

TERAYON COMMUNICATION SYSTEMS

Form S-3

October 07, 2003

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As filed with the Securities and Exchange Commission on October 7, 2003, Registration No. 333-___.

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM S-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933
TERAYON COMMUNICATION SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware **77-0328533**
(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

4988 Great America Parkway
Santa Clara, California 95054
(408) 235-5500

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Edward Lopez, Esq.
Senior Vice President, General Counsel and Human Resources
4988 Great America Parkway
Santa Clara, California 95054
(408) 235-5500

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:
Gavin B. Grover, Esq.
Jaelyn Liu, Esq.
Morrison & Foerster LLP
425 Market Street
San Francisco, California 94105
(415) 268-7000

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, check the following box:

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering:

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box:

CALCULATION OF REGISTRATION FEE (1)

| Title of Each Class of Securities to be Registered (2) | Amount to be Registered | Proposed Offering | Maximum Aggregate Offering Price | Amount of |
|---|--|------------------------------|---|------------------|
|---|--|------------------------------|---|------------------|

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| | | Price Per Unit | | Registration Fee(6) |
|---|-----|-------------------|-------------------|------------------------|
| Primary Offering | | | | |
| Common Stock, par value \$0.001 per share, Preferred Stock, par value \$0.001 per share, Debt Securities and Warrants | (3) | (4) | \$ 125,000,000(5) | \$ 10,113 |

- (1) Estimated in accordance with Rule 457(o) solely for the purpose of calculating the registration fee.
- (2) Any securities registered hereunder may be sold separately or as units with other securities registered hereunder.
- (3) Includes such indeterminate number of shares of common stock, preferred stock, debt securities and warrants as may be issued at indeterminable prices, but with an aggregate initial offering price not to exceed \$125,000,000, plus such indeterminate number of shares of common stock as may be issued upon exercise of warrants or in exchange for, or upon conversion of, debt securities registered hereunder.
- (4) Omitted pursuant to General Instruction II.D of Form S-3.
- (5) No separate consideration will be received for shares of common stock that are issued upon conversion of debt securities.
- (6) Calculated pursuant to Rule 457(o) under the Securities Act.

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The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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SUBJECT TO COMPLETION AND AMENDMENT
PRELIMINARY PROSPECTUS, DATED OCTOBER 7, 2003

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

[LOGO OF TERAYON COMMUNICATION SYSTEMS APPEARS HERE]

\$125,000,000

Offered by

TERAYON COMMUNICATION SYSTEMS, INC.

Common Stock, Preferred Stock

Debt Securities and Warrants

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

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

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

We may offer these securities directly to investors, through underwriters, broker-dealers or agents. See **Plan of Distribution** beginning on page 21. Each prospectus supplement will provide the terms of the plan of distribution relating to each such securities.

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

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

This prospectus is dated , 2003.

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SUMMARY

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

This prospectus provides you with a general description of the securities that we may offer. Each time we sell any securities described in this prospectus, we will provide you with a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. The registration statement we filed with the Securities and Exchange Commission includes exhibits that provide greater detail about matters discussed in this prospectus. You should carefully read this prospectus, the related exhibits filed with the Securities and Exchange Commission and the applicable prospectus supplement, together with the additional information described under the caption **Where You Can Find More Information** on page 23 of this prospectus.

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

TERAYON COMMUNICATION SYSTEMS, INC.

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

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RISK FACTORS

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

FORWARD-LOOKING STATEMENTS

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

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

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

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

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events unless in the course of offering the securities under this prospectus we provide you with a prospectus supplement.

RATIOS OF EARNINGS TO FIXED CHARGES

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

(Unaudited)

| | 1998 | Twelve Months Ended December 31, | | | 2002 | Six Months Ended 6/30/2003 |
|--|-------------|----------------------------------|--------------|--------------|-------------|----------------------------|
| | | 1999 | 2000 | 2001 | | |
| Loss before income taxes | \$ (23,228) | \$ (64,080) | \$ (180,767) | \$ (577,761) | \$ (43,975) | \$ (36,999) |
| Add: Fixed charges | 450 | 170 | 12,566 | 27,109 | 8,836 | 1,960 |
| Adjusted loss | \$ (22,778) | \$ (63,910) | \$ (168,201) | \$ (550,652) | \$ (35,139) | \$ (35,039) |
| Ratio of earnings to fixed charges (1) | N/A | N/A | N/A | N/A | N/A | N/A |

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

For the purpose of calculating the ratio of earnings to fixed charges, earnings are defined as consolidated loss from continuing operations before income taxes plus fixed charges. Fixed charges are the sum of interest of all indebtedness, estimated interest within rental expense and amortization of debt issuance costs.

USE OF PROCEEDS

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

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For the purpose of calculating the ratios of earnings to fixed charges, earnings are defined as consolidated loss from continuing operations before income taxes plus fixed charges. Fixed charges are the sum of interest of all indebtedness, estimated interest within rental expense and amortization of debt issuance costs.

There was no preferred stock outstanding for any of the periods shown above. Accordingly, the ratio of earnings to fixed charges and preferred stock dividends are identical to the ratio of earnings to fixed charges.

DESCRIPTION OF EQUITY SECURITIES WE MAY OFFER

The following description of our common stock and preferred stock, together with the additional information included in any applicable prospectus supplement, summarizes the material terms and provisions of our capital stock but is not complete. For the complete terms of our common stock and preferred stock, please refer to our amended and restated certificate of incorporation and bylaws that are incorporated by reference into the registration statement which includes this prospectus. With respect to the Series A Junior Participation Preferred Stock, please refer to the certificate of designation filed relating to that series of preferred stock which is incorporated by reference in the registration statement which includes this prospectus. With respect to the other series of preferred stock, please refer to the certificate of designation which will be filed with the Securities and Exchange Commission for each series of preferred stock we may designate, if any.

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

Common Stock

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

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

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

Preferred Stock

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

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Our board of directors has designated 2,000,000 shares of preferred stock as Series A Junior Participating Preferred Stock, the terms and conditions of which are described in greater detail below.

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

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

the number of shares in the series of preferred stock;

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

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

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

any conversion provisions applicable to that series of preferred stock;

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

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

the listing of the preferred stock on any securities exchange;

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

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

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

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

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

Anti-Takeover Provisions

Provisions of Delaware law and our amended and restated certificate of incorporation and bylaws could make our acquisition by means of a tender offer, a proxy contest or otherwise, and the removal of incumbent officers and directors more difficult. These provisions are expected to discourage types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweighs the disadvantages of discouraging proposals, including proposals that are priced above the then current market value of our common stock, because, among other things, negotiation of these proposals could result in an improvement of their terms.

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Delaware Law

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

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

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

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

Section 203 defines "business combination" to include:

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

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

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

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

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

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

Certificate of Incorporation and Bylaws

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

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

provide for a classified board of directors;

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

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

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

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

DESCRIPTION OF SERIES A JUNIOR PARTICIPATING PREFERRED STOCK

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

DESCRIPTION OF RIGHTS AGREEMENT

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

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

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Exercisability and Expiration

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

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

Trigger Event

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

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

Exchange

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

Redemption

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

Amendment of the Rights Plan

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

Anti-Takeover Effects

The establishment of the rights plan and the potential issuance of Rights have certain anti-takeover effects. The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board of directors. The Rights should not interfere with any merger or other business combination approved by

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our board of directors since the Rights may be amended to permit such acquisition or redeemed by us at \$0.001 per Right prior to the earliest of (i) the time that a person or group has acquired beneficial ownership of 15% or more of our common stock, or (ii) February 6, 2011.

**DESCRIPTION OF OUTSTANDING REGISTRATION RIGHTS AGREEMENT WITH
HOLDERS OF COMMON STOCK**

Pursuant to an Amended and Restated Information and Registration Rights Agreement, dated as of April 6, 1998, that we entered into with the holders (or their permitted transferees) of approximately 22,778,194 shares of our common stock, these holders are entitled to specified rights with respect to the registration of their shares of common stock for sale in the public market. If we propose to register our common stock under the Securities Act of 1933, subject to exceptions, the holders are entitled to notice of the registration and are entitled, at our expense, to include their shares of common stock in such a registration; provided that the managing underwriters, if any, in such an offering have the right to limit the number of shares of common stock held by the holders to be included in the registration or exclude such shares entirely. In addition, some of these holders may require us, at our expense, on no more than seven occasions, to file a registration statement under the Securities Act that is not a registration statement on Form S-3 with respect to their shares of common stock; provided the aggregate offering price exceeds \$5.0 million and other specified conditions are met. Further, some of these holders may require us, at our expense, on no more than four occasions, to register all or portion of their shares on a registration statement on Form S-3; provided the aggregate offering price exceeds \$1.0 million and other specified conditions are met. These registration rights expire on the earlier to occur of (A) August 17, 2005, or (B) with respect to any holder, at such time that the holder owns less than one percent of our outstanding common stock and is free to sell all of such holder's shares to the public pursuant to Rule 144 under the Securities Act of 1933.

DESCRIPTION OF DEBT SECURITIES WE MAY OFFER

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

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

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

General

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

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

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

any limit on the amount that may be issued;

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

the date or dates, if any, after which the debt securities may be converted or exchanged into or for shares of our common stock or another company's securities or property or settled for the cash value of securities issued by us or a third party and the terms for any such conversion or exchange or settlement;

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

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

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

the maturity date(s);

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

the place(s) where payments shall be payable;

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

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

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

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

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

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

The debt securities may be issued as original issue discount securities. An original issue discount security is a debt security, including any zero-coupon debt security, which: (i) is issued at a price lower than the amount

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payable upon its stated maturity; and (ii) provides that upon redemption or acceleration of the maturity, an amount less than the amount payable upon the stated maturity, shall become due and payable.

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

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

Payment, Transfer and Redemption

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

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

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

Global Notes, Delivery and Form

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

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So long as a nominee of the depository is the registered owner of a global note, such a nominee for all purposes will be considered the sole owner or holder of the global note under the indenture. Except as provided below, you will not be entitled to have debt securities registered in your name, will not receive or be entitled to receive physical delivery of debt securities in definitive form, and will not be considered the owners or holders thereof under the indenture.

We will make payment of principal of, and interest on, debt securities represented by a global note to the depository or its nominee, as the case may be, as the registered owner and holder of the global note representing those debt securities.

Modification of the Indenture

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

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

extending the maturity date or dates,

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

reducing the interest rate,

reducing the amount of principal we have to repay,

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

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

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

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

waive any past payment default.

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

Consolidation, Merger and Sale

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

Events of Default

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

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

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

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

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

certain events in bankruptcy, insolvency or reorganization; or

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

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

The indenture provides that if an event of default occurs and is continuing with respect to any series of debt securities, either the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of such series may declare the principal amount (or in the case of discounted debt securities, such portion

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of the principal amount as may be specified in the terms of that series) of all the debt securities of that series to be due and payable immediately. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of money has been obtained by the trustee, the holders of a majority in aggregate outstanding principal amount of the debt securities of that series may, under certain circumstances, annul and rescind such acceleration. The holders of a majority in principal amount of such debt securities then outstanding may also waive on behalf of all holders of that series, past defaults with respect to a particular series of debt securities except, unless previously cured, a default in payment of principal, premium, if any, or interest, if any, on any of the debt securities of such series, or the payment of any sinking fund installment or analogous obligation on the debt securities of such series.

Conversion and Exchange Rights

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

Defeasance and Discharge

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

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

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

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

- to register the transfer and exchange of debt securities;
- to replace mutilated, destroyed, lost or stolen debt securities;
- to maintain payment agencies; and

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to hold money for payment in trust.

Covenant Defeasance

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

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

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

Subordination

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

Governing Law

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

Concerning the Trustee

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

DESCRIPTION OF OUTSTANDING DEBT SECURITIES

5% Convertible Subordinated Notes

Overview

In July 2000, we issued 5% Convertible Subordinate Notes, or the Notes, in an aggregate amount of \$500 million due in August 2007. The Notes are our general unsecured obligation and are subordinated in right of payment to all existing and future senior indebtedness and to all of the liabilities of our subsidiaries. The Notes are convertible into shares of our common stock at a conversion price of \$84.01 per share at any time on or after October 24, 2000 through maturity, unless previously redeemed or repurchased by us. We may redeem some or all of the Notes at any time on or after October 24, 2000 and before August 7, 2003 at a redemption price of \$1,000 per \$1,000 principal amount of the Notes, plus accrued and unpaid interest, if any, if the closing price of our common stock exceeds 150% of the conversion price, or \$126.01, for at least 20 trading days within a period of 30 consecutive trading days ending on the trading day prior to the date of mailing of the redemption notice. We will also make an additional payment of \$193.55 per \$1,000 principal amount of the Notes, less the amount of any interest actually paid on the Notes before the date of redemption. We may redeem the Notes at any time on or after August 7, 2003 at specified prices plus accrued and unpaid interest. Interest on the Notes accrues at 5% per annum and is payable semi-annually.

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

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Right to Require Purchase of Notes upon a Change in Control

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

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Consolidation, Merger and Sale of Assets

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

Events of Default

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

Registration Rights

We entered into a registration rights agreement with the initial purchasers of the Notes for the benefit of the holders of the Notes and the common stock issuable on conversion of the Notes. Pursuant to this agreement, we filed a shelf registration statement with the Securities and Exchange Commission covering resales of the Notes and the common stock issuable on conversion of the Notes. This shelf registration statement is no longer effective.

DESCRIPTION OF THE WARRANTS WE MAY OFFER

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

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

the title of the warrants;

the aggregate number of the warrants;

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

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

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

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

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

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

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

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

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

a discussion of any federal income tax considerations; and

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

DESCRIPTION OF OUTSTANDING WARRANTS

In conjunction with a preferred stock financing, we issued to Shaw Communications Inc. in April 1998 a warrant to purchase an indeterminate number of shares of our common stock for an aggregate exercise price of \$0.50. The Shaw warrant is exercisable from time to time until the date upon which Shaw ceases to own any eligible shares. Eligible shares are shares of (i) common stock received by Shaw upon conversion of its preferred stock, (ii) common stock issued as a result of the exercise of another warrant issued to Shaw by us, and (iii) common stock issued upon exercise of the Shaw warrant. Except under limited circumstances, when we issue securities at less than a specified price as established in the Shaw warrant, we increase the number of shares of our common stock available for Shaw to purchase under the Shaw warrant. The number of shares of common stock purchasable by Shaw upon the exercise of the Shaw warrant is subject to adjustment in the event of a stock dividend, stock split, reclassification or similar event. Until the Shaw warrant is exercised, it does not confer upon Shaw any rights as a stockholder, including, without limitation, the right to vote or receive dividends. We issued equity securities that, as of December 31, 2002 and 2001, required us to issue to Shaw the right to purchase an additional 17,293 and 35,982 shares of our common stock, respectively, pursuant to the Shaw warrant. During the year ended December 31, 2000, no equity securities were issued that resulted in the increase in the number of shares issuable to Shaw pursuant to the Shaw warrant. As of September 30, 2003, the Shaw warrant was exercisable by Shaw for an aggregate of approximately 125,593 shares of our common stock.

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

PLAN OF DISTRIBUTION

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

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

The prospectus supplement with respect to the securities being offered will set forth the terms of the offering, including the number and amount of the securities to be sold, information relating to the underwriters, broker-dealers or agents, if any, the purchase price, the public offering price, if applicable, the net proceeds to us,

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any underwriting discounts or other items constituting compensation to such underwriters, any discounts or concessions allowed or reallocated or paid to broker-dealers and any securities exchange on which such securities may be listed.

Distribution Through Underwriters

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

Distribution Through Broker-Dealers and Agents

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

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

commercial and savings banks;

insurance companies;

pension funds;

investment companies; and

educational and charitable institutions.

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

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

Direct Sales

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

General Information

Underwriter(s), broker-dealer(s) and agent(s) that participate in the distribution of our securities may be deemed as underwriters as defined in the Securities Act of 1933 and any discounts or commissions received by them

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from us and any profit on the resale of these securities by them may be treated as underwriting discounts and commissions under the Securities Act of 1933.

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

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

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

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

LEGAL MATTERS

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

EXPERTS

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

WHERE YOU CAN FIND MORE INFORMATION

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

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission. This prospectus omits some information contained in the registration statement in accordance with the rules and

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

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

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

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

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

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

The description of our common stock is set forth in our registration statement on Form 8-A filed with the Securities and Exchange Commission on July 20, 1998, and any subsequent amendments or reports filed for the purpose of updating this description.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

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

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

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**DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR
SECURITIES ACT LIABILITIES**

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

We have entered into agreements with our directors and executive officers that require us to indemnify such persons against any and all expenses (including attorneys' fees), witness fees, damages, judgments, fines and amounts paid in settlement and any other amounts that such person becomes legally obligated to pay in connection with any proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director, officers, employee or other agent of our company or any of our affiliated enterprises; provided such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to our best interests. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

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

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

Table of Contents**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution**

The following is an estimate, subject to future contingencies, of the expenses to be incurred by the Registrant in connection with the issuance and distribution of the securities being registered:

| | |
|-------------------------------|------------|
| Registration Fee | \$ 10,113 |
| Legal Fees and Expenses* | \$ 75,000 |
| Accounting Fees and Expenses* | \$ 20,000 |
| Printing and Engraving Fees* | \$ 20,000 |
| Miscellaneous* | \$ 15,000 |
| Total | \$ 140,113 |

* Estimated pursuant to instruction to Item 511 of Regulation S-K.

Item 15. Indemnification of Directors and Officers

Section 145(a) of the Delaware General Corporation Law (the "DGCL") provides in relevant part that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), by reason of the fact that he is or was a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. With respect to derivative actions, Section 145(b) of the DGCL provides in relevant part that [a] corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor. . . . [by reason of his service in one of the capacities specified in the preceding sentence] against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interest of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Article X of the Registrant's amended and restated bylaws provide that the Registrant shall indemnify its directors and executive officers to the fullest extent not prohibited by the California General Corporation Law; provided, however, the Registrant shall not be required to indemnify any director or executive officer in connection with any proceeding initiated by such person or any proceeding by such person against the Registrant or its directors, officers, employees or other agents unless (i) such indemnification is expressly required by law, (ii) the proceeding was authorized by the board of directors of the Registrant, or (iii) such indemnification is provided by the Registrant, in its sole discretion, pursuant to the powers vested in the Registrant under the California General Corporation Law. The Registrant has the power to indemnify its other officers, employees and other agents as set forth in the California General Corporation Law. Pursuant to the amended and restated bylaws, promptly after receipt of a request for indemnification, a reasonable, good faith determination as to whether indemnification of the director or executive officer is proper under the circumstances because such director or executive officer has met the applicable standard of care shall be made by (A) a majority vote of a quorum consisting of directors who are not parties to such proceeding, (B) if such a quorum is not obtainable, by independent legal counsel in a written opinion, or (C) approval or ratification by the affirmative vote of a majority of the share of the Registrant represented and

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voting at a duly held meeting at which a quorum is present or by written consent of a majority of the outstanding shares entitled to vote, where in each case the shares owned by the person to be indemnified shall not be considered entitled to vote thereon. The Registrant has the power to advance, prior to final disposition of any proceeding, all expenses incurred by any director or executive officer in connection with such proceeding upon receipt of an understanding that such person will repay said amounts if it shall be determined ultimately that such person is not entitled to indemnification.

The Registrant has entered into agreements with its directors and executive officers that require it to indemnify such persons against any and all expenses (including attorneys' fees), witness fees, damages, judgments, fines and amounts paid in settlement and any other amounts that such person becomes legally obligated to pay in connection with any proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director, officers, employee or other agent of the Registrant or any of its affiliated enterprises; provided such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Registrant. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

The Registrant also has obtained a policy of director's and officer's liability insurance that insures its directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

See also the undertakings set out in response to Item 17 herein.

Item 16. Exhibits

| Exhibit No. | Exhibit |
|----------------|--|
| 1.1* | Form of Equity Underwriting Agreement. |
| 1.2* | Form of Debt Underwriting Agreement. |
| 3.1(1) | Amended and Restated Certificate of Incorporation of Registrant. |
| 3.2(1) | Amended and Restated Bylaws of Registrant. |
| 3.3(2) | Rights Agreement between Terayon Communication Systems, Inc. and Fleet National Bank dated February 6, 2001. |
| 3.4(3) | Certificate of Amendment to Amended and Restated Certificate of Incorporation of Terayon Communication Systems, Inc. |
| 3.5(2) | Certificate of Designation of Series A Junior Participating Preferred Stock. |
| 4.1(1) | Amended and Restated Information and Registration Rights Agreement dated April 6, 1998. |
| 4.2 | Form of Indenture. |
| 4.3* | Form of Note. |
| 4.4* | Form of Certificate of Designation for the Preferred Stock (together with Preferred Stock Certificate) |
| 4.5* | Form of Warrant (together with Form of Warrant Certificate). |
| 4.6(4) | Form of Security for Terayon Communication Systems, Inc.'s 5% Convertible Subordinated Notes due August 1, 2007. |
| 4.7(4) | Registration Rights Agreement by and among Terayon Communication Systems, Inc., Deutsche Bank Securities, Inc. and Lehman Brothers, Inc. |
| 4.8(4) | Indenture between Terayon Communication Systems, Inc., State Street Bank and Trust Company of California, N.A. dated July 26, 2000. |
| 5.1 | Opinion of Morrison & Foerster LLP, together with consent. |

12.1 Computations of ratio of earnings to fixed charges.

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| Exhibit No. | Exhibit |
|----------------|--|
| 23.1* | Consent of Morrison & Foerster LLP (contained in the opinion of counsel filed as Exhibit 5.1 to this Registration Statement). |
| 23.2 | Consent of Ernst & Young LLP, independent auditors. |
| 24.1 | Powers of Attorney (see page II-5 of the Registration Statement). |
| 25.1** | Form T-1 Statement of Eligibility of Trustee for the Debt Securities. |
| * | To be filed by amendment or in connection with a report to be filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, if applicable, and incorporated herein by reference. |
| ** | To be filed by amendment or pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939, if applicable. |
| (1) | Incorporated by reference to exhibits to the Registrant's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on June 16, 1998 (File No. 333-56911). |
| (2) | Incorporated by reference to the Registrant's Report on Form 8-K filed with the Securities and Exchange Commission on February 9, 2001. |
| (3) | Incorporated by reference to our Report on Form 10-K filed on April 2, 2001. |
| (4) | Incorporated by reference to the Registrant's Registration Statement on Form S-3 filed with the Securities and Exchange Commission on October 24, 2000 (File No. 333-48536). |

Item 17. Undertakings

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective Registration Statement;

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned Registrant hereby undertakes that for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(e) The undersigned Registrant hereby undertakes that for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(f) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

Table of Contents**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara and the State of California, on this 7th day of October, 2003

TERAYON COMMUNICATION SYSTEMS, INC.

By: /s/ Zaki Rakib

Dr. Zaki Rakib
Chief Executive Officer

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints, severally and not jointly Dr. Zaki Rakib, Arthur T. Taylor and Edward Lopez with full power to act alone, his true and lawful attorneys-in-fact, with the power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact full power and authority to do and perform each and every act and thing requisite and necessary to be done as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

| Signature | Title | Date |
|--|--|-----------------|
| /s/ Zaki Rakib _____ Dr. Zaki Rakib | Chief Executive Officer (Principal Executive Officer) and Director | October 7, 2003 |
| /s/ Shlomo Rakib _____ Shlomo Rakib | President, Chief Technical Officer and Chairman of the Board of Director | October 7, 2003 |
| /s/ Arthur T. Taylor _____ Arthur T. Taylor | Chief Financial Officer (Principal Financial and Accounting Officer) | October 7, 2003 |
| /s/ Alek Krstajic _____ Alek Krstajic | Director | October 7, 2003 |
| /s/ Mark Slaven _____ Mark Slaven | Director | October 7, 2003 |
| /s/ Lewis Solomon _____ Lewis Solomon | Director | October 7, 2003 |

/s/ David Woodrow

Director

October 7, 2003

David Woodrow

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