

TERAYON COMMUNICATION SYSTEMS

Form 424B3

January 25, 2001

Prospectus

Filed pursuant to Rule 424(b) (3)
Registration Statement No. 333-53694

TERAYON COMMUNICATION SYSTEMS, INC.

534,487 Shares

Common Stock

The Selling Stockholders: The selling stockholders identified in this prospectus are selling 534,487 shares of our common stock. We are not selling any shares of our common stock under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholders.

Offering Price: The selling stockholders may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how they may sell their shares in the section titled "Plan of Distribution" on page 22.

Trading Market: Our common stock is listed on the Nasdaq National Market under the symbol "TERN." On January 11, 2001, the closing sale price of our common stock, as reported on the Nasdaq National Market, was \$5.875.

Risks: Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 3.

The shares offered or sold under this prospectus have not been approved by the SEC or any state securities commission, nor have these organizations determined that this prospectus is accurate or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 25, 2001

Terayon, TeraComm, TeraLink, TeraPro, TeraView, CherryPicker and the Terayon logo are our trademarks. This prospectus also includes trade dress, trade names and trademarks of other companies. Our use or display of other parties' trademarks, trade dress or products is not intended to and does not imply a relationship with the trademark or trade dress owners.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

We make "forward-looking statements" throughout this prospectus. Whenever you read a statement that is not simply a statement of historical fact (such as when we describe what we "believe," "expect" or "anticipate" will occur, and other similar statements), you must remember that our expectations may not be correct, even though we believe they are reasonable. We do not guarantee that the transactions and events described in this prospectus will happen as

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described (or that they will happen at all). You should read this prospectus completely and with the understanding that actual future results may be materially different from what we expect. We will not update these forward-looking statements, even though our situation may change in the future. Whether actual results will conform with our expectations and predictions is subject to a number of risks and uncertainties including but not limited to:

- . risks associated with the effect of economic conditions;
- . future capital needs;
- . our ability to identify, complete and integrate acquisitions successfully;
- . risks associated with retaining our significant customers;
- . our strategies for reducing the costs of our products;
- . our product development efforts;
- . the impact of competition and technological change on us;
- . industry trends and future growth in the markets for our products;
- . the timing of our introduction of new products and the extent of the deployment of our products by our customers;
- . our dependence on industry trends and the future growth in the markets for cable modem systems and other broadband access systems;
- . the impact of legislation and regulation;
- . the effect of GAAP accounting pronouncements on our recognition of revenues;
- . the loss of key employees; and
- . the loss associated with future and pending litigation matters, as they may arise.

You should read carefully the section of this prospectus under the heading "Risk Factors" beginning on page 3. We assume no responsibility for updating forward-looking information contained in this prospectus.

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PROSPECTUS SUMMARY

The following is a summary of our business. You should carefully read the section entitled "Risk Factors" in this prospectus, our Annual Report on Form 10-K for the year ended December 31, 1999, as amended on Form 10-K/A filed on April 28, 2000, our Quarterly Report on Form 10-Q for the quarter ended September 30, 2000, as amended by the Form 10-Q/A filed with the SEC on November 15, 2000, our Report on Form 8-K filed with the SEC on July 18, 2000, our Report on Form 8-K filed with the SEC on October 5, 2000, our Report on Form 8-K filed with the SEC on October 23, 2000 and our Report on Form 8-K filed with the SEC on January 9, 2001 for more information on our business and the risks involved in investing in our stock.

In addition to the historical information contained in this prospectus, this prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act of

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1934. These statements may be identified by the use of words such as "expects," "anticipates," "intends," "plans" and similar expressions. The outcome of the events described in these forward-looking statements is subject to risks and actual results could differ materially. The sections entitled "Risk Factors" beginning on page 3 of this prospectus, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" in our Annual Report, Quarterly Report, Form 8-K filed in July 2000 and Forms 8-K filed in October 2000 contain a discussion of some of the factors that could contribute to those differences.

Terayon

Overview

We develop, market and sell broadband access systems that enable cable operators and other providers of broadband access services to cost effectively deploy reliable broadband access services over cable, copper wire utilizing digital subscriber line technology (or DSL) and wireless systems. We have substantial development and marketing resources focused on cable operators. However, through internal development and recent acquisitions of complementary technology and businesses, we also are focusing on service providers that offer broadband access through existing copper wire infrastructures and wireless systems.

In recent years, the volume of bandwidth-intensive data, voice and video traffic across existing cable infrastructure, the Internet, corporate intranets and other public networks has increased dramatically. International Data Corporation estimates that the number of worldwide Internet users will increase from approximately 200 million at the end of 2000 to more than one billion by the end of 2005. IDC estimates that the number of homes in the United States with broadband access will increase from two million at the end of 1999 to 20 million by the end of 2003. As a result of the rapid evolution of broadband access, cable operators, providers of telephone services and other service providers are providing a bundle of voice, data and video services to their residential and commercial subscribers over existing and new infrastructures.

Our objective is to be the leading provider of broadband access systems to providers of broadband services that use existing cable, copper wire (DSL) and wireless networks to offer services to residential and commercial customers. Key elements of our strategy include the following:

- . build a complete portfolio of broadband products;
- . supply leading broadband service providers worldwide;
- . increase our presence in existing and new markets;
- . extend technology leadership and advance industry standards; and
- . provide superior customer support.

Our primary product is the TeraComm system, which is based on our patented Synchronous Code Division Multiple Access or "S-CDMA" technology. Our S-CDMA technology enables reliable two-way broadband data

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communications over both pure coaxial and hybrid fiber/coax cable infrastructure and is designed to enable cable operators to maximize the capacity and reliability of broadband data services over any cable plant. In furtherance of our strategy to provide a complete portfolio of broadband products, we have

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recently completed several acquisitions of complementary broadband technologies, including digital video management systems, DSL and wireless.

We sell our broadband access products to cable operators and other providers of broadband access services through direct sales forces in North America, South America, Europe and Asia. We also distribute our products via distributors and systems integrators. Companies currently using or distributing our TeraComm system include Rogers Communications, Inc., Shaw Communications, Inc., TCA Cable TV, Inc. (a subsidiary of Cox Communications, Inc.), United Pan-Europe Communications and Crossbeam Networks Corporation, a wholly owned subsidiary of Sumitomo Corporation. Companies currently using our DSL products include major ILEC's (Incumbent Local Exchange Carriers) in the United States, including SBC, Bell Atlantic, Bell South, U.S. West and GTE.

Our company was incorporated in California in January 1993 and reincorporated in Delaware in July 1998. Our executive offices are located at 2952 Bunker Hill Lane, Santa Clara, California 95054 and our telephone number is (408) 727-4400. Our Web site is located at www.terayon.com. Information contained on our Web site does not constitute part of this offering memorandum.

Recent Events

In December 2000, we acquired TrueChat, Inc., a company that develops communication systems that enable multimedia teleconferencing and provides increased control over teleconference parameters.

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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 our company. 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.

We Have a Limited Operating History and a History of Losses.

We have a limited operating history, and it is difficult to predict our future operating results. We began shipping products commercially in June 1997, and we only have been shipping products in volume since the first quarter of 1998. As of September 30, 2000, we had an accumulated deficit of \$ 237,624,000. We believe that we will continue to experience net losses for the foreseeable future. Most of our expenses are fixed in advance, and we generally are unable to reduce our expenses significantly in the short term to compensate for any unexpected delay or decrease in anticipated revenues. We expect to continue to increase expenses for the foreseeable future to support increased sales and marketing and technical support costs. Any significant delay in our anticipated revenues or commercialization of new products would harm our business. The revenue and profit potential of our business and our industry are unproven. We had negative gross margins from our inception until the fourth quarter of 1998, and any future revenue growth may not result in positive gross margins or operating profits in future periods.

Our Operating Results May Fluctuate.

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

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- . variations in the timing of orders and shipments of our products;
- . variations in the size of the orders by our customers;
- . new product introductions by competitors;
- . delays in our introduction of new products;
- . delays in our receipt of orders forecasted by our customers;
- . delays by our customers in the completion of upgrades to their cable infrastructure;
- . variations in capital spending budgets of broadband access service providers;
- . adoption of industry standards and the inclusion in or compatibility of our technology with any such standards; and
- . delays in obtaining regulatory approval for commercial deployment of cable modem systems.

Our expenses generally will vary from quarter to quarter depending on the level of actual and anticipated business activities. Research and development expenses will vary as we begin development of new products and as our development programs move to wafer fabrication and prototype development, which results in higher engineering expenses.

A variety of factors affect our gross margin, including the following:

- . the sales mix of our products;
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- . the volume of products manufactured;
 - . the type of distribution channel through which we sell our products;
 - . the average selling prices or "ASPs" of our products; and
 - . the effectiveness of our cost reduction measures.

We anticipate that unit ASPs of our products will decline in the future. This could cause a decrease in the gross margins for these products. In addition, the maturity of TeraComm system deployments affects our gross margin. New deployments of the TeraComm system involve the sale of headend equipment (which has higher margins) and generally involve smaller quantities of product. New deployments typically are sold at higher margins than the larger volume sales of product associated with more mature deployments of the TeraComm system. The sales mix of TeraLink 1000 Master Controllers, TeraLink Gateways and TeraPro cable modems also affects our gross margin. The TeraPro cable modems have significantly lower margins than the TeraLink 1000 Master Controller and TeraLink Gateway headend products. We expect to achieve significantly lower margins on the TeraPro cable modems for the foreseeable future. Further, we expect that sales of TeraPro cable modems will continue to constitute a significant portion of our revenues for the foreseeable future.

We also anticipate that our operating results will be impacted by sales, gross profit and operating expenses of acquired companies. The impact of these factors on our operating results will vary as we acquire additional companies.

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We Are Dependent on a Small Number of Customers.

Three customers (two of which are related parties) accounted for approximately 50% of our revenues for the quarter ended September 30, 2000. We believe that a substantial majority of our revenues will continue to be derived from sales to a relatively small number of customers for the foreseeable future. In addition, we believe that sales to these customers will be focused on a limited number of projects.

The cable industry is undergoing significant consolidation in North America and internationally, and a limited number of cable operators controls an increasing number of cable systems. Currently, ten cable operators in the United States own and operate facilities passing approximately 86% of total homes passed. In addition, the North American DSL market is concentrated with the major ILECs, constituting a significant percentage of the market. As a result, our sales will be largely dependent upon product acceptance by the leading broadband service providers. Currently, the timing and size of each customer's order is critical to our operating results. Our major customers are likely to have significant negotiating leverage and may attempt to change the terms, including pricing, upon which we do business with them. These customers also may require longer payment terms than we anticipate, which could require us to raise additional capital to meet our working capital requirements.

Acquisitions Could Result In Dilution, Operating Difficulties and Other Adverse Consequences.

We have acquired ten businesses since September 1999: Imedia Corporation in September 1999; Radwiz Ltd. in November 1999; Telegate Ltd. in January 2000; Access Network Electronics Division of Tyco Electronics Corporation in April 2000; ComBox Ltd. in April 2000; some assets of Internet Telecom Ltd. in April 2000; Ultracom Communication Holdings (1995) Ltd. in April 2000; Mainsail Networks, Inc. in September 2000; Digital Transmission Equipment in September 2000; and TrueChat, Inc. in December 2000. If appropriate opportunities present themselves, we intend to acquire additional businesses, technologies, services or products that we believe are strategic. The process of integrating any acquired business into our business and operations is risky and may create unforeseen operating difficulties and expenditures. The areas in which we may face difficulties include:

- . diversion of management time (both ours and that of the acquired companies) during the period of negotiation through closing and after closing from the ongoing development of our businesses, issues of integration and future products;
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- . decline in employee morale and retention issues resulting from changes in compensation, reporting relationships, future prospects or the direction of the business;
- . the need to integrate each company's accounting, management information, human resource and other administrative systems to permit effective management, and the lack of control if this integration is delayed or not implemented; and
- . the need to implement controls, procedures and policies appropriate for a larger public group of companies that prior to acquisition had been smaller, private companies.

We have very limited experience in managing this integration process.

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Moreover, the anticipated benefits of any or all of these completed or pending acquisitions may not be realized.

Future acquisitions could result in potentially dilutive issuances of equity securities, the incurrence of additional debt, contingent liabilities or amortization expenses related to goodwill and other intangible assets, any of which could harm our business. Future acquisitions also could require us to obtain additional equity or debt financing, which may not be available on favorable terms or at all.

The Sales Cycle for Our Products Is Lengthy.

The sales cycle associated with our products typically is lengthy, often lasting six months to a year. Our customers typically conduct significant technical evaluations of competing technologies prior to the commitment of capital and other resources. In addition, purchasing decisions may be delayed because of our customers' internal budget approval procedures. Sales also generally are subject to customer trials, which typically last three months. Because of the lengthy sales cycle and the large size of customers' orders, if orders forecasted for a specific customer for a particular quarter do not occur in that quarter, our operating results for that quarter could suffer.

There Are Many Risks Associated with Our Participation in the Establishment of Advanced Physical Layer Specifications to Be Added to DOCSIS.

In November 1998, CableLabs selected us to co-author DOCSIS 1.2 (Data Over Cable Service Interface Specifications), an enhanced version of the DOCSIS cable modem specification based in part on our S-CDMA technology. In September 1999, CableLabs indicated that it intended to proceed with the advanced physical layer ("PHY") work on two parallel tracks: one for the development of a prototype based on our S-CDMA technology and one for the inclusion of Advanced TDMA technology (Time Division Multiple Access), as proposed by other companies. In February 2000, CableLabs further clarified the status of the advanced PHY project regarding a separate release that will include TDMA technologies. In addition, CableLabs reiterated that it is continuing to work with us on the development of a DOCSIS specification that could include our S-CDMA technology. To that end, CableLabs has requested that we submit a prototype of a DOCSIS system that incorporates an S-CDMA advanced PHY capability for testing. CableLabs has stated that if the testing of this prototype reveals that the S-CDMA advanced PHY works as claimed (including proper backwards compatibility and coexistence with the other aspects of DOCSIS), and if the costs for adding S-CDMA to DOCSIS products are in line with estimates, then it is likely, but not certain, that S-CDMA advanced PHY capabilities will be included in a future version of the DOCSIS specification. The prototype we submit to CableLabs may fail to demonstrate the level of performance that CableLabs seeks; even if it does meet performance expectations there can be no guarantee that CableLabs will incorporate the technology into a future version of DOCSIS specifications. In addition, if CableLabs does proceed to include S-CDMA in a future DOCSIS specification, there can be no guarantee that the DOCSIS S-CDMA specification will be the same as the specification we incorporated in the prototype submitted for tests, which may require us to further develop our prototype.

Our future revenues and operating results are likely to suffer if S-CDMA is not included in a future release of DOCSIS. We also may incur substantial additional research and development expenditures to adapt our specifications to the version adopted by CableLabs. CableLabs has not established a schedule for adding the S-CDMA capabilities to the DOCSIS specifications. Delays in the establishment of a final specification for S-CDMA in DOCSIS could harm our plans to sell DOCSIS compatible modems and headend equipment. In particular, if the

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final DOCSIS S-CDMA specification is not approved prior to the time when we are ready to ship DOCSIS products with S-CDMA features included, then we may be required to delay the introduction of those products until the DOCSIS S-CDMA specification is released or to introduce the S-CDMA features as proprietary enhancements to a standard DOCSIS product. Either one of these events could harm revenues and operating results.

We have already given CableLabs assurances that we will contribute some aspects of our proprietary S-CDMA technology to a royalty-free intellectual property pool, if S-CDMA is included in a future version of DOCSIS specifications. This royalty-free pool has been established by CableLabs to facilitate the participation of as many vendors as possible in providing equipment that is compatible with the DOCSIS specifications. As a result, any of our competitors who join the DOCSIS intellectual property pool would have access to some aspects of our technology and would not be required to pay us any royalties or other compensation. If a competitor is able to duplicate the functionality and capabilities of our technology, we could lose some or all of the time-to-market advantage we might otherwise have, which could harm our future revenues and operating results.

We believe the addition of advanced upstream PHY capabilities to DOCSIS will increase the overall market for DOCSIS-compatible products, and as such will result in increased competition in the cable modem market. This competition could come from existing competitors or from new competitors who enter the market as a result of the enhancements to the specifications. This increased competition is likely to result in lower ASPs of cable modem systems and could harm revenues and gross margins. Because our competitors will be able to incorporate some aspects of our technology into their products, our current customers may choose alternate suppliers or choose to purchase DOCSIS-compliant cable modems with advanced PHY capabilities from multiple suppliers. We may be unable to produce DOCSIS compliant cable modems with advanced PHY capabilities more quickly or at lower cost than our competitors. The inclusion of our S-CDMA technology in future DOCSIS specification could result in increased competition for the services of our existing employees who have experience with S-CDMA. The loss of these employees to one or more competitors could harm our business.

DOCSIS standards have not yet been accepted in Europe and Asia. An alternate standard for cable modem systems, called the EuroModem standard, or DAVIC/DVB, has been formalized, and some European cable system operators have embraced it. We intend to develop and sell products that comply with the EuroModem standard and to pursue having portions of our S-CDMA technology included in a future version of the EuroModem standard. We may be unsuccessful in these efforts.

We Need to Develop New Products in Order to Remain Competitive.

Our future success will depend in part on our ability to develop, introduce and market new products in a timely manner. We also must respond to competitive pressures, evolving industry standards and technological advances. Our current S-CDMA products are not DOCSIS-compliant. We are currently developing a prototype of a DOCSIS system that incorporates an S-CDMA advanced PHY capability for testing and eventual inclusion in the DOCSIS standard. There is no guarantee that we will be successful in developing the prototype or that the prototype, if successfully developed, will be included in a future release of the DOCSIS standard. We anticipate that during the year 2001, existing or potential customers may delay purchases of our TeraComm system in order to purchase systems that comply with the DOCSIS standard. In addition, potential new customers could decide to purchase DOCSIS-compliant products from one or more of our competitors rather than from us. As a result, our product sales may be lower than we anticipate. In order to promote sales of our current products, we may be required to reduce our prices for sales to existing customers. This

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would harm our operating results and gross margin.

As a result of the inclusion of TDMA technology in the new DOCSIS version announced by CableLabs in February 2000, we will have to incorporate advanced TDMA technology into our DOCSIS-compliant products. If we are unable to do this effectively, or in a timely manner, we will lose some or all of the time-to-market advantage we might otherwise have had.

Our future success will also depend on our ability to develop and market products for broadband applications over DSL and wireless networks. The markets for these broadband applications are also subject to evolving standards, such as NEBS compliance in the North American DSL market, and technological advances in these arenas. There is no guarantee that we will be successful in developing products that are compliant with these standards or that we will be successful in keeping pace with future technological advances in this arena.

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Average Selling Prices of Broadband Access Equipment Typically Decrease.

The broadband access systems market has been characterized by erosion of average selling prices. We expect this to continue. This erosion is due to a number of factors, including competition, rapid technological change and price performance enhancements. The ASPs for our products may be lower than expected as a result of competitive pricing pressures, our promotional programs and customers who negotiate price reductions in exchange for longer term purchase commitments. We anticipate that ASPs and gross margins for our products will decrease over product life cycles. In addition, we believe that the widespread adoption of industry standards is likely to further erode ASPs, particularly for cable modems and other similar consumer premise equipment. It is likely that the widespread adoption of industry standards will result in increased retail distribution of cable modems and other similar consumer premise equipment, which could put further price pressure on our products. Decreasing ASPs could result in decreased revenue even if the number of units sold increases. As a result, we may experience substantial period-to-period fluctuations in future operating results due to ASP erosion. Therefore, we must continue to develop and introduce on a timely basis 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.

We Must Achieve Cost Reductions.

Certain of our competitors currently offer products at prices lower than ours. Market acceptance of our products will depend in part on reductions in the unit cost of our products. We expect that as headend equipment becomes more widely deployed, the price of cable modems and other similar consumer premise equipment will decline. In particular, we believe that the widespread adoption of industry standards such as DOCSIS will cause increased price competition for consumer premise equipment. However, we may be unable to reduce the cost of our products sufficiently to enable us to compete with other suppliers. Our cost reduction efforts may not allow us to keep pace with competitive pricing pressures or lead to gross margin improvement.

Some of our competitors are larger and manufacture products in significantly greater quantities than we intend to for the foreseeable future. Consequently, these competitors have more leverage in obtaining favorable pricing from suppliers and manufacturers. In order to remain competitive, we must significantly reduce the cost of manufacturing our cable modems through design and engineering changes. We may not be successful in redesigning our products. Even if we are successful, our redesign may be delayed or may contain significant errors and product defects. In addition, any redesign may not result

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in sufficient cost reductions to allow us to significantly reduce the list price of our products or improve our gross margin. Reductions in our manufacturing costs will require us to use more highly integrated components 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. We could incur expenses without related revenues if we enter into a high volume or long-term purchase or manufacturing agreement and then decide that we cannot use the products or services offered by such agreement.

We Must Keep Pace with Rapid Technological Change to Remain Competitive.

The markets for our products are characterized by rapid technological change, evolving industry standards, changes in end-user requirements and frequent new product introductions and enhancements. Our future success will depend upon our ability to enhance our existing products and to develop and introduce new products that achieve market acceptance. Providers of broadband access services may adopt alternative technologies or they may deploy alternative services that are incompatible with our products.

The demand for broadband access services has resulted in the development of several competing modulation technologies. For example, some of our cable products utilize a modulation technology known as S-CDMA, while several of our competitors utilize modulation technologies known as TDMA and Frequency Division Multiple Access or "FDMA." Our headend equipment and cable modem products currently are not interoperable with the headend equipment and modems of other suppliers of broadband access products. As a result, potential customers who wish to purchase broadband access products from multiple suppliers may be reluctant to purchase our products. Although our technology may be incorporated into a future version of a DOCSIS specification or another industry standard, we cannot be certain that major cable operators will adopt these standards. Major cable operators may not adopt products or technologies based on our current proprietary S-CDMA technology or on any future industry

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standard S-CDMA technology. Further, major cable operators may adopt products or standards technologies based on competing modulation technologies. If competitors using other modulation technologies can incorporate functionality and capabilities currently found in S-CDMA, the value of our S-CDMA technology would be diminished.

Broadband Access Services Have Not Achieved Widespread Market Acceptance, and Many Competing Technologies Exist.

Our success will depend upon the widespread commercial acceptance of broadband access services by service providers and end users of broadband access services. The market for these services is not fully developed. We cannot accurately predict the future growth rate or the ultimate size of the market for broadband access services. Potential users of our products may have concerns regarding the security, reliability, cost, ease of installation and use and capability of broadband access services in general.

The market for our products may be impacted by the development of other technologies that enable the provisioning of broadband access services and the deployment of services over other media. Widespread acceptance of other technologies or deployment of services over media not supported by our products could materially limit acceptance of our broadband access systems. Broadband access services based on our products and technology may fail to gain widespread commercial acceptance by providers of broadband access services and end users. In addition, we only recently began to offer products based on alternate

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technologies such as DSL. We may not be successful in marketing and selling these products.

We Need to Develop Additional Distribution Channels.

We presently market our TeraComm system to cable operators and systems integrators. We believe that much of the North American cable modem market may shift to a retail distribution model. Accordingly, we may need to redirect our future marketing efforts to sell our cable modems directly to retail distributors and end users. This shift would require us to establish new distribution channels for our products.

We May Be Unable to Establish These Additional Distribution Channels.

If we do establish them, we may be unable to hire the additional personnel necessary to foster and enhance such distribution channels. In addition, if the cable modem market shifts to a retail distribution model, we may not successfully establish a retail distribution presence. To the extent that large consumer electronics companies enter the cable modem market, their well-established retail distribution capabilities would provide them with a significant competitive advantage. We may be unable to market effectively to broadband access service providers. Our growth and future success will be substantially dependent upon our ability to convince providers of broadband access services to adopt our technologies, purchase our products and effectively market our products to end users. Our potential customers are likely to prefer purchasing products from established manufacturing companies that can demonstrate the capability to supply large volumes of products on short notice. In addition, many of our potential customers may be reluctant to adopt technologies that have not gained acceptance among other providers of similar services. This reluctance could result in lengthy product testing and acceptance cycles for our products. Consequently, the impediments to our initial sales may be even greater than those to later sales.

No established distribution network in the cable modem industry exists that would provide us with easy access to smaller or geographically diverse cable operators. Therefore, our initial sales to larger, more established cable operators are critical to our business. Although we intend to establish strategic relationships with leading distributors worldwide, 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 cable operators. Some of our competitors have already established relationships with certain cable operators. These established relationships may further limit our ability to sell products to those cable operators. We do not have long, well-established relationships with those cable operators. If we were to sell our products to those cable operators, it would likely not be based on long-term contracts and those customers would be able to terminate their relationships with us at any time.

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In addition, one or more of our current customers could cancel its relationship with us at any time. We have recently begun marketing and selling our products to providers of DSL and wireless broadband services and thus we have very limited experience. We do not have long, well-established relationships with these providers, and we may not be successful in establishing these relationships.

We Are Dependent on Broadband Service Providers Choosing to Offer Additional Services to Their Customers.

We depend on cable operators to purchase our cable modem systems and to

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provide our cable modems to end users. Cable operators have a limited amount of available bandwidth over which they can offer robust data services, and they may not choose to provide these data services to their customers. If cable operators choose to provide these services, we also will depend upon them to market these services to cable customers, to install our equipment and to provide support to end users. In addition, we will be highly dependent on cable operators to continue to maintain their cable infrastructure in a manner that allows us to provide consistently high performance and reliable services. Our success also will depend upon the acceptance of our products by other providers of services to the cable industry, such as Excite@Home's @Home Network and Road Runner, a joint venture between MediaOne Group, Inc. and Time Warner Cable. Sales of our DSL and wireless products are also dependent on service providers choosing to purchase our products and to provide additional services to their end users.

Sales of Our Cable Products Are Dependent on the Cable Industry Upgrading to Two-Way Cable Infrastructure.

Demand for our products will depend, to a significant degree, upon the magnitude and timing of capital spending by cable operators for implementation of access systems for data transmission over cable networks. This involves the enabling of two-way transmission over existing coaxial cable networks and the eventual upgrade to HFC in areas of higher penetration of data services. If cable operators fail to complete these upgrades of their cable infrastructures in a timely and satisfactory manner, the market for our products could be limited. In addition, few businesses in the United States currently have cable access. Cable operators may not choose to upgrade existing residential cable systems or to install new cable systems to serve business locations.

The success and future growth of our business will be subject to economic and other factors affecting the cable television industry generally, particularly its ability to finance substantial capital expenditures. Capital spending levels in the cable industry in the United States have fluctuated significantly in the past, and we believe that such fluctuations will occur in the future. The capital spending patterns of cable operators are dependent on a variety of factors, including the following:

- . the availability of financing;
- . cable operators' 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 cable services;
- . competitive pressures (including the availability of alternative data transmission and access technologies);
- . discretionary consumer spending patterns; and
- . general economic conditions.

In recent periods, the United States cable market has been characterized by the acquisition of smaller and independent cable operators by large cable operators. We cannot predict the effect, if any, that consolidation in the

United States cable industry will have on overall capital spending patterns by

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cable operators. The effect on our business of further industry consolidation also is uncertain.

Supply of Our Products May Be Limited by Our Ability to Forecast Demand Accurately.

The emerging nature of the broadband access services market makes it difficult for us to accurately forecast demand for our products. Our inability to accurately forecast the actual demand for our products could result in supply, manufacturing or testing capacity constraints. These constraints could result in delays in the delivery of our products or the loss of existing or potential customers, either of which could have a negative impact on our business, operating results or financial condition. In addition, we had unconditional purchase obligations of approximately \$300,100,000 as of September 30, 2000, primarily to purchase minimum quantities of 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 Are Dependent on Key Third-Party Suppliers.

We manufacture all of our products using components or subassemblies procured from third-party suppliers. Some of these components are available from a single source and others are available from limited sources. All of our sales are from products containing one or more components that are available only from single supply sources. In addition, some of the components are custom parts produced to our specifications. For example, we currently rely on Philips Semiconductors, Inc. to supply a custom ASIC that is used in our products. Other components, such as the radio frequency tuner and some surface acoustic wave filters, are procured from sole source suppliers. Any interruption in the operations of vendors of sole source parts could adversely affect our ability to meet our scheduled product deliveries to customers. We are dependent on semiconductor manufacturers and are affected by worldwide conditions in the semiconductor market. 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. Further, a significant increase in the price of one or more of these components could harm our gross margin or operating results.

Shortages in Supplies of Components May Impair Our Ability to Meet Customer Demands.

Due to increasing demand for electronic and communications equipment, the worldwide market for component parts is currently constrained. Delays in key component or product deliveries may occur due to shortages resulting from a limited number of suppliers, the financial or other difficulties of such suppliers or a limitation in component product availability. Due to these current market conditions, we face the risk of possible shortages of certain key components that could result in product performance shortfalls and reduced control over or delay in delivery schedules, manufacturing capability, quality and costs, all of which could impair our ability to produce enough product to meet our customer demand. In addition, in order to fulfill demand for our products, we may have to purchase these components on the spot market at a price that may be higher than we have experienced in the past.

Although we work closely with our suppliers to avoid these types of shortages, there can be no assurance that we will not encounter these problems in the future. While our suppliers have performed effectively and been relatively flexible to date, we believe that we will be faced with the following challenges going forward:

- . new markets in which we participate may grow quickly and consume

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component capacity; and

- . as we continue to acquire companies and new technologies, we are dependent, at least initially, on unfamiliar supply chains or relatively small supply partners.

Manufacturing capacity and component supply constraints could be significant issues for us. If we were unable to obtain adequate quantities of significant component materials on a timely basis, our business and our customer relationships would be adversely affected. If we are unable to satisfy our customers' demand, our customers could decide to purchase products from our competitors. Inability to meet demand, or a decision by one or more of our customers to purchase from our competitors, could harm our operating results.

10.

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 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 manufacture, assembly or testing of 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 time. 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.

There Are Many Risks Associated with International Operations.

Sales to customers outside of the United States accounted for approximately 84% of our revenues in 1999 and approximately 74% of our revenues in 1998. We expect sales to customers outside of the United States to continue to represent a significant percentage of our revenues for the foreseeable future. International sales are subject to a number of risks, including the following:

- . changes in foreign government regulations and communications standards;
- . export license requirements, tariffs and taxes;
- . other trade barriers;

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- . difficulty in protecting intellectual property;
- . difficulty in collecting accounts receivable;
- . difficulty in managing foreign operations; and
- . political and economic instability.

If our customers are affected by currency devaluations or general economic crises, such as the recent economic crisis affecting many Asian 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 the United States. Foreign markets for our products may develop more slowly than currently anticipated. Foreign countries may decide not to construct cable infrastructure or may prohibit, terminate or delay the construction of new cable plants for a variety of reasons. These reasons include environmental issues, economic downturns, the availability of favorable pricing for other communications services or the availability and cost of related equipment. Any action like this by foreign countries would reduce the market for our products.

11.

We anticipate that our foreign sales generally will be invoiced in U.S. dollars, and we currently do not plan to engage in foreign currency hedging transactions. However, as we commence and expand our international operations, we may be paid in foreign currencies and exposure to losses in foreign currency transactions may increase. We may 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.

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 broadband access systems, particularly in the initial deployment and implementation stages. To date our sales have been concentrated in a small number of customers. We have limited experience with widespread deployment of our products to a diverse customer base. 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. 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 relationship with our customers and could prevent us from gaining new customers.

Our Industry Is Highly Competitive with Many Established Competitors.

The market for broadband access systems is extremely competitive and is characterized by rapid technological change. Our direct competitors in the cable access systems arena include Cisco Systems, Com21, General Instrument, Matsushita Electric Industrial (which markets products under the brand name "Panasonic"), Motorola, Nortel Networks, Vyyo, Thomson Consumer Electronics (which markets products under the brand name "RCA"), Samsung, Scientific-Atlanta, Sony, 3Com, Toshiba and Zenith Electronics. We also compete with companies that develop integrated circuits for broadband access products, such

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as Broadcom, Conexant and Texas Instruments. We also sell products that compete with existing data access and transmission systems utilizing the telecommunications networks, such as those of 3Com. Additionally, our controller and headend system products face intense competition from well-established companies such as Cisco, Nortel and 3Com. In addition, we compete with companies in the DSL arena such as ECI, Charles Industries, Pairgain, Copper Mountain, Accelerated Networks, Integral Access and VINA Technologies. As standards, such as DOCSIS, are developed for broadband access systems, other companies may enter the broadband access systems market. 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 capability;
- . technical support and service;
- . relationships with providers of broadband access services; and
- . compliance with industry standards.

Some of these factors are outside of our control. The existing conditions in the broadband access 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

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competitors may introduce broadband access products that are less costly, provide superior performance or achieve greater market acceptance than our products.

Many of our current and potential competitors have significantly greater financial, technical, marketing, distribution, customer support and other resources, as well as greater name recognition and access to customers than we do. The anticipated widespread adoption of DOCSIS and other industry standards is likely to cause increased worldwide price competition, particularly in the North American market. The adoption of DOCSIS and these other standards also could result in lower sales of our TeraComm system, including the higher margin headend products. Any increased price competition or reduction in sales of our headend products would result in downward pressure on our gross margin. We cannot accurately predict how the competitive pressures that we face will affect our business.

Our Business Is Dependent on the Internet and the Development of the Internet Infrastructure.

Our success will depend in large part on increased use of the Internet to increase the need for high speed broadband access networks. Critical issues concerning the commercial use of the Internet remain largely unresolved and are likely to affect the development of the market for our products. These issues include security, reliability, cost, ease of access and quality of service. Our success also will depend on the growth of the use of the Internet by businesses, particularly for applications that utilize multimedia content and thus require high bandwidth. The recent growth in the use of the Internet has caused frequent periods of performance degradation. This has required the upgrade of

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routers, telecommunications links and other components forming the infrastructure of the Internet by Internet service providers and other organizations with links to the Internet. Any perceived degradation in the performance of the Internet as a whole could undermine the benefits of our products. Potentially increased performance provided by our products and the products of others ultimately is limited by and reliant upon the speed and reliability of the Internet backbone itself. Consequently, the emergence and growth of the market for our products will depend on improvements being made to the entire Internet infrastructure to alleviate overloading and congestion.

Our Failure to Manage Growth Could Adversely Affect Us.

The growth of our business has placed, and is expected to continue to place, a significant strain on our limited personnel, management and other resources. Our management, personnel, systems, procedures and controls may be inadequate to support our existing and future operations. To manage any future growth effectively, we will need to attract, train, motivate, manage and retain employees successfully, to integrate new employees into our overall operations and to continue to improve our operational, financial and management systems.

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 personnel is intense. The loss of any of these individuals, particularly our Chairman, President and Chief Technical Officer, Shlomo Rakib, and our Chief Executive Officer, Zaki Rakib, would harm our business. In addition, if we are unable to hire additional qualified personnel as needed, we may be unable to adequately manage and complete our existing sales commitments and to bid for and execute additional sales. Further, we must train and manage our growing employee base, which is likely to require increased levels of responsibility for both existing and new management personnel. Our current management personnel and systems may be inadequate, and we may fail to assimilate new employees successfully.

Highly skilled employees with the education and training that we require, especially employees with significant experience and expertise in both data networking and radio frequency design, are in high demand. We may not be able to continue to attract and retain the 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 of our company can terminate his or her relationship with us at any time. Our employees generally are not bound by non-competition agreements with us.

13.

Our Business Is Subject to the Risks of Product Returns, Product Liability and Product Defects.

Products as complex as ours 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 our company or our customers. This occurrence also could result in the loss of or delay in market acceptance of our products. Due to the recent introduction of our products, we have limited experience with the problems that could arise with this generation of products. However, the limitation of liability provision contained in our purchase agreements 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. We have not experienced any product liability claims to date, but the

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sale and support of our products entails the risk of such 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 management time and 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. Our pending patent applications may not be granted. Even if they are granted, the claims covered by the patents 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 taking a license from us. We have entered into confidentiality and invention assignment agreements with our employees, and we enter into non-disclosure agreements with some of our suppliers, distributors and appropriate customers so as to limit access to and disclosure of our proprietary information. These statutory and contractual arrangements may not prove sufficient to prevent misappropriation of our technology or to deter independent third-party development of similar technologies. In addition, the laws of some foreign countries might not protect our products or intellectual property rights to the same extent as do the laws of the United States. Protection of our intellectual property might not be available in every country in which our products might be manufactured, marketed or sold.

In November 1998, CableLabs selected us to co-author DOCSIS 1.2, an enhanced version of the DOCSIS cable modem specification based in part on our S-CDMA technology. In September 1999, CableLabs indicated that it intended to proceed with the advanced PHY work on two parallel tracks: one for the development of a prototype based on our S-CDMA technology and one for the inclusion of Advanced TDMA technology, as proposed by other companies. In February 2000, CableLabs further clarified the status of the advanced PHY project regarding a separate release that will include TDMA technologies. In addition, CableLabs reiterated that it is continuing to work with us on the development of a DOCSIS specification that could include our S-CDMA technology. To that end, we have indicated to CableLabs that we would contribute some aspects of our S-CDMA technology to the DOCSIS intellectual property pool if and when a DOCSIS specification is approved that includes our S-CDMA technology.

We would contribute our technology pursuant to a license agreement with CableLabs that we would execute at that time, and which contains the terms that CableLabs has established for the inclusion of any intellectual property from any source in the DOCSIS specifications. Under the terms of the proposed license agreement, we would grant to CableLabs a royalty-free license for those aspects of our S-CDMA technology that are essential for compliance with the DOCSIS cable modem standard. So-called "implementation know how" is not covered by this license-only those aspects of the technology that are essential to implementing a compliant product. CableLabs would have the right to extend royalty-free sublicenses to companies that wish to build DOCSIS-compatible products. These sublicenses would allow participating companies to utilize and incorporate the essential portions of the S-CDMA technology on a royalty-free basis for the limited use of making and selling products or systems that comply with the DOCSIS cable modem specification. We have already joined the DOCSIS intellectual property pool and, as a result, we have a royalty-free sublicense that allows us to ship DOCSIS-compatible products which contain intellectual property submitted by other companies. The scope of this license would not extend to the use of the S-CDMA technology in other areas; only for products

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that comply with the DOCSIS specifications. As a result, any of our competitors who join or have joined the DOCSIS intellectual property pool will have access to some aspects of our technology without being required to pay us any royalties or other compensation. If and when we submit S-CDMA to the DOCSIS Intellectual Property pool, we are in no way restricted from entering into royalty-bearing

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license agreements with companies that wish to use the S-CDMA technology for purposes other than implementing DOCSIS compatible products, or that do not wish to enter into the DOCSIS intellectual property pool. Further, some of our competitors have been successful in reverse engineering the technology of other companies, and the inclusion of S-CDMA in a future DOCSIS specification would expose some aspects of our technology to those competitors. DOCSIS specifications are available on an open basis once they are approved, not only to companies that are members of the DOCSIS IP Pool. If a competitor is able to duplicate the functionality and capabilities of our technology, we could lose all or some of the time-to-market advantage we might otherwise have. Under the terms of the proposed license agreement, if we sue certain parties to the proposed license agreement on claims of infringement of any copyright or patent right or misappropriation of any trade secret, those parties may terminate our license to the patents or copyrights they contributed to the DOCSIS intellectual property pool. If a termination like this were to occur, we would continue to have access to some aspects of the DOCSIS intellectual property pool, but we would not be able to develop products that fully comply with the DOCSIS cable modem specification. Also, even if we were to be removed from the IP pool, we would not be prevented from developing and selling products that fully comply with the DOCSIS specifications, but we would not be able to do this with the benefit of a royalty-free license, which would increase the cost of our products, assuming we were able to obtain a license agreement for the required technology. Because of these terms, we may find it difficult to enforce our intellectual property rights against certain companies, even in areas that are not directly related to DOCSIS specifications and products.

We anticipate that developers of cable modems increasingly will be subject to infringement claims as the number of products and competitors in our industry segment grows. We have received letters from two individuals claiming that our technology infringes patents held by these individuals. We have reviewed the allegations made by these individuals and, after consulting with our patent counsel, we do not believe that our technology infringes any valid claim of these individuals' patents. If the issues are submitted to a court, the court could find that our products infringe these patents. In addition, these individuals may continue to assert infringement. If we are found to have infringed these individuals' patents, we could be subject to substantial damages and/or an injunction preventing us from conducting our business. In addition, other third parties may assert infringement claims against us in the future. An infringement 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. These royalty or licensing agreements may not be available on terms acceptable to us or at all. Litigation also may be necessary to enforce our intellectual property rights.

We pursue the registration of our trademarks in the United States and have applications pending to register several of our trademarks. 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. This means that effective trademark, copyright, trade secret and patent protection might not be available in every country in which our products might be manufactured, marketed or sold.

Our Business Is Subject to Communications Industry Regulations.

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Our business and our customers are subject to varying degrees of federal, state and local regulation. The jurisdiction of the Federal Communications Commission extends to the communications industry, including our broadband access products. The FCC has promulgated regulations that, among other things, set installation and equipment standards for communications systems. Although FCC regulations and other governmental regulations have not materially restricted our operations to date, future regulations applicable to our business or our customers could be adopted by the FCC or other regulatory bodies. For example, FCC regulatory policies affecting the availability of cable services and other terms on which cable companies conduct their business may impede our penetration of certain markets. In addition, regulation of cable television rates may affect the speed at which cable operators upgrade their cable infrastructures to two-way HFC. In addition, the increasing demand for communications systems has exerted pressure on regulatory bodies worldwide to adopt new standards for such products and services. This process generally involves extensive investigation of and deliberation over competing technologies. The delays inherent in this governmental approval process have in the past, and may in the future, cause the cancellation, postponement or rescheduling of the installation of communications systems by our customers.

If other countries begin to regulate the cable modem industry more heavily or introduce standards or specifications with which our products do not comply, we will be unable to offer products in those countries until

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our products comply with those standards or specifications. In addition, we may have to incur substantial costs to comply with those standards or specifications. For instance, should the Digital Audio Visual Counsel ("DAVIC") standards for ATM-based digital video be established internationally, we will need to conform our cable modems to compete. Further, many countries do not have regulations for installation of cable modem systems or for upgrading existing cable network systems to accommodate our products. Whether we currently operate in a country without these regulations or enter into the market in a country where these regulations do not exist, new regulations could be proposed at any time. The imposition of regulations like this could place limitations on a country's cable operators' ability to upgrade to support our products. Cable operators in these countries may not be able to comply with these regulations, and compliance with these regulations may require a long, costly process. For example, we experienced delays in product shipments to a customer in Brazil due to delays in certain regulatory approvals in Brazil. Similar delays could occur in other countries in which we market or plan to market our products. In addition, our customers in certain parts of Asia, such as Japan, are required to obtain licenses prior to selling our products, and delays in obtaining required licenses could harm our ability to sell products to these customers.

Our Business Is Subject to Other Regulatory Approvals and Certifications.

In the United States, in addition to complying with FCC regulations, 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. In addition to regulatory compliance, some cable industry participants may require certification of compatibility.

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We Are Vulnerable to Earthquakes and Other Natural Disasters.

The facility housing our corporate headquarters, the majority of our research and development activities and our in-house manufacturing operations is located in an area of California 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 that of one or more of our key suppliers. Such an interruption could harm our operating results.

Our Indebtedness Could Adversely Affect our Financial Condition; We May Incur Substantially More Debt.

After issuing the Convertible Notes, we had approximately \$500.9 million of indebtedness outstanding. Our high level of indebtedness could have important consequences to you. For example, it could:

- . make it more difficult for us to satisfy our obligations with respect to our indebtedness;
- . increase our vulnerability to general adverse economic and industry conditions;
- . limit our ability to obtain additional financing;
- . require 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 such cash flow to fund our growth strategy, working capital, capital expenditures and other general corporate purposes;
- . limit our flexibility in planning for, or reacting to, changes in our business and the industry; and
- . place 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.

16.

Our Stock Price Has Been and Is Likely to Continue To Be Volatile.

The trading price of our common stock has been and is likely to be highly volatile. Our stock price could be subject to wide 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 access services industry;
- . changes in the economic performance and/or market valuations of

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Internet, online service or broadband access service industries;

- . changes in the economic performance and/or market valuations of other Internet, online service or broadband access service companies;
- . our announcement of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- . adoption of industry standards and the inclusion of 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 market for broadband access services and technology companies in particular, have experienced extreme price and volume volatility and a significant cumulative decline in recent weeks and months. This volatility and decline has affected many companies irrespective of or disproportionately to the operating performance of these companies. Our stock price has declined significantly in recent weeks and months and these broad market and industry factors may materially adversely further affect the market price of our common stock, regardless of our actual operating performance.

On April 13, 2000, a lawsuit against us and certain of our officers and directors, entitled *Birnbaum v. Terayon Comm. Systems, Inc.*, was filed in the United States District Court for the Central District of California. The plaintiff purports to be suing on behalf of a class of stockholders who purchased or committed to purchase our securities during the period from February 2, 2000 to April 11, 2000. The complaint alleges that the defendants violated the federal securities laws by issuing materially false and misleading statements and failing to disclose material information regarding our technology. Several other lawsuits similar to the *Birnbaum* suit have since been filed. The lawsuits seek an unspecified amount of damages, in addition to other forms of relief. On August 24, 2000, the lawsuits against us and other named individual defendants were consolidated in the U.S. District Court of the Northern District of California and lead plaintiffs and plaintiffs' counsel was appointed pursuant to the private securities litigation Reform Act. On September 21, 2000, plaintiffs filed a Consolidated Class Action Complaint for violation of federal securities laws. The consolidated complaint contains allegations nearly identical to the *Birnbaum* suit. Defendants filed a motion to dismiss the consolidated complaint on October 30, 2000, and plaintiffs filed an opposition. Defendants filed a reply in support of their motion to dismiss on December 22, 2000. The

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hearing on this motion is currently scheduled for January 8, 2001. We consider the lawsuits to be without merit and we intend to defend vigorously against these allegations.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the shares of common stock offered by the selling stockholders.

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DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We intend to retain any future earnings to support operations and to finance the growth and development of our business and we do not anticipate paying cash dividends for the foreseeable future.

WHERE YOU CAN GET MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's public reference rooms at Room 1024, 450 Fifth Street, N.W., Washington, D.C., as well as at the SEC's regional offices at 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and 7 World Trade Center, Suite 1300, New York, NY 10048. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference rooms. Our SEC filings are also available at the SEC's web site at "<http://www.sec.gov>." In addition, you can read and copy our SEC filings at the office of the National Association of Securities Dealers, Inc. at 1735 "K" Street, Washington, D.C. 20006.

The SEC allows us to "incorporate by reference" information that 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, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934:

- . Annual Report on Form 10-K for the year ended December 31, 1999, as amended on Form 10-K/A filed on April 28, 2000;
- . Quarterly Report on Form 10-Q for the quarter ended March 30, 2000;
- . Quarterly Report on Form 10-Q for the quarter ended June 30, 2000;
- . Quarterly Report on Form 10-Q for the quarter ended September 30, 2000, as amended on Form 10-Q/A filed on November 15, 2000;
- . Current Report on Form 8-K filed on May 3, 2000, as amended on Form 8-K/A on May 8, 2000 and as amended on Form 8-K/A on June 29, 2000;
- . Current Report on Form 8-K filed on July 18, 2000;
- . Current Report on Form 8-K filed on October 5, 2000, as amended on Form 8-K/A filed on October 18, 2000;
- . Current Report on Form 8-K filed on October 23, 2000;
- . Current Report on Form 8-K filed on January 9, 2001; and

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- . The description of the common stock contained in our Registration Statement on Form 8-A, as filed on July 20, 1998 with the SEC.

You may request a copy of these filings at no cost, by writing or telephoning us at the following address:

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Terayon Communication Systems, Inc.
2952 Bunker Hill Lane
Santa Clara, CA 95054
(408) 727-4400

This prospectus is part of a Registration Statement we filed with the SEC. You should rely only on the information incorporated by reference or provided in this prospectus and the Registration Statement. We have authorized no one to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document.

19.

SELLING STOCKHOLDERS

In our acquisition of TrueChat, Inc. which we consummated in December 2000, we issued to all of the selling stockholders shares of our common stock, and we agreed to register all of those shares for resale. We also agreed to use reasonable efforts to keep the registration statement effective until December 22, 2001. Our registration of the shares of common stock does not necessarily mean that the selling stockholders will sell all or any of the shares.

The following table sets forth certain information regarding the beneficial ownership of the common stock, as of January 12, 2001, by each of the selling stockholders.

The information provided in the table below with respect to each selling stockholder has been obtained from that selling stockholder. Except as otherwise disclosed below, none of the selling stockholders has, or within the past three years has had, any position, office or other material relationship with us. Because the selling stockholders may sell all or some portion of the shares of common stock beneficially owned by them, we cannot estimate the number of shares of common stock that will be beneficially owned by the selling stockholders after this offering. In addition, the selling stockholders may have sold, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time or from time to time since the date on which they provided the information regarding the shares of common stock beneficially owned by them, all or a portion of the shares of common stock beneficially owned by them in transactions exempt from the registration requirements of the Securities Act of 1933.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the Commission under the Securities Exchange Act of 1934. Unless otherwise noted, each person or group identified possesses sole voting and investment power with respect to shares, subject to community property laws where applicable. None of the share amounts set forth below represents more than 1% of our outstanding stock as of January 12, 2001 adjusted as required by rules promulgated by the SEC.

Selling Stockholder	Number of Shares	Shares Being Offered	Shares Escro
William Schleyer	80,746	80,746	8,1
David Fellows	80,933	80,933	8,1
YAS Corporation	80,975	80,975	8,1
P. Eric Krauss	18,910	18,910	1,9

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Frank Christofferson	74,452	74,452	49,5
Edward Miller	52,617	52,617	4,7
Laurie Priddy	20,641	20,641	2,0
Eric Kirsten	20,641	20,641	2,0
So Vang	11,795	11,795	1,1
Jeffrey Turner	36,012	36,012	20,6
Gregory Leibold	19,245	19,245	10,3
Carl Christofferson	13,518	13,518	6,1
Ronald Cooper	2,730	2,730	2
CableLabs**	5,897	5,897	
Arlis Dodson	5,438	5,438	
Jeffrey George	4,901	4,901	
Brenda Roth	2,562	2,562	
Elizabeth Weeks	1,894	1,894	
TWB Investment Partnership	580	580	

* 49,428 shares of our common stock are held in the name of Embassy & Co. pursuant to an Indemnification Escrow Agreement with William Schleyer, David Fellows, YAS Corporation, Frank Christofferson, Edward Miller, P. Eric Krauss, Laurie Priddy, Eric Kirsten, So Vang, Jeffrey Turner, Gregory Leibold, Carl Christofferson and Ronald Cooper. 74,206 shares of our common stock are held in the name of Embassy & Co. pursuant to a Retention Escrow Agreement with Frank Christofferson, Jeffrey Turner, Gregory Leibold and Carl Christofferson.

20.

** CableLabs has a material relationship with us. Our relationship with CableLabs is described in the Risk Factor titled "There Are Many Risks Associated with Our Participation in the Establishment of Advanced Physical Layer Specifications to Be Added to DOCSIS" on page 5.

21.

PLAN OF DISTRIBUTION

The shares of common stock may be sold from time to time by the selling stockholders in one or more transactions at fixed prices, at market prices at the time of sale, at varying prices determined at the time of sale or at negotiated prices. As used in this prospectus, "selling stockholders" includes donees, pledgees, transferees and other successors in interest selling shares received from a selling stockholder after the date of this prospectus as a gift, pledge, partnership distribution or other non-sale transfer. Upon receiving notice from a selling stockholder that a donee, pledgee, transferee or other successor in interest intends to sell more than 500 shares, we will file a supplement to this prospectus. The selling stockholders may offer their shares of common stock in one or more of the following transactions:

- . on any national securities exchange or quotation service on which the common stock may be listed or quoted at the time of sale, including the Nasdaq National Market;
- . in the over-the-counter market;
- . in private transactions;
- . through options;
- . by pledge to secure debts and other obligations; or

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. a combination of any of the above transactions.

If required, we will distribute a supplement to this prospectus to describe material changes in the terms of the offering.

The shares of common stock described in this prospectus may be sold from time to time directly by the selling stockholders. Alternatively, the selling stockholders may from time to time offer shares of common stock to or through underwriters, broker/dealers or agents. The selling stockholders and any underwriters, broker/dealers or agents that participate in the distribution of the shares of common stock may be deemed to be "underwriters" within the meaning of the Securities Act of 1933. Any profits on the resale of shares of common stock and any compensation received by any underwriter, broker/dealer or agent may be deemed to be underwriting discounts and commissions under the Securities Act of 1933. We have agreed to indemnify each selling stockholder against certain liabilities, including liabilities arising under the Securities Act of 1933. The selling stockholders may agree to indemnify any agent, dealer or broker-dealer that participates in the sale of shares of common stock described in this prospectus against certain liabilities, including liabilities arising under the Securities Act of 1933.

Any shares covered by this prospectus that qualify for sale pursuant to Rule 144 under the Securities Act of 1933 may be sold under Rule 144 rather than pursuant to this prospectus. The selling stockholders may not sell all of the shares they hold. The selling stockholders may transfer, devise or gift such shares by other means not described in this prospectus.

To comply with the securities laws of certain jurisdictions, the common stock must be offered or sold only through registered or licensed brokers or dealers. In addition, in certain jurisdictions, the shares of common stock may not be offered or sold unless they have been registered or qualified for sale or an exemption is available and complied with.

Under the Securities Exchange Act of 1934, any person engaged in a distribution of the common stock may not simultaneously engage in market-making activities with respect to the common stock for five business days prior to the start of the distribution. In addition, each selling stockholder and any other person participating in a distribution will be subject to the Securities Exchange Act of 1934, which may limit the timing of purchases and sales of common stock by the selling stockholders or any such other person. These factors may affect the marketability of the common stock and the ability of brokers or dealers to engage in market-making activities.

22.

All expenses of this registration, estimated at approximately \$501.08, will be paid by us. These expenses include the SEC's filing fees and fees under state securities or "blue sky" laws.

23.

LEGAL MATTERS

For the purpose of this offering, Cooley Godward LLP, San Francisco, California, is giving an opinion as to the validity of the common stock offered by this prospectus.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated

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financial statements and schedule included in our Annual Report on Form 10-K, as amended on Form 10-K/A, for the year ended December 31, 1999, as set forth in their reports, which are incorporated by reference in the prospectus and elsewhere in the registration statement. Our financial statements and schedule are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

The financial statements of Mainsail Networks, Inc., appearing in Terayon Communication Systems, Inc.'s Current Report on Form 8-K/A filed October 18, 2000, have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Mainsail Networks, Inc.'s financial statements included in Terayon Communication Systems, Inc.'s Current Report on Form 8-K/A filed October 18, 2000 are incorporated by reference in reliance on Ernst & Young LLP's report, given on the authority of such firm as experts in accounting and auditing.

The audited historical statements of assets acquired and liabilities assumed and of net sales and direct costs and operating expenses of the Access Network Electronics business of Tyco Electronics Corporation as of and for the year ended June 30, 1999, incorporated in this Registration Statement by reference to the Current Report on Form 8-K/A of Terayon Communication Systems, Inc. filed June 29, 2000, have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the limited presentation of such statements, as discussed in Note 2 to the statements) of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

Kost, Forer and Gabbay, a member of Ernst and Young International, independent auditors, have audited the financial statements of Telegate Ltd. included in Terayon Communication Systems, Inc.'s Current Report on Form 8-K/A filed June 29, 2000, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the Registration Statement. Telegate Ltd.'s financial statements included in Terayon Communication Systems, Inc.'s Current Report on Form 8-K/A filed June 29, 2000 are incorporated by reference in reliance on Kost, Forer and Gabbay's report, given on their authority as experts in accounting and auditing.

Kost, Forer and Gabbay, a member of Ernst and Young International, independent auditors, have audited the consolidated financial statements of ComBox Ltd. included in Terayon Communication Systems, Inc.'s Current Report on Form 8-K/A filed June 29, 2000, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the Registration Statement. ComBox Ltd.'s consolidated financial statements included in Terayon Communication Systems, Inc.'s Current Report on Form 8-K/A filed June 29, 2000 are incorporated by reference in reliance on Kost, Forer and Gabbay's report, given on their authority as experts in accounting and auditing.

We have not authorized any dealer, sales person or other person to give any information or to make any representations other than those contained in this prospectus or any prospectus supplement. You must not rely on any unauthorized information. This prospectus is not an offer of these securities in any state where an offer is not permitted. The information in this prospectus is current as of January 25, 2001. You should not assume that this prospectus is accurate as of any other date.

24.

We have not authorized any dealer, sales person or other person to give any information or to make any representations other than those contained in this prospectus or any prospectus supplement. You must not rely on any unauthorized information. This prospectus is not an offer of these securities in any state

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where an offer is not permitted. The information in this prospectus is current as of January 25, 2001. You should not assume that this prospectus is accurate as of any other date.

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534,487 SHARES

COMMON STOCK

PROSPECTUS

TERAYON COMMUNICATION
SYSTEMS, INC.

January 25, 2001