description of the securities we may offer from time to time under our shelf registration statement including the common stock that we are selling in this offering. Both this prospectus supplement and the accompanying prospectus include important information you should know before investing. This prospectus supplement also adds, updates and changes information contained in the accompanying prospectus. You should read both this prospectus supplement and the accompanying prospectus as well as additional information described under "Where You Can Find More Information" on page S-33 of this prospectus supplement before investing in our common stock.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information. We are not making an offer to sell these securities in any state where the offer is not permitted. You should not assume that the information contained in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the dates on the front covers of those documents.

Unless the context otherwise requires, the terms "we," "our," "us," "the company" and "Terayon" refer to Terayon Communication Systems, Inc., a Delaware corporation.

To the extent any inconsistency or conflict exists between the information included in this prospectus supplement and the information included in the accompanying prospectus, the information included or incorporated by reference in this prospectus supplement updates and supersedes the information in the accompanying prospectus.

Forward-looking statements

The statements contained in this prospectus supplement that are not historical fact are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements, whether expressed or implied, are subject to risks and uncertainties which can cause actual results to differ materially from those currently anticipated, due to a number of factors, which include, but are not limited to:

- our ability to gain new business;
- our ability to develop and bring to market new, technologically advanced products and technology;
- the acceptance of our products and technology in the market;
- the impact of competition and technological changes on the development of our business and pricing of our products;
- the expansion of operations and capital expenditures by our customers;
- the deployment of our products in specific markets;
- our ability to lower and align our operating expenses with market conditions;
- our future capital needs and costs, if any, incurred with respect to acquisitions or restructuring activities;
- risks associated with the effects of general economic conditions and specifically in relation to the cable industry;
- industry trends and future growth of the markets for our products and technology; and
- loss associated with future and pending litigation matters, as they may arise.

Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. When used in this prospectus supplement, the words may, will, should, could, expect, plan, anticipate, believe, estimate, predict, continue, and similar expressions are generally intended to identify forward-looking statements.

Because the risks referred to above, as well as other risks, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events unless, in the course of offering the securities under this prospectus supplement, we provide you with an additional prospectus supplement.

Prospectus supplement summary

The following information supplements, and should be read together with, the information contained or incorporated by reference in other parts of this prospectus supplement and in the accompanying prospectus. This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus to help you understand our business. Because the following is only a summary, it does not contain all of the information that may be important to you. You should carefully read this prospectus supplement and the accompanying prospectus before deciding whether to invest in our common stock. You should pay special attention to the Risk Factors section beginning on page S-7 of this prospectus supplement to determine whether an investment in our common stock is appropriate for you.

Terayon Communication Systems, Inc.

We develop, market and sell Cable Modem Termination Systems, or CMTSs, customer premise equipment, or CPE, including cable modems, and digital video equipment. Our CMTS and CPE products enable cable operators to provision, deliver and manage cost-effective broadband Internet access and voice over Internet Protocol, or VoIP. Our digital video equipment allows cable and satellite operators to provide advanced digital video services to subscribers. We focus on the development and deployment of cable broadband access technologies that will improve cable operators' return on investment by leveraging their existing infrastructure to deliver broadband services to residential and commercial subscribers at lower expense and provide new services. We believe this strategy will provide the following benefits to cable operators: a competitive edge in winning new subscribers, a reduction in subscriber turnover, faster recovery of subscriber acquisition costs, increased revenues and reduced operational and capital expenditures. Our customers consist of some of the largest cable operators in North America, Europe and Asia, including: Adelphia Communications Corporation, Charter Communications, Comcast Corporation, Cox, Cross Beam Networks Corporation, a subsidiary of Sumitomo Corporation, i-CABLE Communications Limited, Rogers Communications Inc. and Time Warner.

For the three months ended September 30, 2003, our revenues increased 54% to \$37.6 million from \$24.5 million for the three months ended September 30, 2002, while our net loss for the third quarter of 2003 decreased to \$7.2 million, or \$0.10 per share, compared to a net loss of \$16.0 million, or \$0.22 per share, for the three months ended September 30, 2002. Over the last year, we completed the transition from selling proprietary-based products to selling standards-based products using the Data Over Cable System Interface Specification, or DOCSIS, 2.0 specification. Due primarily to the adoption of DOCSIS 2.0 and our current position as the only vendor of a CableLabs-qualified DOCSIS 2.0 CMTS, we now generate DOCSIS CMTS and cable modem sales to U.S. cable operators as well as to our legacy global customers.

Industry dynamics

We participate in the worldwide market for equipment sold primarily to cable and satellite operators. Our business is influenced by the following significant changes in our industry:

Increased broadband penetration.

As Internet usage by households continues to increase, more subscribers are electing to switch from dial up access services to high speed access services, particularly those offered by cable operators. The Dell Oro Group, an industry research firm, estimates the number of worldwide cable modem users in 2002 was approximately 21.6 million, up 51% from 14.3 million in 2001.

Dell Oro further projects that the number of cable modem users will continue to grow in 2003, reaching approximately 30 million worldwide, an increase of approximately 40% over 2002. According to Dell Oro, in North America, penetration of homes for high speed data was approximately 16% as of the end of 2002 and is projected to be greater than 20% by the end of 2003. By 2003, cable modem users are expected to represent 61% and 36% of all high speed data subscribers in North America and on a worldwide basis, respectively, based on data from Dell Oro.

Cable operators face increased competition from telecom operators for high speed data solutions.

As competition from telecom operators continues to increase, many cable operators are looking to their equipment vendors, such as us, to provide cost-effective solutions to enable the delivery of differentiated, robust service offerings to residential and commercial subscribers. As cable operators add new subscribers for these services, they must deploy CMTSs and CPEs, such as cable modems and embedded multimedia terminal adapters.

Cable operators face increased competition from satellite operators for video solutions.

Cable operators have responded to the increasing satellite operator digital video offerings by upgrading their networks to provide comparable digital quality video as well as two-way services such as video-on-demand, or VOD. In addition, both cable and satellite operators have recently begun providing high definition television, or HDTV, services to their subscribers. Cable operators have sought to compete with other cable and satellite operators by delivering a differentiated cost-effective bundled video, data and voice solution to their subscribers or by providing more value such as guaranteed downstream and upstream data rate speeds.

Increased demand for triple play broadband services.

Within the last few years, certain cable operators have begun to offer a triple play bundle of services that includes voice, video and data, over a single network, with the objective of capturing higher average revenues per subscriber. We believe cable operators are well positioned to deliver next-generation voice, video and data services because:

cable operators have invested significantly over the past few years to upgrade their cable plants to digital networks; these upgrades allow them to leverage their incumbent video and high speed data positions further;

many cable operators have well equipped networks to offer video and two way high speed data services to over 90% of their subscribers; and

cable operators existing Hybrid Fiber Co-axial, or HFC, infrastructure offers a robust network capable of delivering symmetrical high-bandwidth video, voice and data to the subscriber.

Improved financial prospects for many cable operators.

Beginning in 2001, the communications industry overall experienced a severe downturn, which resulted in a significant reduction in capital spending on communications equipment. Many cable operators were constrained by high debt loads and, in a few cases, filed for bankruptcy. In addition, consolidation in the cable industry, such as the merger of Comcast Corporation and AT&T Broadband, resulted in a temporary reduction in capital spending. We believe that the recent integration efforts in the industry, as well as the completion of certain financial

restructuring actions, will allow many cable operators to increase their investments in access equipment to provide advanced services to their subscribers in a cost-effective manner.

Terayon technology advantage

The delivery of broadband communication, which includes voice, video and data, requires expertise in radio frequency, or RF, motion picture experts group, or MPEG, processing and Internet Protocol, or IP. Our products leverage our expertise in these disciplines and our experience in designing, developing and manufacturing complex equipment, such as CMTSs and digital video head-end equipment.

We provide our customers with an end-to-end set of software and hardware products that allow them to deliver, provision and manage cost-effective, robust broadband offerings for subscribers. Currently, we are the only vendor to the cable industry with an end-to-end DOCSIS 2.0 cable data system qualified and certified by CableLabs. We believe our standards-based DOCSIS 2.0 cable data products enable cable operators to provision and deliver high-speed, symmetrical bandwidth to subscribers cost-effectively. Our cable data equipment is DOCSIS 2.0 qualified and backwards compatible with DOCSIS 1.0 and DOCSIS 1.1 CMTSs and cable modems. The DOCSIS 2.0 standard incorporates advanced physical layer technologies such as Synchronous Code Division Multiple Access, or S-CDMA.

With DOCSIS 2.0, we believe many cable operators can obtain compelling economic and performance advantages over existing CMTSs through higher data rate channel throughput, higher spectral efficiency and greater noise resiliency. DOCSIS 2.0 greatly increases the upstream throughput of cable networks, which enables cable operators to better handle the greater upstream traffic from subscribers to the Internet and to create new services for residential and business markets. These services include, but are not limited to, video conferencing, telephone service, guaranteed bandwidth and peer-to-peer computing.

In the digital video management system market, our expertise in MPEG processing technologies has helped secure a leadership position in statistical remultiplexing and providing the cable and satellite operators with bandwidth and bandwidth management capabilities for standard and high definition rate shaping, grooming and advertisement insertion. We believe we are well positioned to capitalize on the growing demand for cable and satellite operators to provide advanced video services to their subscribers, including bandwidth intensive applications such as HDTV and VOD.

Terayon products

We market and sell the following products:

DOCSIS 2.0 CMTS Products Our DOCSIS 2.0 BlueWave CMTS product line includes a scalable, carrier-class solution for cable operators with demanding broadband applications and a compact solution ideal for smaller or segmented cable networks. This product family is designed from the outset to support integrated voice, video and data broadband services. CMTSs are used by cable operators to provide broadband services to cable modems and other devices installed in their subscribers' homes or businesses.

Cable Modem Products Our TeraJet cable modems are certified to meet the DOCSIS 1.1 and 2.0 and Euro-DOCSIS 1.0 cable modem specifications. Our cable modems are being deployed by eight of the largest cable operators based in North America. We have shipped over 1 million DOCSIS 2.0 modems since their introduction in 2002, and according to Kinetic

Strategies, Inc., the growing acceptance of our DOCSIS 2.0 product line enabled us to capture the number-three position in cable modem shipments in North America for the quarter ended September 30, 2003.

Video Products Our CherryPicker DM 6400 digital video management system utilizes advanced statistical remultiplexing technology to give cable and satellite operators unprecedented flexibility in managing their digital video content. Cable operators use CherryPickers for a variety of digital video applications, including rate shaping for advanced digital stream processing, grooming customized channel line-ups, seamlessly inserting digital advertisements for local companies and HDTV.

Terayon's strategy

Our goal is to be the leading provider of intelligent access solutions that optimize the delivery of voice, video and data for broadband service providers, primarily cable operators, on a worldwide basis. To achieve this goal, we are pursuing the following strategies:

increase our CMTS market share by exploiting our DOCSIS 2.0 leadership;

capitalize on the increasing demand for advanced video services, including HDTV and VOD, by leveraging our leadership position in the market for digital video bandwidth management products;

use our expertise in DOCSIS, IP, MPEG and RF technologies to evolve our platform into an intelligent access solution capable of more effectively provisioning, delivering and managing triple play bundled services for cable operators;

selectively enhance our CPE product portfolio to increase the value add for cable operators to offer to their subscribers; and

improve margins through focused product cost-reduction efforts and operational streamlining activities across all product lines.

History

We were founded to provide broadband cable data equipment for cable operators based on our proprietary S-CDMA technology, which forms the basis of our current technology. By 2000, when our revenues reached \$340 million, we were primarily selling proprietary-based modems and CMTSs, and we engaged in an acquisition program to expand our product offerings beyond the cable industry equipment market. With the market downturn in 2000, we refocused our business by concentrating our resources on the cable industry and the DOCSIS 2.0 standard, transitioning from proprietary-based products to standards-based products, terminating acquired businesses and writing down the value of those assets to zero. Today we primarily sell standards-based products to cable operators.

We were incorporated in California in 1993 and reincorporated in Delaware in 1998. Our principal executive headquarters are located at 4988 Great America Parkway, Santa Clara, California 95054. Our telephone number is (408) 235-5500.

The offering

| | |
|--|---|
| Shares of common stock offered by Terayon | 10,800,000 shares |
| Shares of common stock to be outstanding after this offering | 85,413,730 shares |
| Use of proceeds | We estimate that the net proceeds of this offering will be approximately \$70.5 million. We intend to use the net proceeds from this offering for general corporate purposes. See Use of Proceeds for more information regarding our intended use of the net proceeds from this offering. |
| Risk Factors | See Risk Factors beginning on page S-7 of this prospectus supplement for a description of risks that you should consider before making a decision to invest in our common stock. |

Nasdaq National Market Symbol

TERN

The number of shares of our common stock that will be outstanding after this offering is based on 74,613,730 shares outstanding as of September 30, 2003. The number of shares of our common stock that will be outstanding after the offering excludes:

26,220,518 shares of our common stock reserved for issuance under our stock option plans, of which 17,634,021 shares were outstanding as of September 30, 2003;

1,797,790 shares of our common stock reserved for issuance under our employee stock purchase plan; and

425,593 shares of our common stock issuable pursuant to outstanding warrants.

Unless otherwise noted, all information in the prospectus supplement assumes that the underwriters will not exercise their over-allotment option.

Summary consolidated financial data

The following table presents our summary consolidated financial data as of and for the three years in the period ended December 31, 2002 and as of and for the nine months ended September 30, 2003 and 2002. The summary consolidated financial data for the nine months ended September 30, 2003 and 2002 is unaudited but does include, in our opinion, all adjustments (consisting only of normal recurring adjustments) that are necessary for a fair presentation of our financial position and results of operations for these periods. Operating results for the nine months ended September 30, 2003 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2003. You should read the summary consolidated financial data set forth below in conjunction with Management's discussion and analysis of financial condition and results of operations and with our consolidated financial statements and related notes for the years ended December 31, 2002, 2001 and 2000 incorporated by reference in this prospectus supplement and the accompanying prospectus.

| (in thousands, except per share data) | Years ended December 31, | | | Nine months ended September 30, | |
|---|--------------------------|------------|------------|---------------------------------|-----------|
| | 2000 | 2001 | 2002 | 2002 | 2003 |
| (unaudited) | | | | | |
| Consolidated statements of operations data: | | | | | |
| Revenues | \$ 339,549 | \$ 279,481 | \$ 129,403 | \$ 104,100 | \$ 90,495 |
| Cost of goods sold | 289,531 | 263,117 | 100,949 | 78,340 | 70,762 |
| Gross profit | 50,018 | 16,364 | 28,454 | 25,760 | 19,733 |
| Total operating expenses | 237,495 | 779,496 | 118,037 | 94,554 | 64,851 |
| Loss from operations | (187,477) | (763,132) | (89,583) | (68,794) | (45,118) |
| Net loss | (180,767) | (563,846) | (44,213) | (23,747) | (44,338) |
| Basic and diluted net loss per share | \$ (2.95) | \$ (8.25) | \$ (0.61) | \$ (0.33) | \$ (0.60) |
| Shares used in computing basic and diluted net loss per share | 61,349 | 68,331 | 72,803 | 72,828 | 73,994 |

| | September 30, 2003 | |
|---|--------------------|--------------------------|
| | Actual | As Adjusted ¹ |
| (unaudited) | | |
| Consolidated balance sheet data: | | |
| Cash, cash equivalents and short-term investments | \$ 149,392 | \$ 219,909 |
| Working capital | 138,601 | 209,118 |
| Total assets | 217,459 | 287,976 |
| Long-term liabilities | 68,408 | 68,408 |
| Stockholders' equity | 95,663 | 166,180 |

(1) The information under "As Adjusted" reflects the receipt of the estimated net proceeds of approximately \$70,517,000 from the sale of 10,800,000 shares of common stock offered by us under this prospectus supplement based on an assumed offering price of \$6.94 per share (the last reported sale price of our common stock on the Nasdaq National Market on November 5, 2003), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Risk factors

You should carefully consider the risks described below before making an investment decision. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the following risks actually occur, our business could be harmed. In such case, the trading price of our common stock could decline, and you may lose all or part of your investment.

Risks related to our business

We have a history of losses and may continue to incur losses in the future.

It is difficult to predict our future operating results. We began shipping products commercially in June 1997, and we have been shipping products in volume since the first quarter of 1998. As of September 30, 2003, we had an accumulated deficit of \$981.5 million. We believe that we will continue to experience challenges in selling our products at a profit and continue to operate with net losses for the foreseeable future. Moreover, we have had declining revenue since 2000. In the nine months ended September 30, 2003, our revenues decreased 13% from the same period in 2002. As a result of the operating deficiencies, we have had to use available cash and cash equivalents to supplement the operation of our business. Cash used in operating activities for the nine months ended September 30, 2003 was \$57.1 million as compared to \$56.5 million used in the same period in 2002. Additionally, we generally are unable to significantly reduce our short-term expenses in order to compensate for unexpected decreases in anticipated revenues or delays in generating anticipated revenues. For example, we have commitments with some of our suppliers to purchase their products. In the past, we have been unable to use all of the products that we purchased and as a result have taken vendor cancellation charges. We may have to take additional charges in the future if we are unable to use all of the products that we purchase from our suppliers. Further, we have been experiencing and will continue to experience declining average selling prices, or ASPs, of our products. We record an inventory charge to reduce our inventory to the lower of cost or market if average selling prices fall below the cost of these products. In addition, we have significant operating lease commitments for facilities and equipment that generally cannot be cancelled in the short-term without substantial penalties.

Our business may be adversely affected by delays in, or our failure to, commercialize new products, or reduce the cost of manufacturing our current products. Moreover, given the conditions in the broadband equipment market, the profit potential of our business remains unproven.

We may experience fluctuations in our operating results and face unpredictability in our future revenues.

Our quarterly revenues have fluctuated and are likely to continue to fluctuate significantly in the future due to a number of factors, many of which are outside our control. Factors that affect our revenues include, among others, the following:

variations in the timing of orders and shipments of our products;

variations in the size of the orders by our customers and pricing concessions on volume sales;

competitive market conditions;

unpredictable sales cycles;

new product introductions by competitors or by us;

delays in our introduction of new products;

delays in our introduction of added features to our products;

delays in reducing the cost of our products;

delays in the commercialization of products that are competitive in the marketplace;

delays in our receipt of and cancellation of orders forecasted by customers;

variations in capital spending budgets of cable operators and other broadband service providers;

international conflicts, including the continuing conflict in Iraq and acts of terrorism, and the impact of adverse economic, market and political conditions worldwide; and

ability of our products to be qualified or certified as meeting industry specifications.

A variety of factors affecting our gross margin include, among others, the following:

the sales mix of our products;

the volume of products manufactured;

the type of distribution channel through which we sell our products;

the ASPs of our products;

the costs of manufacturing our products; and

the effectiveness of our cost reduction measures.

We often recognize a substantial portion of our revenues in the last month of the quarter. We establish our expenditure levels for product development and other operating expenses based on projected sales levels and expenses are relatively fixed, particularly in the short-term. For example, a significant percentage of these operating expenses are fixed due to operating leases for our facilities and equipment. Also, we have commitments with some of our suppliers to purchase their products. As of September 30, 2003, \$53.0 million of purchase obligations were outstanding. Accordingly, variations in timing of sales can cause significant fluctuations in operating results. In addition, because a significant portion of our business is derived from orders placed by a limited number of large customers, the timing of such orders can also cause significant fluctuations in our operating results. Our expenses for any given quarter are typically based on expected sales and if sales are below expectations, our operating results may be adversely impacted by our inability to adjust spending to compensate for the shortfall. Moreover, our research and development expenses fluctuate in response to new product development, changing industry requirements and customer demands.

Additionally, the unit ASPs of our products declined considerably in 2002, have continued to decline in 2003, and we anticipate that unit ASPs of our products may continue to decline in the future. This has caused and will continue to cause a decrease in our gross margins if we are unable to off-set the decline in ASPs with cost reduction measures. In addition, the gross margins we realize from the sale of our products are affected by the mix of product sales between higher margin, lower volume head-end equipment, such as CMTSs, and lower margin,

higher volume CPE, such as cable modems. In 2003, we expect that sales of our low-margin CPE will continue to make up a significant portion of our revenues.

We are dependent on a small number of customers and our business could be harmed by the loss of any of these customers or reductions in their purchasing volumes.

Our customers have undergone and continue to undergo significant consolidation in both North America and internationally, as a limited number of cable operators control an increasing number of systems. For example, the top ten cable operators in the United States own and operate systems that service approximately 82% of homes that receive cable services in the United States. As a result of the consolidation among cable operators, our revenue has been and will continue to be dependent on sales to the few leading cable operators worldwide. For example, three of our customers accounted for 10% or more of total revenues (29%, 13% and 13%) for the three months ended September 30, 2003. Two of our customers accounted for 10% or more of total revenues (25% and 14%) for the three months ended September 30, 2002. Three of our customers accounted for 10% or more of total revenues (20%, 17% and 12%) for the nine months ended September 30, 2003. One of our customers accounted for 10% or more of total revenues (32%) for the nine months ended September 30, 2002. We may not succeed in attracting new customers as many of our potential customers have pre-existing relationships with our current or potential competitors and the continued consolidation of the cable industry reduces the number of potential customers. To attract new customers, we may be faced with intense price competition, which may affect our gross margins. Our sales are made on a purchase order or system contract basis, and none of our customers has entered into a long-term agreement requiring it to purchase our products. Moreover, we do not typically require our customers to purchase a minimum quantity of our products, and our customers can generally cancel their orders on short notice without significant penalties. The loss of any of our customers can have a material adverse effect on our results of operations. Further, any reduction in orders from a given customer can likewise have a material adverse effect on our results of operations.

The sales cycle for certain of our products is lengthy, which makes forecasting of our customer orders and revenue difficult.

The sales cycle for certain of our products, such as our CMTS, is lengthy, often lasting nine months to more than a year. Our customers generally conduct significant technical evaluations, including customer trials, of our products as well as competing products prior to making a purchasing decision. In addition, purchasing decisions may also be delayed because of a customer's internal budget approval processes. Because of the lengthy sales cycle and the size of customer orders, if orders forecasted for a specific customer for a particular period do not occur in that period, our revenues and operating results for that particular quarter could suffer. Moreover, a portion of our expenses related to an anticipated order is fixed and difficult to reduce or change, which may further impact our revenues and operating results for a particular period.

There are many risks associated with our participation in industry standards.

In connection with the development of the DOCSIS 2.0 specification by Cable Television Laboratories, Inc., a cable industry consortium that establishes cable technology standards and administers compliance testing, or CableLabs, we entered into an agreement with CableLabs whereby we licensed to CableLabs on a royalty-free basis any of our intellectual property

rights, including rights to our proprietary S-CDMA technology, to the extent that such rights may be asserted against a party desiring to design, manufacture or sell DOCSIS based products, including DOCSIS 2.0 based products. This license agreement grants to CableLabs the right to sublicense our intellectual property, including our intellectual property rights in our S-CDMA patents, to manufacturers that compete with us in the marketplace for DOCSIS based products. As a result of this license to CableLabs, our competitors that produce DOCSIS-based products have access to our technology without having to pay us any royalties or other compensation for the use of our technology. As a result of our contribution of technology to the DOCSIS intellectual property pool, we may have foregone significant revenue from the potential licensing of our proprietary technology, and we may be unable to recoup the investment in the research and development efforts to develop the intellectual property contributed to the DOCSIS technology pool.

Additionally, the agreement that we signed with CableLabs to participate in the DOCSIS intellectual property pool may make it difficult for us to enforce our intellectual property rights against other companies. Certain cable equipment vendors manufacture and sell DOCSIS based and DOCSIS certified and qualified products without sublicensing from CableLabs the technology in the CableLabs intellectual property pool. Due to the interests of cable operators in having as many equipment vendors as possible, we may feel constrained by competitive pressures from pursuing the enforcement of our intellectual property rights against our competitors that have not entered into sublicenses with CableLabs. Moreover, if we seek to enforce our intellectual property rights against other equipment manufacturers that access technology from the CableLabs intellectual property pool, our license to the technology in the pool may be jeopardized. Certain contributors of technology to the CableLabs intellectual property pool are our competitors and may elect to revoke our license to their technology if we attempt to enforce our intellectual property rights against them.

We may have lost any competitive advantage that our proprietary S-CDMA technology may have provided us in the marketplace by licensing it to CableLabs, and we may face increased competition because our competitors have the ability to incorporate our technology into their products. We believe that this increased competition could come from existing competitors or from new competitors who enter the market and that such competition is likely to result in lower product ASPs, which could harm our revenues and gross margins. Additionally, because our competitors will be able to incorporate our technology into their products, our current customers may choose alternate suppliers or choose to purchase DOCSIS-compliant products from multiple suppliers. We may be unable to effectively compete with the other vendors if we cannot produce DOCSIS compliant cable products more quickly or at a lower cost than our competitors.

DOCSIS specifications have not yet been accepted in Europe and Asia, although an increasing number of Asian cable operators are requiring product to be DOCSIS qualified or certified. An alternate specification for cable products, called the Euro-DOCSIS specification, has been formalized by TComLabs, a cable technology consortium of European cable operators, and some European and Asian cable operators have embraced it. We intend to develop and sell products that comply with the Euro-DOCSIS specification, which may require the contribution of certain of our technologies, including our proprietary S-CDMA technology, to the Euro-DOCSIS specification. We may be unsuccessful in these efforts, and even if we are successful, we may face some of the same risks associated with our contribution of intellectual property to CableLabs DOCSIS intellectual property pool.

We need to certify and qualify our new and existing products to meet industry specifications in order to remain competitive.

Major cable operators worldwide have endorsed the DOCSIS, Euro-DOCSIS and PacketCable specifications and rarely purchase equipment that is not certified or qualified as compliant with these specifications. Cable operators have chosen to purchase only products meeting industry specifications because the specifications enable interoperability among products from multiple vendors, which leads to increased competition among equipment manufacturers and generally lowers product ASPs. Consequently, our future success depends on our ability to compete effectively in this marketplace by developing, marketing and selling products that are certified and qualified to industry standards in a timely fashion and in a cost-effective manner.

There is no guarantee that our products will be DOCSIS, EuroDOCSIS or PacketCable certified or qualified. If we are unable to certify or qualify our products as DOCSIS, EuroDOCSIS or PacketCable compliant in a timely manner, we may be unable to sell our products and may lose some or all of any advantage we might otherwise have had, and our future operating results may be adversely affected.

Although we sell certified and qualified products, there have been and may continue to be instances where our existing customers and potential new customers elect to purchase products from one or more of our competitors rather than from us. In response to this situation, we have reduced our prices and continue to experience customer demand to further reduce our prices in order to promote sales of our current products. This has had and may continue to have an adverse impact on our revenues, operating results and gross margin.

Developing products to meet these various industry specifications has several risks. The first is the cost and effort to engineer standards-based products and to then prepare them for compliance testing. Not only do we have to certify or qualify new products, but any of our currently certified or qualified products must be re-certified or re-qualified should they be changed in any way. Second, there is no guarantee that these products will be certified or qualified as meeting these specifications in a timely fashion, if ever. Because most cable operators purchase only those products that have been certified or qualified as meeting these specifications, it is highly unlikely that we will be able to sell our products until they achieve certification or qualification, which can be a lengthy process. As a result, we may incur significant research and development expenses to develop new products that may not receive certification or qualification and we cannot recoup the costs of these research and development expenses by marketing uncertified or unqualified products. Moreover, a consequence of cable operators only purchasing products certified or qualified as meeting industry specifications is the increased competition between equipment vendors, which has resulted in a steady and ongoing decline in equipment prices as vendors compete for cable operators' business. Third, there is no guarantee that we will be able to support all future cable industry specifications, which will likely have an adverse impact on our future revenues.

Average selling prices of broadband equipment continue to decline, which is decreasing our gross margins.

The broadband equipment market has been characterized by erosion of product ASPs. We expect this erosion to continue. The ASPs for our products are likely to continue to decline due to competitive pricing pressures, promotional programs and customers possessing strong negotiating positions and who require price reductions as a condition of purchase. In addition, we believe that the widespread adoption of industry specifications, such as the DOCSIS and

EuroDOCSIS specifications, is further eroding ASPs as cable modems and other similar CPE become commodity products. Decreasing ASPs could result in decreased revenues, even if the number of units sold increases. Decreasing ASPs may also require us to sell our products at much lower gross margin than in the past, and in fact, we may sell products at a loss. The primary reason that our gross profits have declined year-over-year is the decline in product ASPs. As a result, we may experience substantial period-to-period fluctuations in future revenue, gross margin and operating results due to ASP erosion. Therefore, we must continue to develop and introduce on a timely basis and a cost-effective manner new products or next-generation products with enhanced functionalities that can be sold at higher gross margins. Our failure to do this could cause our revenues and gross margin to decline further.

We must achieve cost reductions to attain profitability.

As product ASPs and revenue have declined in recent years, we have not sufficiently decreased our costs, including operating expenses and the costs associated with our products, to offset declining ASPs and revenue. This has resulted in increased losses and thus making it difficult for us to attain profitability. We have experienced a decrease in revenue, which was, in large part, due to declining product ASPs and a drop in the sale of CMTSs due to our transition from a proprietary platform to the DOCSIS standards platform. In order to achieve profitability, we must significantly increase our revenues, reduce the cost of our products and maintain or reduce our operating expenses.

We have made several attempts to lower our operating expenses. Although we have implemented expense reduction and restructuring plans in the past, including the latest restructuring in March 2003, that have focused on cost reductions and operating efficiencies, we have not been successful in lowering our operating expenses to keep pace with the decline in revenues. We cannot be certain that our future efforts to implement operating expense reduction will be successful. A large portion of our expenses, including rent and operating lease expenditures, are fixed and difficult to reduce or change. Accordingly, if our revenue does not meet our expectations, we may not be able to adjust our expenses quickly enough to compensate for the shortfall in revenue. In that event, our business, financial condition and results of operations could be materially and adversely affected.

As product ASPs rapidly decline, we need to reduce the cost of our products through design and engineering changes. We may not be successful in redesigning our products, and, even if we are successful, our efforts may be delayed or our redesigned products may contain significant errors and product defects. In addition, any redesign may not result in sufficient cost reductions to allow us to reduce significantly the list price of our products or improve our gross margin. Reductions in our product costs will require us to use lower-priced components that are highly integrated in future products and may require us to enter into high volume or long-term purchase or manufacturing agreements. Volume purchase or manufacturing agreements may not be available on acceptable terms, if at all, and we could incur significant expenses without related revenues if we cannot use the products or services offered by such agreements. We have incurred significant cancellation charges related to volume purchase and manufacturing agreements in the past and may incur such charges in the future.

Broadband services delivered by cable operators have not achieved widespread market acceptance, and other competing service providers exist.

Our success will depend upon the widespread acceptance of broadband services delivered by cable operators. The markets for these services are growing but are not fully developed.

Additionally, these markets may not grow as cable operators have a limited amount of available bandwidth over which they can offer new services, such as high-speed Internet access, HDTV, VOD and telephony. Cable operators may elect not to provide any or all of these new services to their customers or may not aggressively market these services to their customers. If cable operators elect not to deploy such new services or if customers elect not to subscribe to such services, it may affect our ability to sell products to cable operators as their existing equipment may meet their current infrastructure demands. We depend on cable operators to provide new services and maintain their infrastructure in such a manner that allows us to continue to sell products to them.

Cable operators must also compete with other service providers in the delivery of services to their customers. Telecoms and satellite operators are aggressively competing with the cable industry to deliver broadband services via digital subscriber lines, or DSL, or satellite broadcast technologies. We cannot accurately predict the future growth rate or the ultimate size of the market for broadband services delivered via cable. The success of telecoms and satellite operators may slow or hamper the continued acceptance of cable operators in delivering broadband services, which in turn may impact demand for our products by cable operators.

We need to develop additional distribution channels to market and sell our products.

The vast majority of our sales are to large cable operators. However, we currently have limited access to smaller or geographically diverse cable operators. Although we intend to establish strategic relationships with leading distributors worldwide to access these customers, we may not succeed in establishing these relationships. Even if we do establish these relationships, the distributors may not succeed in marketing our products to their customers. Some of our competitors have already established long-standing relationships with these cable operators that may limit our and our distributors' abilities to sell our products to those customers. Even if we were to sell our products to those customers, it would likely not be based on long-term commitments, and those customers would be able to terminate their relationships with us at any time without significant penalties.

In addition, we anticipate that the North American cable modem market may at some point shift to a consumer purchase model. If this occurs, our success will depend on our ability to effectively sell our products in the consumer market. We may not have the capital required or the necessary personnel or expertise to develop these distribution channels. Also, some of our competitors, including Motorola and Thomson Consumer Electronics, have well-established retail distribution capabilities and existing brands with market acceptance that would provide them with a significant competitive advantage.

We depend on cable industry capital spending for a substantial portion of our revenue and any decrease or delay in capital spending by cable operators would negatively impact our resources, operating results and financial condition.

Historically, almost all of our sales had been derived from sales to cable operators, and we expect these sales to constitute a significant portion of net sales for the foreseeable future. Demand for our products will depend on the magnitude and timing of capital spending by

cable operators. These capital spending patterns are dependent on a variety of factors including:

- the availability of financing;
- annual budget cycles, as well as the typical reduction in upgrade projects during the winter months;
- the status of federal, local and foreign government regulation and deregulation of the telecommunications industry;
- overall demand for broadband services and the acceptance of new data, video and voice services;
- evolving industry specifications and network architectures;
- competitive pressures (including the availability of alternative data transmission and access technologies);
- discretionary consumer spending patterns; and
- general economic conditions.

In recent years, the cable industry has been characterized by consolidation. We cannot predict the effect, if any, that such consolidation will have on overall capital spending patterns by cable operators. The effect on our business of further industry consolidation also is uncertain.

The timing of deployment of our equipment can be subject to a number of other risks, including the availability of skilled engineering and technical personnel, the availability of other equipment such as fiber optic cable and the need for local zoning and licensing approvals. We believe that changes in our customers' deployment plans have, and may in the future delay, the receipt of new orders. Since the majority of our sales have been to relatively few customers, a delay in equipment deployment at any one customer has in the past and could have a material adverse effect on our sales in a particular quarter.

We may fail to accurately forecast customer demand for our products.

The nature of the cable industry makes it difficult for us to accurately forecast demand for our products. Our inability to forecast accurately the actual demand for our products may result in too much or too little supply of products or an over/under capacity of manufacturing or testing resources at any given point in time. The existence of any one or more of these situations could have a negative impact on our business, operating results or financial condition. We had purchase obligations of approximately \$53.0 million as of September 30, 2003, primarily to purchase materials and components used to manufacture our products. We must fulfill these obligations even if demand for our products is lower than we anticipate.

We may not be able to manage expenses and inventory risks associated with meeting the demand of our customers.

From time to time, we receive indications from our customers as to their future plans and requirements to ensure that we will be prepared to meet their demand for our products. If actual orders differ materially from these indications, our ability to manage inventory and expenses may be affected. In addition, if we fail to meet customers' supply expectations, we may lose business from such customers. If we enter into purchase commitments to acquire

materials, or expend resources to manufacture products and such products are not purchased by our customers, our business and operating results could suffer.

We may have financial exposure to litigation.

We and/or our directors and officers are defendants in a number of lawsuits, including securities litigation lawsuits. As a result, we may have financial exposure to litigation as a defendant and because we are obligated to indemnify our officers and directors for certain actions taken on our behalf.

In order to limit financial exposure arising from litigation and/or our obligation to indemnify our officers and directors, we have historically purchased directors and officers insurance, or D&O Insurance. However, the availability of D&O Insurance is becoming more difficult for companies to attain as a number of insurance underwriters no longer offer D&O Insurance and the remaining insurance underwriters offering D&O Insurance have significantly increased the premiums of such coverage. In recent years, we have experienced a significant increase in the cost of our D&O Insurance, and there can be no assurance that D&O Insurance will be available to us in the future or, if D&O Insurance is available, it may be prohibitively expensive. Additionally, some insurance underwriters who offered D&O Insurance in the past have been placed into liquidation or may be, at some future point, placed into liquidation. In October 2001, one of the insurance underwriters from which we purchased D&O Insurance, Reliance Insurance Co., or Reliance, was placed into liquidation by the state of Pennsylvania. Reliance was the underwriter for one excess layer of our D&O Insurance for the period covering the claims made against us and our officers in the pending securities litigation. Because Reliance is in liquidation, we will be responsible for the amount insured under the Reliance policy, which is approximately \$2.5 million.

We are dependent on key third-party suppliers and any failure by them to deliver components could limit our ability to satisfy customer demand.

We manufacture all of our products using components or subassemblies procured from third-party suppliers. Some of these components are available from a sole source and others are available from limited sources. A majority of our sales are from products containing one or more components that are available only from sole source suppliers. Additionally, some of our components are custom parts that are produced to our specifications, and it may be difficult to move the manufacturing of such components from one vendor to another vendor.

Any interruption in the operations of our vendors of sole source or custom product parts could adversely affect our ability to meet our scheduled product deliveries to customers. If we are unable to obtain a sufficient supply of components from our current sources, we could experience difficulties in obtaining alternative sources or in altering product designs to use alternative components. Resulting delays or reductions in product shipments could damage customer relationships and expose us to potential damages that may arise from our inability to supply our customers with products. Further, a significant increase in the price of one or more of these components could harm our gross margin or operating results. Additionally, we attempt to limit this risk by maintaining safety stocks of these components, subassemblies and modules. As a result of this investment in inventories, we have in the past and in the future may be subject to risk of excess and obsolete inventories, which could harm our business. In this regard, our gross margins and operating results could be adversely affected by excess and obsolete inventory.

We may be unable to migrate to new semiconductor process technologies successfully or on a timely basis.

Our future success will depend in part upon our ability to develop products that utilize new semiconductor process technologies. These technologies change rapidly and require us to spend significant amounts on research and development. We continuously evaluate the benefits of redesigning our integrated circuits using smaller geometry process technologies to improve performance and reduce costs. The transition of our products to integrated circuits with increasingly smaller geometries will be important to our competitive position. Other companies have experienced difficulty in migrating to new semiconductor processes and, consequently, have suffered reduced yields, delays in product deliveries and increased expense levels. Moreover, we depend on our relationship with our third-party manufacturers to migrate to smaller geometry processes successfully.

Our ability to directly control product delivery schedules and product quality is dependent on third-party contract manufacturers.

Most of our products are assembled and tested by contract manufacturers using testing equipment that we provide. As a result of our dependence on these contract manufacturers for the assembly and testing of our products, we do not directly control product delivery schedules or product quality. Any product shortages or quality assurance problems could increase the costs of manufacturing, assembling or testing our products. In addition, as manufacturing volume increases, we will need to procure and assemble additional testing equipment and provide it to our contract manufacturers. The production and assembly of testing equipment typically requires significant lead times. We could experience significant delays in the shipment of our products if we are unable to provide this testing equipment to our contract manufacturers in a timely manner.

We are dependent upon international sales and there are many risks associated with international operations.

We expect sales to customers outside of the United States to continue to represent a significant percentage of our revenues for the foreseeable future. For the three months ended September 30, 2003 and September 30, 2002, approximately 56% and 51%, respectively, of our net revenues were from customers outside of the U.S. For the nine months ended September 30, 2003 and September 30, 2002, approximately 47% and 74%, respectively, of our net revenues were from customers outside of the U.S. International sales are subject to a number of risks, including the following:

changes in foreign government regulations and communications standards;

import and export license requirements, tariffs and taxes;

trade barriers;

difficulty in protecting intellectual property;

difficulty in collecting accounts receivable;

currency fluctuations;

the burden of complying with a wide variety of foreign laws, treaties and technical standards;

difficulty in staffing and managing foreign operations; and

political and economic instability.

If our customers are affected by currency devaluations or general economic downturns, such as the economic downturns affecting many Asian, European and Latin American economies, their ability to purchase our products could be reduced significantly. Payment cycles for international customers typically are longer than those for customers in North America.

While we generally invoice our foreign sales in U.S. dollars, we invoice the majority of our sales in Europe in Euros. Since we have also elected to take payment in Euros from our customers in Europe and may elect to take payment in other foreign currencies in the future, we are exposed to losses as the result of foreign currency fluctuations. Additionally, we have an Israel based operation whose expenses are denominated in Israeli NIS. We currently do not engage in foreign currency hedging transactions. We may in the future choose to limit our exposure by the purchase of forward foreign exchange contracts or through similar hedging strategies. No currency hedging strategy can fully protect against exchange-related losses. In addition, if the relative value of the U.S. dollar in comparison to the currency of our foreign customers should increase, the resulting effective price increase of our products to those foreign customers could result in decreased sales.

Furthermore, foreign countries may decide to prohibit, terminate or delay the construction of new cable infrastructures for a variety of reasons. These reasons include environmental issues, economic downturns and availability of favorable pricing for other communications services or the availability and cost of related equipment. Any such action by foreign countries would reduce the market for our products.

Our business may be affected by conditions in Israel.

We have significant operations in Israel. Our operations in Israel consist primarily of research and development, and to a lesser extent sales and manufacturing. Revenues generated by our business in Israel were \$0.6 million for the three months ending September 30, 2003 and September 30, 2002, respectively. Revenues generated by our business in Israel were \$1.4 million and \$0.9 million for the nine months ending September 30, 2003 and September 30, 2002, respectively. Our research and development operations may be significantly affected by conditions in Israel. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors and a state of hostility, varying in degree and intensity, has led to security and economic problems for Israel. Hostilities within Israel have continued to escalate over the past year, which could disrupt some of our operations. We could be adversely affected by any major hostilities involving Israel. As a result of the hostilities and unrest presently occurring within Israel, the future of the peace efforts between Israel and its Arab neighbors is uncertain. A number of our employees based in Israel are currently obligated to perform annual military reserve duty and are subject to being called to active duty at any time under emergency circumstances. We cannot assess the full impact of these requirements and the hostilities on our workforce, business or operations if conditions should change, and we cannot predict the effect of any expansion or reduction of these obligations or the hostilities.

We may be unable to provide adequate customer support.

Our ability to achieve our planned sales growth and retain current and future customers will depend in part upon the quality of our customer support operations. Our customers generally

require significant support and training with respect to our products, particularly in the initial deployment and implementation stages. Spikes in demand of our support services may cause us to be unable to serve our customers. We may not have adequate personnel to provide the levels of support that our customers may require during initial product deployment or on an ongoing basis especially during peak periods. Our inability to provide sufficient support to our customers could delay or prevent the successful deployment of our products. In addition, our failure to provide adequate support could harm our reputation and relationships with our customers and could prevent us from selling product to existing customers or gaining new customers.

Our industry is highly competitive with many larger and more established competitors.

The market for our products is extremely competitive and is characterized by rapid technological change. Our direct competitors include Cisco Systems, ADC, Arris, BigBand Networks, Motorola, Thomson Consumer Electronics (which markets products under the brand name RCA), Scientific-Atlanta and Toshiba. Additionally, we face competition from early stage companies with access to significant financial backing that may improve existing technologies or develop new technologies. The principal competitive factors in our market include the following:

- product performance, features and reliability;
- price;
- size and stability of operations;
- breadth of product line;
- sales and distribution capabilities;
- technical support and service;
- relationships with providers of service providers; and
- compliance with industry standards.

Some of these factors are outside of our control. Conditions in the market could change rapidly and significantly as a result of technological advancements. The development and market acceptance of alternative technologies could decrease the demand for our products or render them obsolete. Our competitors may introduce products that are less costly, provide superior performance or achieve greater market acceptance than our products.

Many of our current and potential competitors have greater financial, technical, marketing, distribution, customer support and other resources, as well as better name recognition and access to customers than we do. The widespread adoption of DOCSIS and other industry specifications has and is likely to continue to cause increased price competition. We believe that the adoption of these specifications has resulted in and is likely to continue to result in lower ASPs for our products. Any increased price competition or reduction in sales of our products, particularly our higher margin head-end products, has resulted and will continue to result in decreased revenue and downward pressure on our gross margin. These competitive pressures have and are likely to continue to adversely impact our business.

We are dependent on key personnel.

Due to the specialized nature of our business, we are highly dependent on the continued service of, and on the ability to attract and retain, qualified engineering, sales, marketing and senior management personnel. The competition for some of these personnel is intense. The loss of any of these individuals may harm our business. In addition, if we are unable to hire qualified personnel as needed, we may be unable to adequately manage and grow our business.

Highly skilled employees with the education and training that we require, especially employees with significant experience and expertise in video, data networking and radio frequency design, are in high demand. We may be unable to continue to attract and retain qualified personnel necessary for the development of our business. We do not have key person insurance coverage for the loss of any of our employees. Any officer or employee can terminate his or her relationship with us at any time. Our employees are not bound by non-competition agreements with us.

Our business is subject to the risks of product returns, product liability and product defects.

Products like ours are very complex and can frequently contain undetected errors or failures, especially when first introduced or when new versions are released. Despite testing, errors may occur. The occurrence of errors could result in product returns and other losses to us and/or our customers. This occurrence could result in the loss of or delay in market acceptance of our products. We have limitation of liability provisions in our standard terms and conditions of sale. However, these terms and conditions may not be effective as a result of federal, state or local laws or ordinances or unfavorable judicial decisions in the United States or other countries. The sale and support of our products entails the risk of product liability claims. In addition, any failure by our products to properly perform could result in claims against us by our customers. We maintain insurance to protect against certain claims associated with the use of our products, but our insurance coverage may not adequately cover any claim asserted against us. In addition, even claims that ultimately are unsuccessful could result in our expenditure of funds in litigation and divert management's time and other resources.

We may be unable to adequately protect or enforce our intellectual property rights.

We rely on a combination of patent, trade secret, copyright and trademark laws and contractual restrictions to establish and protect proprietary rights in our products. Even though we seek to establish and protect proprietary rights in our products, there are risks. We cannot be assured that any patent, trademark, copyright or other intellectual property rights owned by us will not be invalidated, circumvented or challenged, that such intellectual property rights will provide competitive advantages to us or that any of our pending or future patent applications will be issued with the scope of the claims sought by us, if at all. We cannot be assured that others will not develop technologies that are similar or superior to our technology, duplicate our technology or design around the patents that we own. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in certain foreign countries in which we do business or may do business in the future.

Our pending patent applications may not be granted. Even if they are granted, the claims covered by any patent may be reduced from those included in our applications. Any patent might be subject to challenge in court and, whether or not challenged, might not be broad

enough to prevent third parties from developing equivalent technologies or products without a license from us.

We also believe that companies may be increasingly subject to infringement claims as distressed companies and individuals attempt to generate cash by enforcing their patent portfolio against a wide range of products. We, as well as our customers, have received letters from companies claiming that our technology and products infringe their patents. We have consulted with our patent counsel and are in the process of reviewing the allegations made by such companies. There can be no assurance that, if the issues were to be submitted to a court, such court would not find that our products infringe the patents, nor that the companies will not continue to allege infringement. If we are found to have infringed such company's patents, we could be subject to substantial damages and/or an injunction preventing us from conducting our business. Additionally, there can be no assurance that other third parties will not assert infringement claims against us in the future. Any such claim, whether meritorious or not, could be time-consuming, result in costly litigation, cause product shipment delays or require us to enter into royalty or licensing agreements. Such royalty or licensing agreements may not be available on terms acceptable to us or at all, which could have a material adverse effect upon our business, operating results and financial condition.

We believe that the future success of our business will depend on our ability to translate the technological expertise and innovation of our employees into new and enhanced products. We have entered into confidentiality and invention assignment agreements with our employees, and we enter into non-disclosure agreements with many of our suppliers, distributors and appropriate customers so as to limit access to and disclosure of our proprietary information. These contractual arrangements, as well as statutory protections, may not prove sufficient to prevent misappropriation of our trade secrets or technology or deter independent third-party development of similar technologies. In addition, the laws of some foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States. We may, in the future, take legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively effect our business, operating results, financial position and liquidity.

CableLabs DOCSIS 2.0 specification includes two modulation techniques, S-CDMA and Advanced Time Division Multiple Access, or A-TDMA. In connection with the development of the DOCSIS 2.0 specification by CableLabs, we entered into an agreement with CableLabs, on a royalty-free basis, whereby we licensed to CableLabs many of our intellectual property rights to the extent that such rights may be asserted against a party desiring to design, manufacture or sell DOCSIS-based products, including DOCSIS 2.0-based products. This license agreement grants to CableLabs the right to sublicense our intellectual property, including our intellectual property rights in our S-CDMA patents, to manufacturers that compete with us in the marketplace for DOCSIS based products.

We pursue the registration of our trademarks in the United States and have applications pending to register several of our trademarks throughout the world. However, the laws of certain foreign countries might not protect our products or intellectual property rights to the same extent as the laws of the United States. Effective trademark, copyright, trade secret and patent protection may not be available in every country in which our products may be manufactured, marketed or sold.

Our business and our customers are subject to regulation.

Our business and customers are subject to varying degrees of regulation by regulatory bodies in the United States and foreign countries. Although these regulations have not materially restricted our operations to date or the operations of our customers, future regulations applicable to our business or customers could be adopted. The adoption of future regulations may adversely affect our customers, our ability to sell our products and therefore our operating results.

Our products are subject to safety approvals and certifications.

In the United States, our products are required to meet certain safety requirements. For example, we are required to have our products certified by Underwriters Laboratory in order to meet federal requirements relating to electrical appliances to be used inside the home. Outside the United States, our products are subject to the regulatory requirements of each country in which the products are manufactured or sold. These requirements are likely to vary widely. We may be unable to obtain on a timely basis or at all the regulatory approvals that may be required for the manufacture, marketing and sale of our products.

We are vulnerable to earthquakes, disruptions to our power supply, labor issues and other unexpected events.

Our corporate headquarters, as well as the majority of our research and development activities and some manufacturing operations are located in California, an area known for seismic activity. In addition, the operations of some of our key suppliers are also located in this area and in other areas known for seismic activity, such as Taiwan. An earthquake, or other significant natural disaster, could result in an interruption in our business or the operations of one or more of our key suppliers. Our California operations may also be subject to disruptions in power supply, such as occurred in 2001. Our business may also be impacted by labor issues related to our operations and/or those of our suppliers, service providers, or customers. Such an interruption could harm our operating results. We may not carry sufficient business interruption insurance to compensate for any losses that we may sustain as a result of any natural disasters or other unexpected events.

Our indebtedness could adversely affect our financial condition; we may incur substantially more debt.

As of September 30, 2003, we had approximately \$68.4 million of long-term obligations. This level of indebtedness may adversely affect our stockholders by:

making it more difficult for us to satisfy our obligations with respect to our indebtedness;

increasing our vulnerability to general adverse economic and industry conditions;

limiting our ability to obtain additional financing;

requiring the dedication of a substantial portion of our cash flow from operations to the payment of principal of, and interest on, our indebtedness, thereby reducing the availability of our cash flow to fund our growth strategy, working capital, capital expenditures and other general corporate purposes;

limiting our flexibility in planning for, or reacting to, changes in our business and the industry; and

placing us at a competitive disadvantage relative to our competitors with less debt.

We may incur substantial additional debt in the future. The terms of our outstanding debt do not fully prohibit us from doing so. If new debt is added to our current levels, the related risks described above could intensify.

Threatened terrorist attacks may negatively impact all aspects of our operations, revenues, costs and stock price.

The events of September 11, 2001, as well as future events occurring in response to or in connection with them, including, without limitation, future terrorist attacks against United States targets, or military or trade disruptions impacting our domestic or foreign suppliers of components required for the manufacturing of our products, may cause delays or losses of customer orders. More generally, any of these events could cause consumer confidence and spending to decrease or result in increased volatility in the United States and worldwide financial markets. They also could result in economic recession in the United States or abroad. Any of these occurrences could have a significant impact on our operating results, revenues and costs.

We may not be able to raise additional funds to continue operating our business.

Our main source of liquidity continues to be our unrestricted cash on hand. In addition and as a result of our history of operating losses, we expect to continue to use our unrestricted cash to fund operating losses in the future. We believe that our current unrestricted cash on hand should be adequate to fund our working capital needs through at least the next twelve months. However, if our operating losses are more severe than expected or continue longer than expected, we may find it necessary or desirable to seek other sources of financing to support our capital needs and provide available funds for working capital. Given the capital markets, there are few sources of financing available to us. Commercial bank financing may not be available to us on acceptable terms. Accordingly, any plan to raise additional capital, if available to us, would likely involve an equity-based or equity-linked financing, such as the issuance of convertible debt, common stock or preferred stock, which would be dilutive to our stockholders. If we are unable to procure additional working capital, as necessary, we may be unable to continue operations.

Our restructuring efforts could result in the erosion of employee morale, legal actions against us and management distractions and could impair our ability to respond rapidly to growth opportunities in the future.

As a result of the significant economic downturn and the related uncertainties in the technology sector, we have implemented a number of restructuring plans, including the most recent in March 2003, which has resulted in personnel reduction. These reductions could result in an erosion of morale and affect the focus and productivity of our remaining employees, including those directly responsible for revenue generation, which in turn may affect our revenue in the future. Additionally, employees directly affected by the reductions may seek future employment with our business partners, customers or competitors. Although all employees are required to sign a proprietary information agreement with us at the time of hire, there can be no assurances that the confidential nature of our proprietary information will be maintained in the course of such future employment. Our employees are not bound by

non-competition agreements with us. Additionally, we may face wrongful termination, discrimination, or other claims from employees affected by the reduction related to their employment and termination. We could incur substantial costs in defending ourselves or our employees against such claims, regardless of the merits of such actions. Furthermore, such matters could divert the attention of our employees, including management, away from our operations, harm productivity, harm our reputation and increase our expenses. We cannot assure you that our restructuring efforts will be successful, and we may need to take additional restructuring efforts, including additional personnel reduction, in the future.

We may dispose of existing product lines, which may adversely impact our future results.

On an ongoing basis, we evaluate our various product offerings in order to determine whether any should be discontinued or, to the extent possible, divested. Moreover, the worldwide downturn in the telecommunications industry led us to reassess our business strategy, which in turn caused us to discontinue investment in certain product lines. Specifically, we have reduced our investment in the telecom and satellite spaces, sold our Miniplex product line, and shutdown our Mainsail product line. Beginning in July 2003, we entered into two transactions to further decrease our telecom business. In July 2003, we discontinued our Mainsail line of products and entered into an agreement with a third party to supply warranty services for the Mainsail products. In July 2003, we entered into an agreement with Verilink Corporation, or Verilink, to sell certain telecom assets to Verilink, supply Verilink certain telecom inventory, and assign all telecom warranty obligations to Verilink with the exception of \$2.4 million, which we will continue to be responsible for.

We cannot assure you that we correctly forecasted the right product lines to discontinue or that our decision to discontinue various investments and product lines is prudent if market conditions change. In addition, we cannot assure you that the discontinuance of various product lines will reduce our operating expenses. Furthermore, future plans to discontinue existing product lines entail various risks, including the risks that we will not be able to find a buyer for a product line or the purchase price obtained will not be equal to the book value of the assets for the product line.

We need to develop and introduce new and enhanced products in a timely manner to remain competitive.

The markets in which we operate are characterized by rapidly changing technologies, evolving industry standards, frequent new product introductions and relatively short product life. The pursuit of necessary technological advances and the development of new products require substantial time and expense. For example, we made ten acquisitions during the period between 1999 and 2000. Due to various economic conditions, none of the products from our acquired businesses have achieved the level of market acceptance that was forecasted at the time of their acquisitions. Additionally, certain product groups have not achieved the level of technological development needed to be marketable or to expand the market. As a result, we recorded an aggregate of approximately \$576.8 million related to impairment charges and write-down of in-process research and development related to the acquired technologies, both of which negatively impacted our operating results.

To compete successfully in the markets in which we operate, we must design, develop, manufacture and sell new or enhanced products that provide increasingly higher levels of performance and reliability. However, we may not be able to successfully develop or introduce these products, if our products are not (i) cost-effective, (ii) brought to market in a timely

manner, (iii) in accordance with evolving industry standards and architecture or (iv) fail to achieve market acceptance. There is no assurance that the technologies we are currently developing or intend to develop will achieve feasibility, or that even if we are successful, the developed product will be accepted by the market. We may not be able to recover the costs of existing and future product developments and our failure to do so may materially and adversely impact our business, financial condition and results of operations.

We are exposed to the credit risk of our customers and to credit exposures in weakened markets, which could result in material losses.

Most of our sales are on an open credit basis, with payment terms of 30 to 60 days typically in the United States, and because of local customs or conditions, longer in some markets outside the United States. Beyond our open credit arrangements, we have also experienced a request for customer financing and facilitation of leasing arrangements, which we have not provided to date and do not expect to provide in the future. We expect demand for enhanced open credit terms, for example, longer payment terms, customer financing and leasing arrangements to continue and believe that such arrangements are a competitive factor in obtaining business. Our decision not to provide these types of financing arrangements may adversely affect our ability to sell product, and therefore, our revenue, operations and business.

Because of the current slowdown in the global economy, our exposure to credit risks relating to sales on an open-credit basis has increased. Although we monitor and attempt to mitigate the associated risk, there can be no assurance that our efforts will be effective in reducing credit risk. Additionally, there have been significant insolvencies and bankruptcies among our customers, which have and may continue to cause us to incur economic and financial losses. For example, we recorded a loss of \$0.9 million related to the settlement of all outstanding accounts receivables due from Net Servicos, a customer in the third quarter of 2002. There can be no assurance that additional losses would not be incurred and that such losses would not be material. Although these losses have generally not been material to date, future losses, if incurred, could harm our business and have a material adverse effect on our operating results and financial condition.

We have and we may seek to expand our business through acquisitions; acquisitions could disrupt our business operations and harm our operating results.

In order to expand our business, we may make strategic acquisitions of other companies. We plan to continue to evaluate opportunities for strategic acquisitions from time to time, and may make an acquisition at some future point. However, the current volatility in the stock market and the current price of our common stock may adversely affect our ability to make such acquisitions.

Any acquisition that we make involves substantial risks, including the following:

difficulties in integrating the operations, technologies, products and personnel of an acquired company;

diversion of management's attention from normal daily operations of the business;

potential difficulties in completing projects associated with in-process research and development;

difficulties in entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;

initial dependence on unfamiliar supply chains or relatively small supply partners;

insufficient revenues to offset increased expenses associated with acquisitions; and

the potential loss of key employees of the acquired companies.

Acquisitions may also cause us to:

issue common stock that would dilute our current stockholders' percentage ownership;

assume liabilities;

record goodwill and non-amortizable intangible assets that will be subject to impairment testing and potential periodic impairment charges;

incur amortization expenses related to certain intangible assets;

incur large and immediate write-offs; or

become subject to litigation.

Mergers and acquisitions of high-technology companies are inherently risky, and no assurance can be given that our future acquisitions will be successful and will not materially adversely affect our business, operating results or financial condition. Failure to manage and successfully integrate acquisitions we make could harm our business and operating results in a material way. Even when an acquired company has already developed and marketed products, there can be no assurance that product enhancements will be made in a timely fashion or that all pre-acquisition due diligence will have identified all possible issues that might arise with respect to such products.

We made ten acquisitions during the period between 1999 and 2000. Due to various economic conditions, none of the products from our acquired businesses have achieved the level of market acceptance that was forecasted at the time of their acquisitions. Additionally, certain product groups have not achieved the level of technological development needed to be marketable or to expand the market. We recorded impairment losses of approximately \$4.0 million and \$572.8 million of intangible assets related to these acquisitions in December 31, 2002 and 2001. As of September 30, 2003, no intangible assets from these acquisitions remain.

Various export licensing requirements could materially and adversely affect our business or require us to significantly modify our current business practices.

Various government export regulations may apply to the encryption or other features of our products. We may have to make certain filings with the government in order to obtain permission to export certain of our products. In the past, we may have inadvertently failed to file certain export applications and notices, and we may have to make certain filings and request permission to continue exportation of any affected products without interruption while these applications are pending. If we do have to make such filings, we cannot assure you that we will obtain permission to continue exporting the affected products or that we will obtain any required export approvals now or in the future. If we do not receive the required export approvals, we may be unable to ship those products to certain customers located outside of the United States. In addition, we may be subject to fines or other penalties due to the failure to file certain export applications and notices.

New laws and regulations affecting corporate governance may impede our ability to retain and attract board members and executive officers, and increase the costs associated with being a public company.

On July 30, 2002, President George W. Bush signed into law the Sarbanes-Oxley Act of 2002. The new act is designed to enhance corporate responsibility through new corporate governance and disclosure obligations, increase auditor independence, and tougher penalties for securities fraud. In addition, the Securities and Exchange Commission and the Nasdaq National Market have adopted rules in furtherance of the act and are considering adopting others. This act and the related new rules and regulations will likely have the effect of increasing the complexity and cost of our corporate governance and the time our executive officers spend on such issues, and may increase the risk of personal liability for our board members, chief executive officer, chief financial officer and other executives involved in our corporate governance process. As a result, it may become more difficult for us to attract and retain board members and executive officers. In addition, we have experienced, and will continue to experience, increased costs associated with being a public company, including additional professional and independent auditor fees.

Risks related to this offering

Our stock price has been and is likely to continue to be highly volatile.

The trading price of our common stock has been and is likely to continue to be highly volatile. Our stock price could be subject to extreme fluctuations in response to a variety of factors, including the following:

- actual or anticipated variations in quarterly operating results;
- announcements of technological innovations;
- new products or services offered by us or our competitors;
- changes in financial estimates by securities analysts;
- conditions or trends in the broadband services industry;
- changes in the economic performance and/or market valuations of Internet, online service or broadband service industries;
- our announcement of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- adoption of industry standards and the inclusion or compatibility of our technology with such standards;
- adverse or unfavorable publicity regarding us or our products;
- additions or departures of key personnel;
- sales of common stock; and
- other events or factors that may be beyond our control.

In addition, the stock markets in general, and the Nasdaq National Market and the stock price of broadband services and technology companies in particular, have experienced extreme price and volume volatility. This volatility and decline has affected many companies irrespective of or disproportionately to the operating performance of these companies. Additionally, industry

factors may materially adversely affect the market price of our common stock, regardless of our actual operating performance.

We have adopted a stockholder rights plan, which, together with provisions in our charter documents and Delaware law, may delay or prevent an acquisition of us, which could decrease the value of our stock.

We adopted a stockholder rights plan pursuant to which we distributed one right for each outstanding share of common stock held by stockholders of record as of February 20, 2001. Because the rights may substantially dilute the stock ownership of a person or group attempting a take-over of us, even if such a change in control is beneficial to our stockholders, without the approval of our board of directors, the plan could make it more difficult for a third party to acquire us, or a significant percentage of our outstanding capital stock, without first negotiating with our board of directors. Additionally, provisions of our Certificate of Incorporation and our Bylaws could make it more difficult for a third party to acquire control of us in a transaction not approved by our Board of Directors, and we have also opted out of the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which could also have the effect of delaying or preventing our acquisition by a third party.

Future sales of shares by existing stockholders could affect our stock price.

The shares held by our stockholders, including our executive officers and directors, may be sold in the public market at any time and from time to time subject in certain cases to volume limitations under Rule 144 of the Securities Act of 1933 and various vesting agreements. If any of these stockholders sell substantial amounts of our common stock in the public market, the market price of our common stock could decline. In addition, shares subject to outstanding options and shares reserved for future issuance under our stock option and purchase plans will continue to become eligible for sale in the public market to the extent permitted by the provisions of the various vesting agreements and the securities rules and regulations applicable to these shares.

Management might apply the net proceeds from this offering to uses that do not improve our operating results or increase the value of your investment.

Our management will have considerable discretion in the application of the net proceeds from this offering, and you will not have the opportunity, as part of your investment decision, to assess how the proceeds will be used. The net proceeds may be used for corporate purposes that do not improve our operating results or market value and you will not have the opportunity to evaluate the economic, financial, or other information on which we base our decisions on how to use the proceeds. Pending application of the proceeds, they might be placed in investments that do not produce income or that lose value.

Use of proceeds

We estimate that we will receive net proceeds of approximately \$70,517,000 from this offering, or approximately \$81,169,000 if the underwriters' over-allotment option is exercised in full, after deducting underwriting discounts and other expenses of this offering payable by us. We expect to use the net proceeds from this offering for general corporate purposes. General corporate purposes may include capital expenditures, research and development, strategic investments, repayment of debt, acquisitions, joint ventures or joint development projects. The amounts and timing of our actual expenditures will depend upon numerous factors, including the status of our product development and commercialization efforts, the amount of cash generated by our operations, competition and sales and marketing activities. Until the net proceeds have been used, they may be invested in short-term, investment-grade, interest bearing securities.

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Capitalization

The following table sets forth our capitalization at September 30, 2003 on an actual basis and as adjusted to give effect to the issuance of 10,800,000 shares of our common stock offered hereby and the application of the estimated net proceeds therefrom. See Use of Proceeds.

| (in thousands) | As of September 30, 2003 | |
|---|--------------------------|-------------------|
| | Actual | As Adjusted |
| Cash, cash equivalents and short-term investments | \$ 149,392 | \$ 219,909 |
| Total liabilities | 121,796 | 121,796 |
| Stockholders equity: | | |
| Capital stock: | | |
| Preferred stock, \$0.001 par value, 5,000,000 shares authorized, no shares issued and outstanding | - | - |
| Common stock: \$0.001 par value, 200,000,000 shares authorized, 74,769,739 shares issued, 74,613,730 shares outstanding, actual 85,569,739 shares issued, 85,413,730 shares outstanding, as adjusted | \$ 75 | \$ 86 |
| Additional paid-in capital | 1,080,628 | 1,151,134 |
| Treasury stock, at cost; 156,009 shares outstanding | (773) | (773) |
| Accumulated other comprehensive loss | (2,639) | (2,639) |
| Deferred compensation | (83) | (83) |
| Accumulated deficit | (981,545) | (981,545) |
| Total stockholders equity | 95,663 | 166,180 |
| Total capitalization | \$ 217,459 | \$ 287,976 |

The number of shares of our common stock that will be outstanding after this offering is based on 74,613,730 shares outstanding as of September 30, 2003. The number of shares of our common stock that will be outstanding after the offering excludes:

26,220,518 shares of our common stock reserved for issuance under our stock option plans, of which 17,634,021 shares were outstanding as of September 30, 2003;

1,797,790 shares of our common stock reserved for issuance under our employee stock purchase plan; and

425,593 shares of our common stock issuable pursuant to outstanding warrants.

Dilution

Our net tangible book value as of September 30, 2003 was approximately \$95.7 million or \$1.28 per share of common stock. Net tangible book value per share is determined by dividing our net tangible book value, which consists of tangible assets less total liabilities, by the number of shares of common stock outstanding at that date. Without taking into account any other changes in the net tangible book value after September 30, 2003, other than to give effect to our receipt of the estimated net proceeds from the sale of the 10,800,000 shares of common stock from this offering at an assumed offering price of \$6.94 per share, less estimated offering expenses, our net tangible book value as of September 30, 2003, after giving effect to the items above, would have been approximately \$166.2 million or \$1.95 per share. This represents an immediate increase in the net tangible book value per share of \$0.67 per share to existing stockholders and an immediate dilution of \$4.99 per share to new investors. The following table illustrates this per share dilution:

| | | |
|--|-------------------|-------------------|
| Offering price | | \$6.94 |
| Net tangible book value per share before the offering | \$ 1.28 | |
| Increase in net tangible book value after the offering | 0.67 | |
| | <u> </u> | |
| Net tangible book value per share after the offering | | 1.95 |
| | | <u> </u> |
| Dilution per share to new investors | | \$4.99 |
| | | <u> </u> |

This table is based on the number of outstanding shares as of September 30, 2003 and excludes an aggregate of 28,443,901 shares, of which (i) 26,220,518 shares are reserved for issuance under our stock option plans; (ii) 1,797,790 shares are reserved for issuance under our employee stock purchase plan; and (iii) 425,593 shares are issuable pursuant to outstanding warrants. Of the shares in (i) above, options to purchase an aggregate of 17,634,021 shares were outstanding as of September 30, 2003.

Underwriting

J.P. Morgan Securities Inc., CIBC World Markets Corp., Needham & Company, Inc. and Merriman Curhan Ford & Co. are the representatives of the underwriters. Subject to the terms and conditions set forth in the underwriting agreement, the underwriters named below have severally agreed to purchase, and we have agreed to sell to each underwriter, the following respective number of shares of common stock set forth opposite the name of each underwriter:

| Name | Number of shares |
|-----------------------------|------------------|
| J.P. Morgan Securities Inc. | |
| CIBC World Markets Corp. | |
| Needham & Company, Inc. | |
| Merriman Curhan Ford & Co. | |
| Total | 10,800,000 |

The underwriting agreement between us and the underwriters provides that the obligations of the underwriters to purchase the shares included in this offering are subject to conditions customary for offerings of this type. The underwriters are obligated to purchase all the shares, other than those covered by the over-allotment option described below, if they purchase any of the shares.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 1,620,000 additional shares of common stock at the public offering price less the underwriting discounts and commissions. The underwriters may exercise the option solely for the purpose of covering over-allotments, if any, in connection with this offering.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

Underwriting discounts and commissions

| | Without over- allotment exercise | With over- allotment exercise |
|-----------|-------------------------------------|----------------------------------|
| Per share | \$ | \$ |
| Total | \$ | \$ |

The underwriters initially propose to offer a portion of the shares directly to the public at the public offering price set forth on the cover page of this prospectus supplement and a portion of the shares to certain dealers at the public offering price less a concession not to exceed \$ per share. Any such securities dealers may resell any shares purchased from the underwriters to certain other brokers or dealers at a discount of up to \$ per share from the public offering price. If all of the shares are not sold at the public offering price, the representatives may change the public offering price and the other selling terms.

We and our directors and executive officers entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which we and such holders of stock have agreed not to offer, pledge, announce the intention to sell, sell, contract

to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock, options or warrants to acquire shares of common stock, or securities convertible into or exchangeable or exercisable for shares of common stock currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) by us, or enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of common stock, or publicly announce an intention to do any of the foregoing, without the prior written consent of J.P. Morgan Securities Inc. for a period of 90 days after the date of this prospectus supplement. In addition, our directors and executive officers have agreed that, without the prior written consent of J.P. Morgan Securities Inc., they will not, during this period, make any demand for or exercise any right with respect to the registration of any shares of our common stock or any security convertible into or exercisable or exchangeable for common stock. Such consent may be given at any time without public notice. The foregoing restrictions shall not apply to (i) the sale of common stock pursuant to this prospectus supplement, (ii) the issuance of common stock upon the exercise of options granted under our existing employee stock option plans, (iii) the issuance of series A junior participating preferred stock pursuant to our rights plan, (iv) with respect to the issuance of shares of our common stock in connection with any acquisition transaction, so long as the terms of any such acquisition contractually prohibit the resale or other disposition of such shares of common stock through and including the date 90 days after the date of this prospectus supplement, and (v) bona fide gifts or dispositions to any trust for the direct or indirect benefit of us or these other individuals and/or immediate family members of these other individuals, so long as such donees or transferees agree to be bound by the foregoing restrictions.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

The underwriters may engage in stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Rule 104 under the Exchange Act in connection with this offering. Stabilizing transactions permit bids to purchase the common shares so long as the stabilizing bids do not exceed a specified maximum. Syndicate covering transactions involve purchases of the common shares in the open market following completion of this offering to cover all or a portion of a syndicate short position created by the underwriters selling more common shares in connection with this offering than they are committed to purchase from us. In addition, the underwriters may impose penalty bids under contractual arrangements between the underwriters and dealers participating in this offering whereby they may reclaim from a dealer participating in this offering the selling concession with respect to common shares that are distributed in this offering but subsequently purchased for the account of the underwriters in the open market. Such stabilizing transactions, syndicate covering transactions and penalty bids may result in the maintenance of the price of the common share at a level above that which might otherwise prevail in the open market. None of the transactions described in this paragraph is required and, if any are undertaken, they may be discontinued at any time.

One or more of the underwriters may facilitate the marketing of this offering online directly or through one of its affiliates. In those cases, prospective investors may view offering terms and

a prospectus online and, depending upon the particular underwriter, place orders online or through their financial advisor.

In connection with this offering, certain underwriters and selling group members, if any, who are qualified market makers on the Nasdaq National Market may engage in passive market making transactions in our common stock on the Nasdaq National Market in accordance with Rule 103 of Regulation M under the Exchange Act. In general a passive market maker must display its bid at a price not in excess of the highest independent bid of such security; if all independent bids are lowered below the passive market maker's bid, however, such bid must then be lowered when certain purchase limits are exceeded.

We estimate that our total expenses attributable to this offering will be approximately \$500,000 excluding underwriting discounts and commissions.

In the ordinary course of the underwriters' respective businesses, the underwriters and their affiliates may, from time to time, engage in commercial and investment banking transactions with us.

Legal matters

Certain legal matters with respect to the securities will be passed upon for us by Morrison & Foerster LLP, San Francisco, California. Certain legal matters with respect to the securities will be passed upon for the underwriters by Davis Polk & Wardwell, Menlo Park, California.

Experts

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements and schedules included in our Annual report on Form 10-K for the year ended December 31, 2002, as set forth in their report, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our financial statements and schedules are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

Where you can find more information

We are subject to the informational reporting requirements of the Securities Exchange Act of 1934, which requires us to file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document that we file at the Public Reference Room of the Securities and Exchange Commission at 450 Fifth Street, N.W., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the Securities and Exchange Commission at 1-800-SEC-0330. You may also inspect our filings at the regional offices of the Securities and Exchange Commission or over the Internet at the Securities and Exchange Commission's Web site at <http://www.sec.gov>.

This prospectus supplement is part of a registration statement we filed with the Securities and Exchange Commission. This prospectus supplement omits some information contained in the registration statement in accordance with the rules and regulations of the Securities and Exchange Commission. You should review the information and exhibits in the registration statement for additional information about us and our consolidated subsidiaries and the

securities we are offering. Statements in this prospectus supplement concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the Securities and Exchange Commission are summaries and do not contain all of the information that may be important to you. You should review the complete document to evaluate these statements.

Our common stock is listed on the Nasdaq National Market under the symbol TERN. Our reports, proxy statements and other information may also be read and copied at the offices of the Nasdaq Stock Market, located at 20 Broad Street, New York, NY 10005.

The Securities and Exchange Commission allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement. We incorporate by reference the documents listed below and any future filings made with the Securities and Exchange Commission under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until we sell all of the securities that we have registered under the registration statement which includes this prospectus supplement:

Annual report on Form 10-K for the year ended December 31, 2002, including information specifically incorporated by reference into the Form 10-K from our proxy statement for the 2003 annual meeting of stockholders filed with the Securities and Exchange Commission on April 29, 2003, which includes audited financials for our latest fiscal year.

Quarterly reports on Form 10-Q for the quarters ended March 31, 2003 and June 30, 2003.

Current Reports on Form 8-K filed on February 27, 2003, March 14, 2003, April 1, 2003, April 16, 2003, April 30, 2003, May 9, 2003, May 15, 2003, May 30, 2003, June 24, 2003, July 3, 2003, July 16, 2003, July 28, 2003, July 31, 2003, August 21, 2003, September 18, 2003, October 7, 2003, October 9, 2003, October 24, 2003 and November 6, 2003.

The description of our common stock is set forth in our registration statement on Form 8-A filed with the Securities and Exchange Commission on July 20, 1998, and any subsequent amendments or reports filed for the purpose of updating this description. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

Any filing that has been, or is in the future, furnished and not filed with the Securities and Exchange Commission, will not be deemed to be filed by virtue of its incorporation by reference into the registration statement which includes this prospectus supplement.

We will provide without charge to each person to whom a copy of this prospectus supplement is delivered, upon written or oral request, a copy of the information that has been or may be incorporated by reference in this prospectus supplement, other than exhibits to the relevant documents unless they are specifically incorporated by reference into the requested documents. Direct any request for copies to Edward Lopez, Esq., Senior Vice President, General Counsel and

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Human Resources, at our corporate headquarters located at 4988 Great America Parkway, Santa Clara, California 95054 and our telephone number at that address is (408) 235-5500.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with any other information. We are only offering these securities in states where the offer is permitted. You should not assume that the information in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the dates on the front of such documents.

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Prospectus

\$125,000,000

Offered by

Terayon Communication Systems, Inc.

Common stock, preferred stock,

debt securities and warrants

We may offer, from time to time, in amounts, at prices and on terms that we will determine at the time of offering, common stock, par value \$0.001 per share, preferred stock, par value \$0.001 per share, debt securities and warrants with an aggregate public offering price of up to \$125,000,000. We will provide the specific terms of these securities in supplements to this prospectus. For information on the general terms of these securities, see *Description of Equity Securities We May Offer*, *Description of Debt Securities We May Offer* or *Description of Warrants We May Offer*. You should carefully read this prospectus, the applicable prospectus supplements and other information to which we refer in this prospectus and any prospectus supplement before you invest.

Our common stock trades on the Nasdaq National Market under the symbol TERN. The applicable prospectus supplement will contain information, where applicable, as to any other listing on any securities exchange of the other securities covered by that prospectus supplement.

Our principal executive offices are located at 4988 Great America Parkway, Santa Clara, California 95054, and our telephone number at that address is (408) 235-5500.

We may offer these securities directly to investors, through underwriters, broker-dealers or agents. See *Plan of Distribution* beginning on page 18. Each prospectus supplement will provide the terms of the plan of distribution relating to each such securities.

You should read this prospectus and any prospectus supplement carefully before you invest.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

This prospectus is dated November 4, 2003.

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Summary

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission using a shelf registration, or continuous offering process. Under this shelf registration process, we may, from time to time, over approximately the next two years, issue and sell any combination of common stock, preferred stock, debt securities and warrants, either separately or in units, in one or more offerings up to an aggregate dollar amount of \$125,000,000.

This prospectus provides you with a general description of the securities that we may offer. Each time we sell any securities described in this prospectus, we will provide you with a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. The registration statement we filed with the Securities and Exchange Commission includes exhibits that provide greater detail about matters discussed in this prospectus. You should carefully read this prospectus, the related exhibits filed with the Securities and Exchange Commission and the applicable prospectus supplement, together with the additional information described under the caption **Where You Can Find More Information** on page 19 of this prospectus.

This prospectus, and any prospectus supplement issued in relation to it, contain trademarks of Terayon Communication Systems, Inc. and its affiliates, and may contain trademarks, tradenames and service marks of other parties. Unless we indicate otherwise, the terms **Terayon**, **we**, **our** and **us** as used in this prospectus refers to Terayon Communication Systems, Inc. and its subsidiaries as a combined entity.

Terayon Communication Systems, Inc.

We were founded and incorporated in California in 1993, reincorporated in Delaware in 1998 and have been a publicly traded company on the Nasdaq National Market under the symbol **TERN** since 1998. Our executive offices are located at 4988 Great America Parkway, Santa Clara, California 95054 and our telephone number at that address is (408) 235-5500.

Risk factors

The prospectus supplement applicable to each type or series of securities we offer will contain a discussion of risks applicable to an investment in Terayon and to the particular types of securities that we are offering under that prospectus supplement. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the caption **Risk Factors** in the applicable prospectus supplement, together with all of the other information contained in the prospectus supplement or appearing or incorporated by reference in this prospectus.

Forward-looking statements

The statements contained in this prospectus that are not historical fact are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements, whether expressed or implied, are subject to risks and uncertain-

ties which can cause actual results to differ materially from those currently anticipated, due to a number of factors, which include, but are not limited to:

our ability to gain new business;

our ability to develop and bring to market new, technologically advanced products and technology;

the acceptance of our new products and technology in the market;

the impact of competition and technological changes on the development of our business and pricing of our products;

the expansion of operations and capital expenditures by our customers;

the deployment of our products in specific markets;

our ability to lower and align our operating expenses with market conditions;

our future capital needs and costs, if any, incurred with respect to acquisitions or restructuring activities;

risks associated with the effects of general economic conditions and specifically in relation to the cable industry;

industry trends and future growth of the markets for our products and technology; and

loss associated with future and pending litigation matters, as they may arise.

Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. When used in this prospectus, the words may, will, should, could, expect, plan, anticipate, believe, estimate, predict, continue, and similar expressions are intended to identify forward-looking statements.

Because the risks referred to above, as well as other risks, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events unless in the course of offering the securities under this prospectus we provide you with a prospectus supplement.

Ratio of earnings to fixed charges

The following table shows our ratio of earnings to fixed charges for the last five fiscal years and the nine months ended September 30, 2003.

| (in thousands) | Twelve months ended December 31, | | | | | Nine months ended September 30, 2003 (Unaudited) |
|--|----------------------------------|-------------|--------------|--------------|-------------|--|
| | 1998 | 1999 | 2000 | 2001 | 2002 | |
| Loss before income taxes | \$ (23,228) | \$ (64,080) | \$ (180,767) | \$ (577,761) | \$ (43,975) | \$ (44,338) |
| Add: Fixed charges | 450 | 170 | 12,566 | 27,109 | 8,836 | 2,010 |
| Adjusted loss | \$ (22,778) | \$ (63,910) | \$ (168,201) | \$ (550,652) | \$ (35,139) | \$ (42,328) |
| Ratio of earnings to fixed charges (1) | N/A | N/A | N/A | N/A | N/A | N/A |

(1) Our earnings were insufficient to cover fixed charges for the last five fiscal years and in the six-month period ended June 30, 2003.

For the purpose of calculating the ratio of earnings to fixed charges, earnings are defined as consolidated loss from continuing operations before income taxes plus fixed charges. Fixed charges are the sum of interest of all indebtedness, estimated interest within rental expense and amortization of debt issuance costs. There was no preferred stock outstanding for any of the periods shown above. Accordingly, the ratio of earnings to fixed charges and preferred stock dividends are identical to the ratio of earnings to fixed charges.

Use of proceeds

The net proceeds from the securities sold by us will be added to our general corporate funds and may be used for general corporate purposes. General corporate purposes may include capital expenditures, research and development, strategic investments, repayment of debt, acquisitions, joint ventures, joint development projects and any other purposes that we may specify in any prospectus supplement. The amounts and timing of our actual expenditures will depend upon numerous factors, including the status of our product development and commercialization efforts, the amount of cash generated by our operations, competition and sales and marketing activities. Until the net proceeds have been used, they may be invested in short-term, investment-grade, interest bearing securities in accordance with our investment policy. If we elect at the time of the issuance of the securities to make different or more specific use of proceeds other than as described in this prospectus, the change in use of proceeds will be described in the applicable prospectus supplement.

Description of equity securities we may offer

The following description of our common stock and preferred stock, together with the additional information included in any applicable prospectus supplement, summarizes the material terms and provisions of our capital stock but is not complete. For the complete terms of our common stock and preferred stock, please refer to our amended and restated certificate

of incorporation and bylaws that are incorporated by reference into the registration statement which includes this prospectus. With respect to the series A junior participation preferred stock, please refer to the certificate of designation filed relating to that series of preferred stock which is incorporated by reference in the registration statement which includes this prospectus. With respect to the other series of preferred stock, please refer to the certificate of designation which will be filed with the Securities and Exchange Commission for each series of preferred stock we may designate, if any.

We will describe in a prospectus supplement the specific terms of any common stock or preferred stock we may offer pursuant to this prospectus. If so indicated in a prospectus supplement, the terms of such common stock or preferred stock may differ from the terms described below.

Common stock

Under our amended and restated certificate of incorporation, we are authorized to issue up to 200,000,000 shares of common stock, par value \$0.001. As of September 30, 2003, 74,613,730 shares were issued and outstanding. Holders of shares of our common stock are entitled to one vote per share on all matters to be voted on by our stockholders. Our board of directors, consisting of six members, is classified into three classes with one class being elected each year. The directors of each class serve a three year term and hold office until his successor is elected at the annual meeting in the year in which his term expires. The establishment of a classified board of directors may have the effect of delaying, deferring or preventing a change in control of Terayon, even if such a change of control may be beneficial to our stockholders.

Subject to preferences that may be applicable to any outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds for that purpose. Upon our liquidation or dissolution, holders of our common stock are entitled to share ratably in the distribution of assets, subject to the prior distribution rights of the holders of any outstanding preferred stock. Holders of our common stock have no preemptive, subscription or conversion rights. There are no redemption or sinking fund provisions with respect to our common stock.

Our outstanding shares of common stock are listed on the Nasdaq National Market under the symbol TERN. EquiServe L.P. serves as transfer agent and registrar for our common stock.

Preferred stock

Under our amended and restated certificate of incorporation, we may issue up to 5,000,000 shares of preferred stock. No shares of preferred stock or options to purchase preferred stock are currently outstanding. Our board of directors has the authority, without further action by the stockholders, to issue up to the maximum authorized number of shares of preferred stock in one or more series. Our board of directors also has the authority to designate the rights, preferences, privileges and restrictions of each such series, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series. The rights, preferences, privileges and restrictions of each series will be fixed by the certificate of designation relating to that series. Any or all of the rights of our preferred stock may be greater than the rights of our common stock.

Our board of directors has designated 2,000,000 shares of preferred stock as series A junior participating preferred stock, the terms and conditions of which are described in greater detail below.

The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of Terayon without further action by the stockholders. The issuance of our preferred stock with voting and conversion rights may also adversely affect the voting power of the holders of our common stock. In certain circumstances, an issuance of preferred stock could have the effect of decreasing the market price of our common stock. Management believes that the availability of preferred stock provides us with increased flexibility in structuring possible future financing and acquisitions and in meeting other needs that might arise.

Whenever preferred stock is to be sold pursuant to this prospectus, we will file a prospectus supplement relating to that sale which will specify:

the number of shares in the series of preferred stock;

the designation for the series of preferred stock by number, letter or title that shall distinguish the series from any other series of preferred stock;

the dividend rate, if any, and whether dividends on that series of preferred stock will be cumulative, non-cumulative or partially cumulative;

the voting rights of that series of preferred stock, if any;

any conversion provisions applicable to that series of preferred stock;

any redemption or sinking fund provisions applicable to that series of preferred stock;

the liquidation preference per share of that series of preferred stock, if any;

the listing of the preferred stock on any securities exchange;

a discussion of federal income tax considerations applicable to trust series of preferred stock;

the relative ranking and preferences of that series of preferred stock as to dividend rights, and rights upon liquidation, dissolution or winding up of our affairs;

any limitations on issuance of any series of preferred stock ranking senior to or on parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs;

the applicable registrar and transfer agent for that series of preferred stock; and

the terms of any other preferences or rights, if any, applicable to that series of preferred stock.

Anti-takeover provisions

Provisions of Delaware law and our amended and restated certificate of incorporation and bylaws could make our acquisition by means of a tender offer, a proxy contest or otherwise, and the removal of incumbent officers and directors more difficult. These provisions are expected to discourage types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the

proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweighs the disadvantages of discouraging proposals, including proposals that are priced above the then current market value of our common stock, because, among other things, negotiation of these proposals could result in an improvement of their terms.

Delaware law

We are subject to Section 203 of the Delaware General Corporation Law. Under this provision, we may not engage in any business combination with any interested stockholder for a period of three years following the date the stockholder becomes an interested stockholder, unless:

prior to that date our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock outstanding at the time the transaction began; or

on or following that date the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines business combination to include:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

subject to some exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Certificate of incorporation and bylaws

Our amended and restated certificate of incorporation and bylaws include a number of provisions that may have the effect of deterring hostile takeovers or delaying or preventing changes in control or management of our company. In particular, our amended and restated certificate of incorporation and bylaws, as applicable, among other things:

provide that special meetings of the stockholders may be called only by (i) Chairman of our board of directors, (ii) the President, (iii) our board of directors, or (iv) the holders of shares entitled to cast not less than ten percent of the votes at the meeting;

provide for a classified board of directors;

provide that advance written notice of a stockholder proposal or director nomination that the stockholder desires to present at a meeting of stockholders is required and generally must be received by the secretary not less than 90 days nor more than 120 days prior to the meeting;

provide that vacancies on our board, other than as a result of the removal of a director, may be filled by a majority of directors in office, although less than a quorum; and

provide that we may issue up to 5,000,000 shares of preferred stock with rights and preferences senior to those of our common stock and pursuant to which we have designated up to 2,000,000 shares of our preferred stock as series A junior participating preferred stock that may be issued in accordance with our rights agreement (as described more fully below).

These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board and in the policies formulated by them and to discourage certain types of transactions that may involve an actual or threatened change in control of our company. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, these provisions could have the effect of discouraging others from making tender offers for our shares that could result from actual or rumored takeover attempts. These provisions also may have the effect of preventing changes in our company or management.

Description of series A junior participating preferred stock

Shares of series A junior participating preferred stock, or series A preferred stock, par value \$0.001 per share, are issuable upon exercise of any rights issued pursuant to our rights agreement, discussed in greater detail below. Series A preferred stock ranks junior to any other series of our preferred stock, if any. Series A preferred stock issued upon exercise of the rights under our rights agreement would not be redeemable. Each series A preferred stock will be entitled to a minimum preferential quarterly dividend payment of the greater of (i) \$1.00 or (ii) 100 times the aggregate per share amount of all cash dividends and 100 times the aggregate per share amount of all non-cash dividends. In the event of a liquidation of Terayon, the holders of series A preferred stock would be entitled to a minimum preferential liquidation payment of \$100 per share, but would be entitled to receive an aggregate payment equal to 100 times the aggregate amount to be distributed per share to holders of shares of our common stock, provided that each share of series A preferred stock would receive an amount greater than each share of our common stock. Each share of series A preferred stock would have 100 votes, and will vote together with our common stock on all matters coming before the stockholders unless otherwise specified by applicable law. In the event of any merger, consolidation or other transaction of Terayon in which our common stock are exchanged, each share of series A preferred stock would be entitled to receive 100 times the amount of consideration received with respect to per share of our common stock. These rights are protected by customary anti-dilution provisions. Because of the nature of the series A preferred stock's dividend and liquidation rights, the value of one one-hundredth of a share of series A preferred stock would approximate the value of one share of our common stock. For the complete terms of our series A preferred stock, please refer to our certificate of designation relating to series A preferred stock that is incorporated by reference into the registration statement, which includes this prospectus.

Description of rights agreement

On February 6, 2001, our board of directors approved the adoption of a rights plan, in accordance with a rights agreement, dated as of the same date, that we entered into with Fleet National Bank as rights agent. The terms of the rights agreement provide for a dividend distribution of one preferred share purchase right, or a Right, for each outstanding share of our common stock. The dividend was payable on February 20, 2001 to our stockholders of record on that date. Each Right entitled the registered holder to purchase from us one one-hundredth of a share of series A preferred stock at a price of \$50.00 per one one-hundredth of a series A preferred stock, subject to adjustment. The purchase price payable, and the number of series A preferred stock or other securities or properties, upon exercise of the Rights are subject to adjustment from time to time to prevent dilution.

The following is a summary of the material terms of the rights agreement but is not complete. For a complete description of the rights plan, please refer to the rights agreement which is incorporated by reference into the registration statement which includes this prospectus.

Exerciseability and expiration

The Rights are not exercisable until the distribution date which is the earlier to occur of (i) the date of a public announcement that a person, entity or group of affiliated or associated persons (which we refer to collectively as an Acquiring Person) have acquired beneficial ownership of 15% or more of our outstanding common stock, or (ii) 10 business days (or such later date as may be determined by action of our board of directors prior to such time as any person or entity becomes an Acquiring Person) following the commencement of, or announcement of an intention to commence, a tender offer or exchange offer, the consummation of which would result in any person or entity becoming an Acquiring Person. The Rights will expire on February 6, 2011, unless the Rights are earlier redeemed or exchanged by us as further described below.

Until a Right is exercised, a Rights holder has no rights as a stockholder, including, without limitation, the right to vote or to receive dividends.

Trigger event

In the event that any person or entity becomes an Acquiring Person, each holder of a Right, other than Rights beneficially owned by the Acquiring Person (which upon such an event will be voided), will for a 60-day period have the right to receive upon exercise that number of shares of our common stock having a market value of two times the exercise price of the Right (or, if such number of shares is not and cannot be authorized, we may issue Series A Preferred Stock, cash, debt, stock or a combination thereof in exchange for the Rights). This right will generally terminate 60 days after the date on which the Rights become nonredeemable (as described below).

In the event that we are acquired in a merger or other business combination transaction or 50% or more of our consolidated assets or earning power are sold to an Acquiring Person, each holder of a Right will thereafter have the right to receive, upon the exercise at the then current exercise price of the Right, that number of shares of the common stock of the acquiring company which at the time of such transaction will have a market value of two times the exercise price of the Right.

Exchange

At any time after a person or entity becomes an Acquiring Person and prior to the acquisition by such Acquiring Person of 50% or more of our outstanding common stock, our board of directors may exchange the Rights (other than Rights owned by the Acquiring Person which upon such an event will be voided) at an exchange ratio of one share of common stock per Right (or, at our election, we may issue cash, debt, stock or a combination of such consideration in exchange for the Rights), subject to adjustment.

Redemption

At any time prior to the earlier to occur of (i) the day of the first public announcement that a person or entity has become an Acquiring Person, or (ii) February 6, 2011, our board of directors may redeem the Rights in whole, but not in part, at a price of \$0.001 per Right. Following the expiration of the above periods, the Rights become nonredeemable. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only consideration the holders of Rights will receive is the redemption price of \$0.001 per Right.

Amendment of the rights plan

The terms of the Rights may be amended by our board of directors without the consent of the holders of the Rights, except that from and after such time as the Rights are distributed no such amendment may adversely affect the interest of the holders of the Rights, excluding the interests of an Acquiring Person.

Anti-takeover effects

The establishment of the rights plan and the potential issuance of Rights have certain anti-takeover effects. The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board of directors. The Rights should not interfere with any merger or other business combination approved by our board of directors since the Rights may be amended to permit such acquisition or redeemed by us at \$0.001 per Right prior to the earliest of (i) the time that a person or group has acquired beneficial ownership of 15% or more of our common stock, or (ii) February 6, 2011.

Description of outstanding registration rights agreement with holders of common stock

Pursuant to an Amended and Restated Information and Registration Rights Agreement, dated as of April 6, 1998, that we entered into with the holders (or their permitted transferees) of approximately 22,778,194 shares of our common stock, these holders are entitled to specified rights with respect to the registration of their shares of common stock for sale in the public market. If we propose to register our common stock under the Securities Act of 1933, subject to exceptions, the holders are entitled to notice of the registration and are entitled, at our expense, to include their shares of common stock in such a registration; provided that the managing underwriters, if any, in such an offering have the right to limit the number of shares of common stock held by the holders to be included in the registration or exclude such shares entirely. In addition, some of these holders may require us, at our expense, on no more than seven occasions, to file a registration statement under the Securities Act that is not a registration statement on Form S-3 with respect to their shares of common stock; provided the

aggregate offering price exceeds \$5.0 million and other specified conditions are met. Further, some of these holders may require us, at our expense, on no more than four occasions, to register all or portion of their shares on a registration statement on Form S-3; provided the aggregate offering price exceeds \$1.0 million and other specified conditions are met. These registration rights expire on the earlier to occur of (A) August 17, 2005, or (B) with respect to any holder, at such time that the holder owns less than one percent of our outstanding common stock and is free to sell all of such holder's shares to the public pursuant to Rule 144 under the Securities Act of 1933.

Description of debt securities we may offer

The following description of the debt securities we may offer, together with the additional information included in any prospectus supplement, describes the material terms and conditions of this type of security but is not complete. For a more detailed description of the terms of the debt securities, please refer to the form indenture between Terayon and a trustee to be selected, relating to the issuance of the notes. We have filed the form indenture with the Securities and Exchange Commission as an exhibit to the registration statement which includes this prospectus.

We will describe in a prospectus supplement the specific terms of any debt securities we may offer pursuant to this prospectus. If indicated in a prospectus supplement, the terms of such debt securities may differ from the terms described below. The notes will be issued under one or more indentures to be entered into between Terayon and the trustee named in the indenture. The indenture also gives us the ability to reopen a previous issue of a series of debt securities and issue additional debt securities of such series or establish additional terms for such series of debt securities. The indenture does not limit the aggregate principal amount of debt securities or other unsecured debt which we may issue. The debt securities will not be secured by any of our property or assets. Thus, by owning a debt security, you are one of our unsecured creditors. The indenture will be qualified under the Trust Indenture Act.

The following summaries of certain material provisions of the notes and indenture are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities, including the definitions therein of certain terms.

General

Each prospectus supplement will describe the following terms relating to each series of notes that we may issue:

the designation or title, the aggregate principal amount and the authorized denominations if other than \$1,000 and integral multiples of \$1,000;

whether the notes are senior debt securities or subordinated debt securities and the terms of subordination;

any limit on the amount that may be issued;

the percentage of their principal amount at which the debt securities will be issued and, if applicable, the method of determining the price;

the date or dates, if any, after which the debt securities may be converted or exchanged into or for shares of our common stock or another company's securities or

property or settled for the cash value of securities issued by us or a third party and the terms for any such conversion or exchange or settlement;

the exchanges, if any, on which the debt securities may be listed;

any special provisions for the payment of additional amounts with respect to the debt securities;

whether or not such series of notes will be issued in global form, the terms and who the depositary will be;

the maturity date(s);

the annual interest rate(s) (which may be fixed or variable) or the method for determining the rate(s) and the date(s) interest will begin to accrue, the date(s) interest will be payable and the regular record dates for interest payment dates or the method for determining such date(s);

the place(s) where payments shall be payable;

our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date(s), if any, on which, and the price(s) at which we are obligated, pursuant to any mandatory sinking fund provisions or otherwise, to redeem, or at the holder's option to purchase, such series of notes and other related terms and provisions;

any addition to, or modification or deletion of, any event of default or any of our covenants specified in the applicable indenture with respect to such series of notes;

terms and conditions, if any, pursuant to which such series of notes are secured;

whether the debt securities will be subject to defeasance or covenant defeasance; and

any other terms of the debt securities not inconsistent with the provisions of the applicable indenture.

The debt securities may be issued as original issue discount securities. An original issue discount security is a debt security, including any zero-coupon debt security, which: (i) is issued at a price lower than the amount payable upon its stated maturity; and (ii) provides that upon redemption or acceleration of the maturity, an amount less than the amount payable upon the stated maturity, shall become due and payable.

United States federal income tax considerations applicable to debt securities sold at an original issue discount security will be described in the applicable prospectus supplement. In addition, United States federal income tax or other considerations applicable to any debt securities which are denominated in a currency or currency unit other than United States dollars may be described in the applicable prospectus supplement.

Under the indenture, Terayon will have the ability, in addition to the ability to issue debt securities with terms different from those of debt securities previously issued, without the consent of the holders, to reopen a previous issue of a series of debt securities and issue additional debt securities of that series, unless such reopening was restricted when the series was created, in an aggregate principal amount determined by us. All such debt securities including those issued pursuant to such reopening shall vote together as a single class.

Payment, transfer and redemption

Unless we state otherwise in a prospectus supplement, we will issue debt securities only as registered securities, which means that the name of the holder will be entered in a register which will be kept by the trustee or another agent of ours. Unless we state otherwise in a prospectus supplement, we will make principal and interest payments at the office of the paying agent or agents we name in the prospectus supplement or by mailing a check to you at the address we have for you in the register.

Unless we state otherwise in a prospectus supplement, you will be able to transfer and exchange registered debt securities at the office of the transfer agent or agents we name in the prospectus supplement.

If the debt securities are redeemable and we redeem less than all of the debt securities of a particular series, we may block the transfer or exchange of debt securities during a specified period of time in order to freeze the list of holders to prepare the mailing. We also may refuse to register transfers or exchanges of debt securities selected for redemption. However, we will continue to permit transfers and exchanges of the unredeemed portion of any debt security being partially redeemed.

Global notes, delivery and form

Unless otherwise specified in a prospectus supplement, the debt securities will be issued in the form of one or more fully registered global notes that will be deposited with, or on behalf of, The Depository Trust Company, New York, New York or another depository named by us and identified in a prospectus supplement with respect to such securities (we refer to such an entity as the depository in this prospectus) and registered in the name of the depository's nominee. Global notes are exchangeable for definitive note certificates only under specified circumstances.

So long as a nominee of the depository is the registered owner of a global note, such a nominee for all purposes will be considered the sole owner or holder of the global note under the indenture. Except as provided below, you will not be entitled to have debt securities registered in your name, will not receive or be entitled to receive physical delivery of debt securities in definitive form, and will not be considered the owners or holders thereof under the indenture. We will make payment of principal of, and interest on, debt securities represented by a global note to the depository or its nominee, as the case may be, as the registered owner and holder of the global note representing those debt securities.

Modification of the indenture

In general, our rights and obligations and the rights of the holders under the indenture may be modified if the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series affected by the modification consent to it. However, the indenture provides that, unless each affected holder agrees, we cannot:

make any adverse change to any payment terms of a debt security such as:

extending the maturity date or dates,

extending the date on which we have to pay interest or make a sinking fund payment, other than deferrals of the payments of interest during any extension period as described in any applicable prospectus supplement,

reducing the interest rate,

reducing the amount of principal we have to repay,

changing the currency in which we have to make any payment of principal, premium or interest,

modifying any redemption or repurchase right to the detriment of the holder, or

impairing any right of a holder to bring suit for payment;

reduce the percentage of the aggregate principal amount of debt securities needed to make any amendment to the indenture or to waive any covenant or default; or

waive any past payment default.

However, if we and the trustee agree, we can amend the indenture without notifying any holders or seeking their consent if the amendment does not materially and adversely affect any holder.

Consolidation, merger and sale

We shall not consolidate with or merge into any other corporation or convey, transfer or lease our properties and assets substantially as an entirety to any person, unless (1) such other corporation or person expressly assumes by supplemental indenture executed and delivered to the trustee, the payment of the principal of and premium, if any, and interest on all the debt securities and the performance of every covenant of the indenture on our part to be performed or observed; (2) immediately after giving effect to such transactions, no event of default (as defined below), and no event which after notice or lapse of time or both, would become an event of default, shall have happened and be continuing; and (3) we have delivered to the trustee an officers' certificate and opinion of counsel, each stating that such transaction complies with the provisions of the indenture governing consolidation, merger, conveyance, transfer or lease and that all conditions precedent thereto have been complied with.

Events of default

The indenture defines an event of default with respect to any series of debt securities. Unless otherwise provided in the applicable prospectus supplement, events of default are any of the following:

default in any payment of principal or premium, if any, on any debt security of such series when due;

default for 30 days in payment of any interest, if any, on any debt security of such series (subject to the deferral of any due date in the case of an extension period);

default in the making or satisfaction of any sinking fund payment or analogous obligation for 30 days on the debt securities of such series;

default for 60 days after written notice, as provided in the indenture, to us in performance of any other covenant in respect of the debt securities of such series contained in the indenture;

certain events in bankruptcy, insolvency or reorganization; or

any other event of default provided with respect to debt securities of a series.

An event of default under one series of debt securities does not necessarily constitute an event of default under any other series of debt securities. The indenture provides that the trustee may withhold notice to the holders of any series of debt securities issued thereunder of any default if the trustee considers it in the interest of such holders to do so; provided the trustee may not withhold notice of default in the payment of principal, premium, if any, or interest, if any, on any of the debt securities of such series or in the making of any sinking fund installment or analogous obligation with respect to such series.

The indenture provides that if an event of default occurs and is continuing with respect to any series of debt securities, either the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of such series may declare the principal amount (or in the case of discounted debt securities, such portion of the principal amount as may be specified in the terms of that series) of all the debt securities of that series to be due and payable immediately. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of money has been obtained by the trustee, the holders of a majority in aggregate outstanding principal amount of the debt securities of that series may, under certain circumstances, annul and rescind such acceleration. The holders of a majority in principal amount of such debt securities then outstanding may also waive on behalf of all holders of that series, past defaults with respect to a particular series of debt securities except, unless previously cured, a default in payment of principal, premium, if any, or interest, if any, on any of the debt securities of such series, or the payment of any sinking fund installment or analogous obligation on the debt securities of such series.

Conversion and exchange rights

The debt securities of any series may be convertible into, or exchangeable for, other securities we issue or securities of another issuer or property or cash on the terms and subject to the conditions set forth in the applicable prospectus supplement.

Defeasance and discharge

The indenture provides that if we choose to have the defeasance and discharge provision applied to the debt securities, we can legally release ourselves from any payment or other obligations on the debt securities, except for the ministerial obligations described below, if we put in place the following arrangements for you to be repaid:

we must deposit in trust for the benefit of all direct holders of debt securities a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make any interest, premium, principal or other payments on the debt securities on their various due dates.

we must deliver to the trustee a legal opinion of our counsel confirming that we received from, or there has been published by, the U.S. Internal Revenue Service a ruling, or there has been a change in the U.S. federal income tax law, and, in either case, under then current U.S. law we may make the above deposit without causing you to be taxed on the debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves.

However, even if we make the deposit in trust and opinion delivery arrangements discussed above, a number of our obligations relating to the debt securities will remain. These include our obligations:

- to register the transfer and exchange of debt securities;
- to replace mutilated, destroyed, lost or stolen debt securities;
- to maintain payment agencies; and
- to hold money for payment in trust.

Covenant defeasance

The indenture also allows us to choose whether covenant defeasance will apply to any series of debt securities. If we do so choose, we will say so in the prospectus supplement.

The indenture provides that if we choose to have the covenant defeasance provision applied to any debt securities, we need not comply with the covenants in the indenture, including those under the section captioned Consolidation, Merger and Sale. In addition, covenant defeasance would also render ineffective any event of default provisions relating to any restrictive covenants. Any of our other obligations affected by covenant defeasance will be specified in the prospectus supplement.

In order to exercise the covenant defeasance option, we must put into place the same deposit in trust and opinion delivery arrangements as discussed above under the section captioned Defeasance and Discharge.

Subordination

Any subordinated debt securities issued under the indenture will be subordinate and junior in right of payment to all our senior debt whether existing at the date of the indenture or subsequently incurred. The terms and conditions of any subordination will be set forth in the applicable prospectus supplement.

Governing law

The indenture and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 applies.

Concerning the trustee

We have had and may continue to have commercial and investment banking relationships with the trustee in the ordinary course of business.

Description of outstanding debt securities

5% Convertible Subordinated Notes

Overview

In July 2000, we issued 5% Convertible Subordinated Notes, or the Notes, in an aggregate amount of \$500 million due in August 2007. The Notes are our general unsecured obligation

and are subordinated in right of payment to all existing and future senior indebtedness and to all of the liabilities of our subsidiaries. The Notes are convertible into shares of our common stock at a conversion price of \$84.01 per share at any time on or after October 24, 2000 through maturity, unless previously redeemed or repurchased by us. We may redeem some or all of the Notes at any time on or after October 24, 2000 and before August 7, 2003 at a redemption price of \$1,000 per \$1,000 principal amount of the Notes, plus accrued and unpaid interest, if any, if the closing price of our common stock exceeds 150% of the conversion price, or \$126.01, for at least 20 trading days within a period of 30 consecutive trading days ending on the trading day prior to the date of mailing of the redemption notice. We will also make an additional payment of \$193.55 per \$1,000 principal amount of the Notes, less the amount of any interest actually paid on the Notes before the date of redemption. We may redeem the Notes at any time on or after August 7, 2003 at specified prices plus accrued and unpaid interest. Interest on the Notes accrues at 5% per annum and is payable semi-annually.

As of September 30, 2003, we have repurchased \$434.9 million of the Notes and \$65.1 million of the Notes remain outstanding.

Right to require purchase of Notes upon a change in control

If a change in control (as defined in the indenture) occurs, each holder of the Notes may require that we repurchase the holder's Notes on the date fixed by us that is not less than 45 nor more than 60 days after we give notice of the change in control. We will repurchase the Notes for an amount of cash equal to 100% of the principal amount of the Notes on the date of purchase, plus accrued and unpaid interest, if any, to the date of repurchase.

Consolidation, merger and sale of assets

We may, without the consent of the holders of any of the Notes, consolidate with or merge into any other person or convey, transfer or lease our properties and assets substantially as an entirety to, any other person, if: (i) we are the resulting or surviving corporation or the successor, transferee or lessee, if other than us, is a corporation organized under the laws of any U.S. jurisdiction and expressly assumes our obligations under the indenture and the Notes by means of a supplemental indenture entered into with the trustee; and (ii) after giving effect to the transaction, no event of default and no event which, with notice or lapse of time, or both, would constitute an event of default, shall have occurred and be continuing.

Events of default

If an event of default (as defined in the indenture) occurs and is continuing, either the trustee or the holders of at least 25% in principal amount of the then outstanding Notes may declare the principal amount of and accrued interest on all Notes to be immediately due and payable. This declaration may be rescinded if the conditions described in the indenture are satisfied. In the events of bankruptcy, insolvency or reorganization of Terayon or any significant subsidiary of Terayon, the principal amount of and accrued interest on the then outstanding Notes will automatically become immediately due and payable.

Registration rights

We entered into a registration rights agreement with the initial purchasers of the Notes for the benefit of the holders of the Notes and the common stock issuable on conversion of the Notes. Pursuant to this agreement, we filed a shelf registration statement with the Securities and

Exchange Commission covering resales of the Notes and the common stock issuable on conversion of the Notes. This shelf registration statement is no longer effective.

Description of the warrants we may offer

We may issue warrants, including warrants to purchase common stock, preferred stock, debt securities or any combination of the foregoing. Warrants may be issued independently or together with any securities and may be attached to or separate from the securities. We may issue warrants in such amounts or in as many distinct series as we wish. The warrants will be issued under warrant agreements to be entered into between us and a warrant agent as detailed in the prospectus supplement relating to the warrants being offered. Pursuant to this prospectus, we also may issue warrants to underwriters or agents as additional compensation in connection with a distribution of our securities.

The applicable prospectus supplement will describe the following terms, where applicable, of the warrants in respect of which this prospectus is being delivered:

the title of the warrants;

the aggregate number of the warrants;

the price or prices at which the warrants will be issued;

the currencies in which the price or prices of the warrants may be payable;

the designation, amount, and terms of the offered securities purchasable upon exercise of the warrants;

the designation and terms of the other offered securities, if any, with which the warrants are issued and the number of the warrants issued with each security;

if applicable, the date on and after which the warrants and the offered securities purchasable upon exercise of the warrants will be separately transferable;

the price or prices at which and currency or currencies in which the offered securities purchasable upon exercise of the warrants may be purchased;

the date on which the right to exercise the warrants shall commence and the date on which the right shall expire;

the minimum or maximum amount of the warrants which may be exercised at any one time;

information with respect to book-entry procedures, if any;

a discussion of any federal income tax considerations; and

any other material terms of the warrants, including terms, procedures, and limitations relating to the exchange and exercise of the warrants.

Description of outstanding warrants

In conjunction with a preferred stock financing, we issued to Shaw Communications Inc., or Shaw, in April 1998 a warrant to purchase an indeterminate number of shares of our common stock for an aggregate exercise price of \$0.50. The Shaw warrant is exercisable from time to

time until the date upon which Shaw ceases to own any eligible shares. Eligible shares are shares of (i) common stock received by Shaw upon conversion of its preferred stock, (ii) common stock issued as a result of the exercise of another warrant issued to Shaw by us, and (iii) common stock issued upon exercise of the Shaw warrant. Except under limited circumstances, when we issue securities at less than a specified price as established in the Shaw warrant, we increase the number of shares of our common stock available for Shaw to purchase under the Shaw warrant. The number of shares of common stock purchasable by Shaw upon the exercise of the Shaw warrant is subject to adjustment in the event of a stock dividend, stock split, reclassification or similar event. Until the Shaw warrant is exercised, it does not confer upon Shaw any rights as a stockholder, including, without limitation, the right to vote or receive dividends. We issued equity securities that, as of December 31, 2002 and 2001, required us to issue to Shaw the right to purchase an additional 17,293 and 35,982 shares of our common stock, respectively, pursuant to the Shaw warrant. During the year ended December 31, 2000, no equity securities were issued that resulted in the increase in the number of shares issuable to Shaw pursuant to the Shaw warrant. As of September 30, 2003, the Shaw warrant was exercisable by Shaw for an aggregate of approximately 125,593 shares of our common stock.

In February 2001, we issued a warrant to purchase 200,000 shares of our common stock at a price of \$5.4375 per share in connection with our December 2000 acquisition of TrueChat, Inc. Under the terms of the TrueChat warrant, 100,000 shares subject to the TrueChat warrant were immediately vested and exercisable and the remaining 100,000 shares vested and became exercisable at the rate of 1/24th per month, beginning on January 31, 2001. As of September 30, 2003, the TrueChat warrant was exercisable for an aggregate of 200,000 shares of our common stock.

Plan of distribution

We may offer our securities for sale in one or more transactions, including block transactions, at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at prices determined on a negotiated or competitive bid basis.

We may sell the securities under this prospectus through underwriters, broker-dealers or agents, directly to one or more purchasers, or through a combination of such methods.

The prospectus supplement with respect to the securities being offered will set forth the terms of the offering, including the number and amount of the securities to be sold, information relating to the underwriters, broker-dealers or agents, if any, the purchase price, the public offering price, if applicable, the net proceeds to us, any underwriting discounts or other items constituting compensation to such underwriters, any discounts or concessions allowed or reallocated or paid to broker-dealers and any securities exchange on which such securities may be listed.

Distribution through underwriters

We may offer and sell securities from time to time to one or more underwriters who would purchase the securities as principal for resale to the public, either on a firm commitment or best efforts basis. If we sell securities to underwriter(s), we will execute an underwriting agreement with them at the time of the sale. Any underwriter(s) or agent(s) will be identified,

and their compensation, including their underwriting discount, and the other terms of the offering will be described in the applicable prospectus supplement. If we sell securities to underwriter(s), the securities will be acquired by them for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. These securities may be either offered to the public through underwriting syndicates represented by managing underwriter(s) or by underwriter(s) without a syndicate. The obligations of the underwriter(s) to purchase these securities will be subject to specified conditions precedent and the underwriter(s) will be obligated to purchase all the securities of a series if any are purchased. Any public offering price and any discounts or concessions allowed or reallocated may be changed from time to time.

Distribution through broker-dealers and agents

We may sell our securities through a broker-dealer acting as agent or broker or to a broker-dealer acting as principal. In the latter case, the broker-dealer may then resell such securities to the public at varying prices to be determined by the broker-dealer at the time of resale.

If the applicable prospectus supplement indicates, we will authorize our broker-dealers or agents to solicit offers by particular institutions to purchase the securities under this prospectus from us pursuant to contracts that provide for payment and delivery on a future date. We must approve all institutions, but they may include, among others:

commercial and savings banks;

insurance companies;

pension funds;

investment companies; and

educational and charitable institutions.

The institutional purchaser's obligations under the contract are only subject to the condition that the purchase of the securities under this prospectus at the time of delivery is allowed by the laws that govern the purchaser.

We will describe the terms of any such sales with a broker-dealer or agent in a prospectus supplement.

Direct sales

We may sell directly to, and solicit offers from, institutional investors like those set forth above, individual purchasers, or the public. We will describe the terms of any such sales in a prospectus supplement.

General information

Underwriter(s), broker-dealer(s) and agent(s) that participate in the distribution of our securities may be deemed as underwriters as defined in the Securities Act of 1933 and any discounts or commissions received by them from us and any profit on the resale of these securities by them may be treated as underwriting discounts and commissions under the Securities Act of 1933.

We may have agreements with the underwriter(s), broker-dealer(s) and agent(s) to indemnify them against specific civil liabilities, including liabilities under the Securities Act of 1933, or to contribute with respect to payments which the underwriter(s), broker-dealer(s) or agent(s) may be required to make as a result of those specific civil liabilities.

Except for shares of our common stock, when we issue the securities under this prospectus, they may be new securities without an established trading market. If we sell securities to an underwriter for public offering and sale, the underwriter may make a market for the relevant securities, but the underwriter will not be obligated to do so and could discontinue any market making without notice at any time. Therefore, we cannot give any assurances to you concerning the liquidity of any security under this prospectus. Underwriter(s), broker-dealer(s) and agent(s) and their affiliates may be customers of, engage in transactions with, or perform services for us in the ordinary course of their businesses.

Under the securities laws of some states, the securities registered by the registration statement that includes this prospectus may be sold in those states only through registered or licensed brokers or dealers.

Any person participating in the distribution of the securities registered under the registration statement that includes this prospectus will be subject to applicable provisions of the Securities Exchange Act of 1934, and the applicable rules and regulations of the Securities and Exchange Commission, including, among others, Regulation M, which may limit the timing of purchases and sales of any of our securities by any such person. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of our securities to engage in market-making activities with respect to our securities. These restrictions may affect the marketability of our securities and the ability of any person or entity to engage in market-making activities with respect to our securities.

Legal matters

Morrison & Foerster LLP, San Francisco, California, will issue an opinion about the legality of the securities offered by this prospectus. Any underwriters will be represented by their own legal counsel.

Experts

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements and schedules included in our Annual report on Form 10-K for the year ended December 31, 2002, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedules are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

Where you can find more information

We are subject to the informational reporting requirements of the Securities Exchange Act of 1934, which requires us to file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document that we file at the Public Reference Room of the Securities and Exchange

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Commission at 450 Fifth Street, N.W., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the Securities and Exchange Commission at 1-800-SEC-0330. You may also inspect our filings at the regional offices of the Securities and Exchange Commission or over the Internet at the Securities and Exchange Commission's Web site at <http://www.sec.gov>.

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission. This prospectus omits some information contained in the registration statement in accordance with the rules and regulations of the Securities and Exchange Commission. You should review the information and exhibits in the registration statement for additional information about us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the Securities and Exchange Commission are summaries and do not contain all of the information that may be important to you. You should review the complete document to evaluate these statements.

Our common stock is listed on the Nasdaq National Market under the symbol TERN. Our reports, proxy statements and other information may also be read and copied at the offices of the Nasdaq Stock Market, located at 20 Broad Street, New York, NY 10005.

The Securities and Exchange Commission allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. We incorporate by reference the documents listed below and any future filings made with the Securities and Exchange Commission under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until we sell all of the securities that we have registered under the registration statement which includes this prospectus:

Annual report on Form 10-K for the year ended December 31, 2002, including information specifically incorporated by reference into the Form 10-K from our proxy statement for the 2003 annual meeting of stockholders filed with the Securities and Exchange Commission on April 29, 2003, which includes audited financials for our latest fiscal year.

Quarterly reports on Form 10-Q for the quarters ended March 31, 2003 and June 30, 2003.

Current Reports on Form 8-K filed on February 27, 2003, March 14, 2003, April 1, 2003, April 16, 2003, April 30, 2003, May 9, 2003, May 15, 2003, May 30, 2003, June 24, 2003, July 3, 2003, July 16, 2003, July 28, 2003, July 31, 2003, August 21, 2003 and September 18, 2003.

The description of our common stock is set forth in our registration statement on Form 8-A filed with the Securities and Exchange Commission on July 20, 1998, and any subsequent amendments or reports filed for the purpose of updating this description. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of the information that has been or may be incorporated by reference in this prospectus, other than exhibits to the relevant documents unless they are specifically incorporated by reference into the requested documents. Direct any request for copies to Edward Lopez, Esq., Senior Vice President, General Counsel and Human Resources, at our corporate headquarters located at 4988 Great America Parkway, Santa Clara, California 95054 and our telephone number at that address is (408) 235-5500.

You should rely only on the information contained or incorporated by reference in this prospectus or any applicable prospectus supplement. We have not authorized anyone to provide you with any other information. We may only use this prospectus to sell securities if it is accompanied by a prospectus supplement. We are only offering these securities in states where the offer is permitted. You should not assume that the information in this prospectus or any applicable prospectus supplement is accurate as of any date other than the dates on the front of those documents.

Disclosure of Commission position on indemnification for securities act liabilities

Our amended and restated bylaws provide that we shall indemnify our directors and executive officers to the fullest extent not prohibited by the California General Corporation Law; provided, however, we shall not be required to indemnify any director or executive officer in connection with any proceeding initiated by such person or any proceeding by such person against us or our directors, officers, employees or other agents unless (i) such indemnification is expressly required by law, (ii) the proceeding was authorized by our board of directors, or (iii) such indemnification is provided by us, in our sole discretion, pursuant to the powers vested in us under the California General Corporation Law. We have the power to indemnify our other officers, employees and other agents as set forth in the California General Corporation Law. Pursuant to our bylaws, promptly after receipt of a request for indemnification, a reasonable, good faith determination as to whether indemnification of the director or executive officer is proper under the circumstances because such director or executive officer has met the applicable standard of care shall be made by (A) a majority vote of a quorum consisting of directors who are not parties to such proceeding, (B) if such a quorum is not obtainable, by independent legal counsel in a written opinion, or (C) approval or ratification by the affirmative vote of a majority of our outstanding shares represented and voting at a duly held meeting at which a quorum is present or by written consent of a majority of the outstanding shares entitled to vote, where in each case the shares owned by the person to be indemnified shall not be considered entitled to vote thereon. We have the power to advance, prior to final disposition of any proceeding, all expenses incurred by any director or executive officer in connection with such proceeding upon receipt of an understanding that such person will repay said amounts if it shall be determined ultimately that such person is not entitled to indemnification.

We have entered into agreements with our directors and executive officers that require us to indemnify such persons against any and all expenses (including attorneys' fees), witness fees, damages, judgments, fines and amounts paid in settlement and any other amounts that such person becomes legally obligated to pay in connection with any proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director, officers, employee or other agent of our company or any of our

affiliated enterprises; provided such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to our best interests. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

We also have obtained a policy of directors and officers liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling Terayon pursuant to the foregoing provisions, or otherwise, we have been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933, and is, therefore, unenforceable.

10,800,000 shares

Common stock

Prospectus supplement

(To prospectus dated November 4, 2003)

JPMorgan

CIBC World Markets

Needham & Company, Inc.

Merriman Curhan Ford & Co.

November 6, 2003

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We are offering to sell, and seeking offers to buy, common stock only in jurisdictions where offers and sales are permitted. The information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the respective dates of this prospectus supplement and the accompanying prospectus, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock.