

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

SONUS NETWORKS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of incorporation or organization)

04-3387074
(I.R.S. Employer Identification No.)

5 CARLISLE ROAD
WESTFORD, MASSACHUSETTS 01886
(978) 692-8999
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

HASSAN M. AHMED
PRESIDENT AND CHIEF EXECUTIVE OFFICER
SONUS NETWORKS, INC.
5 CARLISLE ROAD
WESTFORD, MASSACHUSETTS 01886
(978) 692-8999
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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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, please 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. /X/

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please 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. /X/

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (1)(2)	AMOUNT OF REGISTRATION FEE
Debt Securities (3).....	(5)	(5)
Warrants (3).....	(5)	(5)
Common Stock, \$.001 par value per share (3)(4).....	(5)	(5)
Total (6).....	\$1,000,000,000	\$250,000

- (1) There are being registered hereunder such indeterminate number of shares of common stock, such indeterminate number of warrants to purchase shares of common stock or debt securities and such indeterminate principal amount of debt securities or issue price of debt securities issued at original issue discount, as shall have an aggregate initial offering price not to exceed \$1,000,000,000. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o).
- (3) In addition to the securities issued directly under this registration statement, we are registering an indeterminate number of shares of common stock as may be issued upon exercise, conversion, redemption, repurchase or exchange of the securities issued directly under this registration statement. No separate consideration will be received for any shares of common stock so issued upon exercise, conversion, redemption, repurchase or exchange.
- (4) The aggregate amount of common stock registered hereunder is limited to that which is permissible under Rule 415(a)(4)(ii) under the Securities Act.
- (5) Not required to be included in accordance with General Instruction II.D. of Form S-3 under the Securities Act.
- (6) In no event will the aggregate initial offering price of all securities issued from time to time pursuant to this registration statement exceed \$1,000,000,000 or the equivalent thereof in one or more foreign currencies, foreign currency units, or composite currencies. The securities registered hereunder may be sold separately or as units with other securities registered hereunder.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON THE 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.

THE INFORMATION IN THIS PRELIMINARY PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THESE SECURITIES MAY NOT BE SOLD UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PRELIMINARY PROSPECTUS IS NOT AN OFFER TO SELL NOR DOES IT SEEK AN OFFER TO BUY THESE SECURITIES IN ANY JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION. DATED MAY 31, 2001.

PROSPECTUS

\$1,000,000,000

[LOGO]

Debt Securities
Warrants
Common Stock

We will provide the specific terms for each of these securities and their offering prices in supplements to this prospectus. In the case of debt securities, these terms will include, as applicable, the specific designation, aggregate principal amount, maturity, rate or formula of interest, premium and terms for redemption. In the case of warrants to purchase debt securities or shares of common stock, the terms will include term, conversion and exercise prices and other terms. In the case of common stock, these terms will include the aggregate number of shares offered.

We may sell any combination of these securities in one or more offerings up to a total dollar amount of \$1,000,000,000. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement.

Our common stock is listed on the Nasdaq National Market under the symbol "SONS". The closing price of our common stock on the Nasdaq National Market was \$26.00 per share on May 30, 2001. None of the other securities are currently publicly traded.

You should read carefully this prospectus, the documents incorporated by reference in the prospectus and any prospectus supplement before you invest. We strongly recommend that you read carefully the risks we describe in the accompanying prospectus supplement, as well as the risk factors in our most current reports to the SEC, for a fuller understanding of the risks and uncertainties that we face.

SEE "RISK FACTORS" ON PAGE 5 TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING THESE SECURITIES.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER REGULATORY BODY HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This prospectus may not be used to consummate sales of securities unless it is accompanied by a prospectus supplement.

GOLDMAN, SACHS & CO.

Prospectus dated _____, 2001.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the SEC using a "shelf" registration process. Under this shelf process we may offer, from time to time, in one or more offerings:

- our debt securities;
- warrants to purchase our common stock or debt securities; or
- shares of our common stock.

The total aggregate offering price of these securities will not exceed \$1,000,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of the securities we offer. The prospectus also may add, update or change information contained in this prospectus.

We may sell the securities to or through underwriters, dealers or agents or directly to purchasers. We and our agents reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. A prospectus supplement, which we will provide to you each time we offer securities, will provide the names of any underwriters, dealers or agents involved in the sale of the securities, and any applicable fee, commission or discount arrangements with them.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC under the Securities Act a registration statement on Form S-3. This prospectus does not contain all of the information contained in the registration statement since portions have been omitted under the rules of the SEC. We also file annual, quarterly and special reports, proxy statements and other information with the SEC under the Exchange Act. The Exchange Act file number for our SEC filings is 000-30229. You may read and copy the registration statement and any other document we file at the following SEC public reference rooms:

Judiciary Plaza
450 Fifth Street, N.W.
Rm. 1024
Washington, D.C. 20549

500 West Madison Street
14th Floor
Chicago, Illinois 60661

7 World Trade Center
Suite 1300
New York, New York 10048

You may obtain information on the operation of the public reference room in Washington, D.C. by calling the SEC at 1-800-SEC-0330. We file information electronically with the SEC. Our SEC filings are available from the SEC's Internet site at [HTTP://WWW.SEC.GOV](http://www.sec.gov), which contains reports, proxy and information statements and other information regarding issuers that file electronically. You may read and copy our SEC filings and other information at the offices of Nasdaq Operations, 1735 K Street, N.W., Washington, D.C. 20006.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the documents we file with it, which means that we can disclose important information to you by referring you to those documents instead of reproducing that information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information in this prospectus. We incorporate by reference the following documents:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2000 filed on March 28, 2001;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2001 filed on May 15, 2001; and

- The description of common stock contained in our registration statement on Form 8-A filed on April 5, 2000, as amended.

In addition to the documents listed above, we also incorporate by reference any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, including any filings after the date of initial filing and prior to the effectiveness of the registration statement of which this prospectus is a part, until we have sold all of the offered securities to which this prospectus relates or the offering is otherwise terminated.

We will provide a copy of the documents we incorporate by reference, at no cost, to any person who receives this prospectus. To request a copy of any or all of these documents, you should write or telephone us at: 5 Carlisle Road, Westford, Massachusetts 01886, Attention: Investor Relations; telephone (978) 692-8999.

SUMMARY

This summary highlights the more detailed information contained elsewhere in this prospectus. It may not include all the information that is important to you. You should read the entire prospectus, the prospectus supplement delivered with the prospectus, and the documents incorporated by reference before making an investment decision.

ABOUT SONUS NETWORKS

We are a leading provider of voice infrastructure products for the new public network. Our products are a new generation of carrier-class switching equipment and software that enable voice services to be delivered over packet-based networks. Designed for deployment at the core of a service provider's network, our products significantly reduce the cost to build and operate voice services compared to traditional alternatives. Moreover, our products offer a powerful and open platform for service providers to increase their revenues through the creation and delivery of new and innovative voice and data services. Our customers include world-leading service providers. Our objective is to capitalize on our early technology and market lead and build the premier franchise in voice infrastructure solutions for the new public network.

We were incorporated as a Delaware corporation in August 1997. Our principal executive offices are located at 5 Carlisle Road, Westford, Massachusetts 01886, and our telephone number is (978) 692-8999.

SUMMARY OF THE SECURITIES WE ARE OFFERING

We may offer any of the following securities from time to time:

- debt securities;
- warrants to purchase debt securities or common stock; or
- common stock.

When we use the term "securities" in this prospectus, we mean any of the securities we may offer with this prospectus, unless we say otherwise. The total aggregate dollar amount of all securities that we may issue will not exceed \$1,000,000,000. If we issue debt securities at a discount from their original stated principal amount, then, for purposes of calculating the total dollar amount of all securities issued under this prospectus, we will treat the initial offering price of the debt securities as the total original principal amount of the general terms that may apply to the securities; the specific terms of any particular securities that we may offer will be described in a separate supplement to this prospectus.

DEBT SECURITIES

Our debt securities may be senior or subordinated in right of payment. For any particular debt securities we offer, the applicable prospectus supplement will describe the specific designation, the aggregate principal or face amount and the purchase price; the ranking, whether senior or subordinated; the stated maturity; the redemption terms, if any; the conversion terms, if any; the rate or manner of calculating the rate and the payment dates for interest, if any; that amount or manner of calculating the amount payable at maturity and whether that amount may be paid by delivering cash, securities or other property; and any other specific terms. We will issue the senior and subordinated debt securities under separate indentures between us and a trustee that we will identify in the applicable prospectus supplement.

WARRANTS

We may offer warrants to purchase our debt securities or common stock. For any particular warrants we offer, the applicable prospectus supplement will describe the underlying security; the expiration date; the exercise price or the manner of determining the exercise price; the amount and

kind, or the manner of determining the amount and kind, of security to be delivered by us upon exercise; and any other specific terms. We may issue the warrants under warrant agreements between us and one or more warrant agents.

COMMON STOCK

We may offer shares of our common stock. Our common stock currently is traded on the Nasdaq National Market under the symbol "SONS".

LISTING

If any securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement will say so.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risk factors set forth in the accompanying prospectus supplement, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2001, filed on May 15, 2001, as well as other information we include or incorporate by reference in this prospectus and the additional information in the other reports we file with the SEC. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect us.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained in this prospectus, any prospectus supplement and the documents we incorporate by reference constitute forward-looking statements that involve substantial risks and uncertainties. In some cases, you can identify these statements by forward-looking words such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," or "continue" and variations of these words or comparable words. In addition, any statements which refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and situations that may cause our industry's actual results, level of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these statements. The risk factors set forth in any prospectus supplement and in the reports we file with the SEC that are incorporated by reference in this prospectus provide examples of risks, uncertainties and events that may cause our actual results to differ from the expectations described or implied in our forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this prospectus. Except as required by law, we do not undertake to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

Unless we specify otherwise in a prospectus supplement, we intend to use the net proceeds from the sales of securities to provide additional funds for our operations and for other general corporate purposes which may include, among other things:

- the repayment of indebtedness;
- working capital;
- capital expenditures; and
- acquisitions of, or investments in, complementary technologies or businesses.

The precise amount and timing of the application of proceeds will depend upon our funding requirements in the future. We may set forth additional information on the use of net proceeds from the sale of securities we offer under this prospectus in a prospectus supplement relating to the specific offering.

DESCRIPTION OF CAPITAL STOCK

GENERAL

Our authorized capital stock consists of 600,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.01 par value per share. As of April 30, 2001, there were approximately 1,000 holders of record of our common stock.

The following description of our common stock, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the common stock that we may offer under this prospectus. For the complete terms of our common stock, please refer to our certificate of incorporation and by-laws that are filed as exhibits to our reports incorporated by reference into the registration statement that includes this prospectus. Delaware's corporation law may also affect the terms of these securities. While the terms we have summarized below will apply generally to any future common stock that we may offer, we will describe the particular terms of any series of these securities in more detail in the applicable prospectus supplement, which may differ from the terms we describe below to the extent indicated in the applicable prospectus supplement.

COMMON STOCK

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares voted can elect all of the directors then standing for election. Holders of common stock are entitled to receive ratably any dividends that may be declared by the board of directors out of legally available funds, subject to any preferential dividend rights of any outstanding preferred stock. Upon our liquidation, dissolution or winding up, the holders of common stock are entitled to receive ratably our net assets available after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The outstanding shares of common stock are, and the shares offered in connection with this offering will be, when issued and paid for, fully paid and non-assessable. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of holders of shares of any series of preferred stock that we may designate and issue in the future without further stockholder approval.

PREFERRED STOCK

Our board of directors is authorized without further stockholder approval to issue from time to time up to an aggregate of 5,000,000 shares of preferred stock in one or more series. The board of directors has discretion to fix or alter the designations, preferences, rights, qualifications, limitations or restrictions of the shares of each series, including the dividend rights, dividend rates, conversion rights, voting rights, term of redemption including sinking fund provisions, redemption price or prices, liquidation preferences and the number of shares constituting any series or designations of any series without further vote or action by our stockholders.

The purpose of authorizing the board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, a majority of our outstanding voting stock. We have no current plans to issue any shares of preferred stock.

REGISTRATION RIGHTS

Pursuant to the terms of an amended and restated Investors' Rights Agreement, some holders of Sonus common stock are entitled to rights with respect to the registration of their shares under the Securities Act. In connection with our acquisition of telecom technologies, inc., or TTI, we have granted additional registration rights to some former TTI shareholders. Set forth below is a summary of the registration rights granted to these groups of stockholders.

RIGHTS GRANTED UNDER OUR INVESTORS' RIGHTS AGREEMENT

DEMAND REGISTRATION RIGHTS. The holders of 35% or more of the shares having registration rights may request that we register shares of common stock. We will be obligated to effect only two registrations pursuant to a demand request by holders of registrable shares.

We are not obligated to effect a registration 90 days prior to the anticipated filing of, or for up to three months from the effective date of, a company-initiated registration. We are also not required to effect a stockholder-requested registration, if the requested registration of shares would adversely affect, to our material harm, any other activity in which we are then engaged. We may only delay stockholder-initiated registrations once every twelve months.

PIGGYBACK REGISTRATION RIGHTS. Stockholders with registration rights have unlimited rights to request that shares be included in any company-initiated registration of common stock other than registrations of shares issued in connection with employee benefit plans, shares issued in connection with business combinations subject to Rule 145 under the Securities Act, convertible debt or other specified registrations. If the registration that we initiate involves an underwriting, however, we will not be obligated to register any shares unless the holders agree to the terms of the underwriting agreement. It may also be necessary, at the discretion of the lead underwriter, to limit the number of selling stockholders in the offering, as a result of which stockholders may only be able to register a pro rata number of registrable shares, if any.

FORM S-3 REGISTRATION RIGHTS. We are eligible, under applicable securities laws, to file registration statements on Form S-3. At this time, one or more stockholders may request that we file a registration statement on Form S-3, so long as the shares offered have an aggregate offering price of at least \$1,000,000 based on the public market price at the time of the request. We will be obligated to effect no more than three registrations pursuant to an S-3 request by holders of registration rights.

FUTURE GRANTS OF REGISTRATION RIGHTS. Without the consent of current stockholders owning at least 66 2/3% of the then outstanding registrable shares, we may not grant further registration rights that would be on more favorable terms than the existing registration rights.

TRANSFERABILITY. The registration rights are transferable upon transfer of registrable securities and notice by the holder to us of the transfer, provided that, in most cases, a specified minimum number of shares, as adjusted for splits, dividends, recapitalizations and similar events, are transferred and the transferee or assignee assumes the rights and obligations of the transferor of the shares.

TERMINATION. The registration rights will terminate as to any particular registrable securities on the date on which the shares are sold pursuant to a registration statement and are no longer subject to Rule 144 under the Securities Act. The piggyback registration rights will expire on May 31, 2003, the third anniversary of our initial public offering.

RIGHTS GRANTED TO FORMER TTI SHAREHOLDERS

On January 18, 2001, we entered into a registration rights agreement with some of the then holders of TTI common stock. In this registration rights agreement, we generally agree to use our reasonable best efforts to cause the shares of our common stock held by those former holders of TTI Class A and Class B common stock to be registered for sale under any registration statement that we propose to file from time to time, whether on our behalf or on behalf of other of our stockholders.

DELAWARE LAW AND CHARTER AND BY-LAW PROVISIONS; ANTI-TAKEOVER EFFECTS

We are subject to the provisions of Section 203 of the General Corporation Law of Delaware. In general, the statute prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to some exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's voting stock.

Our amended and restated certificate of incorporation and amended and restated by-laws provide:

- that the board of directors be divided into three classes, as nearly equal in size as possible, with staggered three-year terms;
- that directors may be removed only for cause by the affirmative vote of the holders of at least 66 2/3% of the shares of our capital stock entitled to vote; and
- that any vacancy on the board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of a majority of the directors then in office.

The classification of the board of directors and the limitations on the removal of directors and filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, Sonus.

Our amended and restated certificate of incorporation and amended and restated by-laws also provide that:

- any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before the meeting and may not be taken by written action in lieu of a meeting; and
- special meetings of our stockholders may only be called by the chairman of the board of directors, the president or by our board of directors.

Our amended and restated by-laws provide that, in order for any matter to be considered "properly brought" before a meeting, a stockholder must comply with requirements regarding advance notice to us. These provisions could delay until the next stockholders' meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions may also discourage another person or entity from making a tender offer for our common stock, because the person or entity, even if it acquired a majority of our outstanding voting securities, would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting, and not by written consent.

Delaware's corporation law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or by-laws, unless a corporation's certificate of incorporation or by-laws, as the case may be, requires a greater percentage. Our amended and restated certificate of incorporation requires the affirmative vote of the holders of at least 66 2/3% of the shares of our capital stock entitled to vote to amend or repeal any of the provisions of our amended and restated certificate of incorporation described in the preceding paragraphs. Generally, our amended and restated by-laws may be amended or repealed by a majority vote of the board of directors or the holders of a majority of the shares of our capital stock issued and outstanding and entitled to vote. To amend our amended and restated by-laws regarding special meetings of stockholders, written actions of stockholders in lieu of a meeting and the election, removal and classification of members of the board of directors requires the affirmative vote of the holders of at least 66 2/3% of the shares of our capital stock entitled to vote. The stockholder vote would be in addition to any separate class vote that might in the future be required pursuant to the terms of any series of preferred stock that might be outstanding at the time any of these amendments are submitted to stockholders.

LIMITATION OF LIABILITY AND INDEMNIFICATION

Our amended and restated certificate of incorporation provides that our directors and officers will be indemnified by us to the fullest extent authorized by Delaware law. This indemnification would cover all expenses and liabilities reasonably incurred in connection with their services for or on behalf of us. In addition, our amended and restated certificate of incorporation provides that our directors will not be personally liable for monetary damages to us for breaches of their fiduciary duty as directors, unless they violated their duty of loyalty to us or our stockholders, acted in bad faith, knowingly or intentionally violated the law, authorized illegal dividends or redemptions or derived an improper personal benefit from their action as directors.

TRANSFER AGENT AND REGISTRAR

The Transfer Agent and Registrar for our common stock is American Stock Transfer & Trust Company.

LISTING

Our common stock is quoted on the Nasdaq National Market under the trading symbol "SONS".

DESCRIPTION OF DEBT SECURITIES

We may offer any combination of senior debt securities or subordinated debt securities. Debt securities are unsecured obligations to repay advanced funds. We may issue any of the senior debt securities and the subordinated debt securities under separate indentures between us, as issuer, and the trustee or trustees identified in a prospectus supplement. The initial forms of these indentures are filed as exhibits to the registration statement of which this prospectus is a part.

The prospectus supplement will describe the particular terms of any debt securities we may offer and may differ from the terms summarized below. The following summaries of the debt securities and certain of the indentures are not complete. We urge you to read the indentures filed as exhibits to the registration statement which includes this prospectus and the description of the debt securities included in the prospectus supplement.

GENERAL

We may issue debt securities in one or more series without limit as to aggregate principal amount for the debt securities of any series. The debt securities will have terms that are consistent with the indentures. Unless the prospectus supplement indicates otherwise, senior debt securities will be unsecured and unsubordinated obligations and will rank equal with all our other unsecured and unsubordinated debt. Subordinated debt securities will be paid only if all payments due under our senior indebtedness, including any outstanding senior debt securities, have been made.

The indentures might not limit the amount of other debt that we may incur or whether that debt is senior to the debt securities offered by this prospectus, and might not contain financial or similar restrictive covenants. The indentures might not contain any provision to protect holders of debt securities against a sudden or dramatic decline in our ability to pay our debt.

The prospectus supplement will describe the debt securities and the price or prices at which we will offer the debt securities. The description will include:

- the title and form of the debt securities;
- any limit on the aggregate principal amount of the debt securities or the series of which they are a part;
- the person to whom any interest on a debt security of the series will be paid;
- the date or dates on which we must repay the principal;
- the rate or rates at which the debt securities will bear interest, if any, the date of dates from which interest will accrue, and the dates on which we must pay interest;
- if applicable, the duration and terms of the right to extend interest payment periods;
- the place or places where we must pay the principal and any premium or interest on the debt securities;
- the terms and conditions on which we may redeem any debt security, if at all;
- any obligation to redeem or purchase any debt securities, and the terms and conditions on which we must do so;
- the denominations in which we may issue the debt securities;
- the manner in which we will determine the amount of principal or any premium or interest on the debt securities;

- the currency in which we will pay the principal of any premium or interest on the debt securities;
- the principal amount of the debt securities that we will pay upon declaration of acceleration of their maturity;
- the amount that will be deemed to the principal amount for any purpose, including the principal amount that will be due and payable upon any maturity or that will be deemed to be outstanding as of any date;
- if applicable, that the debt securities are defeasible and the terms of such defeasance;
- if applicable, the terms of any right to convert debt securities into, or exchange debt securities for, shares of common stock or other securities or property;
- whether we will issue the debt securities in the form of one or more global securities and, if so, the respective depositaries for the global securities and the terms of the global securities;
- the subordination provisions that will apply to any subordinated debt securities;
- any addition to or change in the events of default applicable to the debt securities and any change in the right of the trustee or the holders to declare the principal amount of any of the debt securities due and payable; and
- any addition to or change in the covenants in the indentures.

We may sell the debt securities at a substantial discount below their stated principal amount. We will describe U.S. federal income tax considerations, if any, applicable to debt securities sold at an original issue discount in the prospectus supplement. An "original issue discount security" is any debt security sold for less than its face value, and which provides that the holder cannot receive the full face value if maturity is accelerated. The prospectus supplement relating to any original issue discount securities will describe the particular provisions relating to acceleration of the maturity upon the occurrence of any event of default. In addition, we will describe U.S. federal income tax or other considerations applicable to any debt securities that are denominated in a currency or unit other than U.S. dollars in the prospectus supplement.

CONVERSION AND EXCHANGE RIGHTS

The prospectus supplement will describe, if applicable, the terms on which the debt securities may be converted into or exchanged for common stock or other securities or property. The conversion or exchange may be mandatory or may be at your option. The prospectus supplement will describe how the number of shares of common stock or other securities or property to be received upon conversion or exchange would be calculated.

SUBORDINATION OF SUBORDINATED DEBT SECURITIES

Unless the prospectus supplement indicates otherwise, the following provisions will apply to the subordinated debt securities. The indebtedness underlying the subordinated debt securities will be payable only if all payments due under our senior indebtedness, including any outstanding senior debt securities, have been made. If we distribute our assets to creditors upon any dissolution, winding-up, liquidation or reorganization or in bankruptcy, insolvency, receivership or similar proceedings, we must first pay all amounts due or to become due on all senior indebtedness before we pay the principal of, or any premium of interest on, the subordinated debt securities. In the event the subordinated debt securities are accelerated because of an event of default, we may not make any payment on the subordinated debt securities until we have paid all senior indebtedness or the acceleration is rescinded. If the payment of subordinated debt securities

accelerates because of an event of default, we must promptly notify holders of senior indebtedness of the acceleration.

If we experience a bankruptcy, dissolution or reorganization, holders of senior indebtedness may recover more, ratably, and holders of subordinated debt for subordinated debt securities may recover less, ratably, than our other creditors. The indenture for subordinated debt securities may not limit our ability to incur additional senior indebtedness.

FORM, EXCHANGE AND TRANSFER

We will issue debt securities only in fully registered form, without coupons, and, unless the prospectus supplement indicates otherwise, only in denominations of \$1,000 and integral multiples thereof. The holder of a debt security may elect, subject to the terms of the indentures and the limitations applicable to global securities, to exchange them for other debt securities of the same series of any authorized denomination and of similar terms and aggregate principal amount.

Holders of debt securities may present them for exchange as provided above or for registration of transfer, duly endorsed or with the form of transfer duly executed, at the office of the transfer agent we designate for that purpose. We will not impose a service charge for any registration of transfer or exchange of debt securities, but we may require a payment sufficient to cover any tax or other governmental charge payable in connection with the transfer or exchange. We will name the transfer agent in the prospectus supplement. We may designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, but we must maintain a transfer agent in each place in which we will pay on debt securities.

If we redeem the debt securities, we will not be required to issue, register the transfer of or exchange any debt security during a specified period prior to mailing a notice of redemption. We are not required to register the transfer of or exchange any debt securities selected for redemption, except the unredeemed portion of the debt security being redeemed.

GLOBAL SECURITIES

The debt securities may be represented, in whole or in part, by one or more global securities that will have an aggregate principal amount equal to that of all debt securities of that series. Each global security will be registered in the name of a depository identified in the prospectus supplement. We will deposit the global security with the depository or a custodian, and the global security will bear a legend regarding the restrictions on exchanges and registration of transfer.

No global security may be exchanged in whole or in part for debt securities registered, and no transfer of a global security in whole in part may be registered in the name of any person other than the depository or any nominee or successor of the depository unless:

- the depository is unwilling or unable to continue as depository; or
- the depository is no longer in good standing under the Exchange Act or other applicable statute or regulation.

The depository will determine how all securities issued in exchange for a global security will be registered.

As long as the depository or its nominee is the registered holder of a global security, we will consider the depository or the nominee to be the sole owner and holder of the global security and the underlying debt securities. Except as stated above, owners of beneficial interests in a global security will not be entitled to have the global security or any debt security registered in their names, will not receive physical delivery of certificated debt securities and will not be considered to

be the owners or holders of the global security or underlying debt securities. We will make all payments of principal, premium and interest on a global security to the depositary or its nominee. The laws of some jurisdictions require that some purchasers of securities take physical delivery of securities in definitive form. These laws may prevent you from transferring your beneficial interests in a global security.

Only institutions that have accounts with the depositary or its nominee and persons that hold beneficial interests through the depositary or its nominee may own beneficial interests in a global security. The depositary will credit, on its book-entry registration and transfer system, the respective principal amount of debt securities represented by the global security to the accounts of its participants. Ownership of beneficial interests in a global security will be shown only on, and the transfer of those ownership interests will be effected only through, records maintained by the depositary or any such participant.

The policies and procedures of the depositary may govern payment, transfers, exchanges and other matters relating to beneficial interest in a global security. We and the trustee will assume no responsibility or liability for any aspect of the depositary's or any participant's records relating to, or for payments made on account of, beneficial interests in a global security.

PAYMENT AND PAYING AGENTS

Unless the prospectus supplement indicates otherwise, we will pay principal and any premium or interest on a debt security to the person in whose name the debt security is registered at the close of business on the regular record date for the interest.

Unless the prospectus supplement indicates otherwise, we will pay principal and any premium or interest on the debt securities at the office of our designated paying agent. Unless the prospectus supplement indicates otherwise, the corporate trust office of the trustee will be the paying agent for the debt securities.

Any other paying agents we designate for the debt securities of a particular series will be named in the prospectus supplement. We may designate additional paying agents, rescind the designation of any paying agent or approve a change in the office through which any paying agent acts, but we must maintain a paying agent in each place of payment for the debt securities.

The paying agent will return to us all money we pay to it for the payment of the principal, premium or interest on any debt security that remains unclaimed for a specified period. Thereafter, the holder may look only to us for payment, as an unsecured general creditor.

CONSOLIDATION, MERGER AND SALE OF ASSETS

Under the terms of the indentures, so long as any securities remain outstanding, we may not consolidate or enter into a share exchange with or merge into any other person, in a transaction in which we are not the surviving corporation, or sell, convey, transfer or lease our properties and assets substantially as an entirety to any person, unless:

- the successor assumes our obligations under the debt securities and the indentures; and
- we meet the other conditions described in the indentures.

EVENTS OF DEFAULT

Each of the following will constitute an event of default under each indenture:

- failure to pay the principal of or any premium on any debt security when due;
- failure to pay any interest on any debt security when due, for more than a specified number of days past the due date;
- failure to deposit any sinking fund payment when due;
- failure to perform any covenant or agreement in the indenture, which failure continued for a specified number of days after written notice has been given by the trustee or the requisite holders of the debt securities of that series;
- specified events of bankruptcy, insolvency or reorganization; and
- any other event of default specified in the prospectus supplement.

If an event of default occurs and continues, both the trustee and holders of a specified percentage in aggregate principal amount of the outstanding securities of that series may declare the principal amount of the debt securities of that series to be immediately due and payable. The holder of a majority in aggregate principal amount of the outstanding securities of that series may, under specified circumstances, rescind and annul the acceleration if all events of default, other than the nonpayment of accelerated principal, have been cured or waived.

Except for specified duties in case of an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request or direction of any of the holders, unless the holders have offered the trustee reasonable indemnity. If they provide this indemnification, the holders of a majority in aggregate principal amount of the outstanding securities of any series may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of a debt security of any series may institute any proceeding with respect to the indenture, or for the appointment of a receiver or a trustee, or for any other remedy, unless:

- the holder has previously given the trustee written notice of a continuing event of default;
- the holders of a specified percentage in aggregate principal amount of the outstanding securities of that series have made a written request upon the trustee, and have offered reasonable indemnity to the trustee, to institute the proceeding;
- the trustee has failed to institute the proceeding for a specified period of time after its receipt of the notification; and
- the trustee has not received a direction inconsistent with the request within a specified number of days.

MODIFICATION AND WAIVER

We and the trustee may change an indenture without the consent of any holders with respect to specific matters, including:

- to fix any ambiguity, defect or inconsistency in the indenture; and
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee, either (i) with the written consent of the holders of not less than a majority in aggregate principal amount of the outstanding debt securities of each class that is affected or (ii) by the adoption of a resolution, at a meeting of holders of debt securities at which a quorum is present, by the holders of 66 2/3% in aggregate principal amount of the outstanding debt securities of each class that is affected represented at such meeting. We and the trustee, however, may only make the following changes with the consent of the holder of any outstanding debt securities affected:

- extending the fixed maturity of the series of notes;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or any premium payable upon the redemption, of any debt securities; or
- reducing the percentage of debt securities the holders of which are required to consent to any amendment.

The holders of a majority in principal amount of the outstanding debt securities of any series, or holders of 66 2/3% in aggregate principal amount of such series, acting at a meeting, may waive any past default under the indenture with respect to debt securities of that series, except a default in the payment of principal, premium or interest on any debt security of that series or in respect of a covenant or provision of the indenture that cannot be amended without each holder's consent.

Except in some limited circumstances, we may set any day as a record date for the purpose of determining the holders of outstanding debt securities of any series entitled to give or take any direction, notice, consent, waiver or other action under the indentures, or be present at a meeting of holders of debt securities. In some limited circumstances, the trustee may set a record date. To be effective, the action must be taken by holders of the requisite principal amount of such debt securities within a specified period following the record date.

DEFEASANCE

To the extent stated in the prospectus supplement, we may elect to apply the provisions in the indentures relating to defeasance and discharge of indebtedness, or to defeasance of some restrictive covenants, to the debt securities of any series. The indentures provide that, upon satisfaction of the requirements described below, we may terminate all of our obligations under the debt securities of any series and the applicable indenture, which is known as legal defeasance, other than our obligation:

- to maintain a registrar and paying agents and hold moneys for payment in trust;
- to register the transfer or exchange of the debt securities; and
- to replace mutilated, destroyed, lost or stolen debt securities.

In addition, we may terminate our obligation to comply with any restrictive covenants under the debt securities of any series or the applicable indenture, which is known as covenant defeasance.

We may exercise our legal defeasance option even if we have previously exercised our covenant defeasance option. If we exercise either defeasance option, payment of the debt securities may not be accelerated because of the occurrence of events of default.

To exercise either defeasance option as to debt securities of any series, we must irrevocably deposit in trust with the trustee money and/or obligations backed by a full faith and credit of the United States that will provide money in an amount sufficient in the written opinion of a national recognized firm of independent public accountants to pay the principal of, premium, if any, and

each installment of interest on the debt securities. We may only establish this trust if, among other things:

- no event of default shall have occurred or be continuing;
- in the case of legal defeasance, we have delivered to the trustee an opinion of counsel to the effect that we have received from, or there has been published by, the Internal Revenue Service a ruling or there has been a change in law, which in the opinion of our counsel, provides that holders of the debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred;
- in the case of covenant defeasance, we have delivered to the trustee an opinion of counsel to the effect that the holders of the debt securities will not recognize gain or loss for federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred; and
- we satisfy other customary conditions described in the applicable indenture.

NOTICES

We will mail notices to holders of debt securities as indicated in the prospectus supplement.

TITLE

We may treat the person in whose name a debt security is registered as the absolute owner, whether or not such debt security may be overdue, for the purpose of making payment and for all other purposes.

GOVERNING LAW

The indentures and the debt securities will be governed by and construed in accordance with the laws of the state of New York.

DESCRIPTION OF WARRANTS

GENERAL

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement and may differ from the terms described below.

We may issue, together with other securities or separately, warrants to purchase our debt securities or common stock. We will issue the warrants under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, all as set forth in the applicable prospectus supplement. The warrant agent will act solely as our agent in connection with the warrants of the series being offered and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

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

- the title of the warrants;
- the designation, amount and terms of the securities for which the warrants are exercisable and the procedures and conditions relating to the exercise of such warrants;
- the designation and terms of the other securities, if any, with which the warrants are to be issued and the number of warrants issued with each such security;
- the price or prices at which the warrants will be issued;
- the aggregate number of warrants;
- any provisions for adjustment of the number or amount of securities receivable upon exercise of the warrants or the exercise price of the warrants;
- the price or prices at which the securities purchasable upon exercise of the warrants may be purchased;
- if applicable, the date on and after which the warrants and the securities purchasable upon exercise of the warrants will be separately transferable;
- if applicable, a discussion of the material United States federal income tax considerations applicable to the exercise of the warrants;
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants;
- the date on which the right to exercise the warrants shall commence, and the date on which the right shall expire;
- the maximum or minimum number of warrants which may be exercised at any time; and
- information with respect to book-entry procedures, if any.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

EXERCISE OF WARRANTS

Each warrant will entitle the holder thereof to purchase for cash the amount of debt securities or shares of common stock at the exercise price as will in each case be set forth in, or be determinable as set forth in, the applicable prospectus supplement. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Warrants may be exercised as set forth in the applicable prospectus supplement relating to the warrants offered thereby. Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, forward the purchased

securities. If less than all of the warrants represented by the warrant certificate are exercised, a new warrant certificate will be issued for the remaining warrants.

ENFORCEABILITY OF RIGHTS OF HOLDERS OF WARRANTS

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, that holder's warrants.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following ways from time to time:

- through agents to the public or to investors;
- to underwriters for resale to the public or to investors; or
- directly to investors.

We will set forth in a prospectus supplement the terms of the offering of securities, including:

- the name or names of any agents or underwriters;
- the purchase price of the securities being offered and the proceeds that we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any initial public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchanges on which such securities may be listed.

AGENTS

We may designate agents who agree to use their reasonable or best efforts to solicit purchases for the period of their appointment or to sell securities on a continuing basis.

UNDERWRITERS

If we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. The underwriters will be obligated to purchase all the securities of the series offered if they purchase any of the securities of that series. We may change from time to time any initial public offering price and any discounts or concessions

the underwriters allow or reallow or pay to dealers. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement naming the underwriter the nature of any such relationship.

DIRECT SALES

We may also sell securities directly to one or more purchasers without using underwriters or agents.

Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers and agents may engage in transactions with or perform services for us or our subsidiaries in the ordinary course of their businesses.

TRADING MARKETS AND LISTING OF SECURITIES

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is listed on the Nasdaq National Market. We may elect to list any other class or series of securities on any exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

STABILIZATION ACTIVITIES

Any underwriter may engage in over-allotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

PASSIVE MARKET MARKING

Any underwriters who are qualified market makers on the Nasdaq National Market may engage in passive market making transactions in the securities on the Nasdaq National Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offer or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

LEGAL MATTERS

Bingham Dana LLP, Boston, Massachusetts, will provide us with an opinion as to legal matters in connection with the securities we are offering.

EXPERTS

The consolidated financial statements of Sonus Networks, Inc. as of December 31, 1999 and 2000, and for the years ended December 31, 1998, 1999 and 2000, incorporated by reference in this prospectus to Sonus' Annual Report on Form 10-K for the year ended December 31, 2000, have been audited by Arthur Andersen LLP, independent public accountants, and are incorporated in reliance upon the authority of said firm as experts in giving said report.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the fees and expenses in connection with the issuance and distribution of the securities being registered. Except for the SEC registration fee, all amounts are estimates.

	TOTAL

SEC Registration Fee.....	\$250,000
Printing and Engraving Expenses.....	\$ *
Legal Fees and Expenses.....	\$ *
Accountants' Fees and Expenses.....	\$ *
Blue Sky Fees and Expenses.....	\$ *
Transfer Agent and Trustees Fees and Expenses.....	\$ *
Miscellaneous Costs.....	\$ *

Total.....	\$ *

* To be provided by amendment.

ITEM 15. INDEMNIFICATION OF DIRECTORS, OFFICERS AND EMPLOYEES

Section 145 of the Delaware General Corporation law empowers a Delaware corporation to indemnify its officers and directors and certain other persons to the extent and under the circumstances set forth therein.

The Fourth Amended and Restated Certificate of Incorporation of the Registrant and the Amended and Restated By-laws of the Registrant provide for indemnification of officers and directors of the Registrant and certain other persons against liabilities and expenses incurred by any of them in certain stated proceedings and under certain stated conditions.

The above discussion of the Registrant's Fourth Amended and Restated Certificate of Incorporation, Amended and Restated By-Laws and Section 145 of the Delaware General Corporation Law is not intended to be exhaustive and is qualified in its entirety by such Fourth Amended and Restated Certificate of Incorporation, Amended and Restated By-Laws and statute.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Exhibits:

EXHIBIT NUMBER	DESCRIPTION
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1.1+	Form of Underwriting Agreement.
3.1*	Fourth Amended and Restated Certificate of Incorporation.
3.2+	Certificate of Amendment to Fourth Amended and Restated Certificate of Incorporation of the Registrant.
3.3*	Amended and Restated By-laws of the Registrant.
4.1*	Form of Common Stock Certificate.
4.2+	Form of Senior Indenture.
4.3+	Form of Subordinated Indenture.

EXHIBIT
NUMBER

DESCRIPTION

EXHIBIT NUMBER	DESCRIPTION
4.4+	Form of Warrant.
5.1+	Opinion of Bingham Dana LLP relating to debt securities, common stock and warrants.
23.1	Consent of Arthur Andersen LLP relating to the consolidated financial statements of Sonus Networks, Inc.
23.2+	Consent of Bingham Dana LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).
25.1+	Statement of Eligibility under the Trust Indenture Act of 1939 of a Corporation Designated to Act as Trustee on Form T-1.

+ To be filed by amendment or as an exhibit to a report pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act.

* Incorporated by reference to the same-numbered exhibit to the Registrant's Registration Statement of Form S-1 (333-32206).

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 with 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 20 percent change in the maximum aggregate offering price, set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(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 (i) and (ii) above 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 into the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, 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 the time shall be deemed to be the initial bona fide offering thereof; and

(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.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at the 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 Commission such indemnification is against public policy as expressed in the Securities 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 of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Town of Westford, Commonwealth of Massachusetts, on this 30th day of May, 2001.

SONUS NETWORKS, INC.

By: /s/ HASSAN M. AHMED

 Hassan M. Ahmed
 PRESIDENT AND CHIEF EXECUTIVE OFFICER

POWER OF ATTORNEY

Each person whose signature appears below hereby appoints Hassan M. Ahmed and Stephen J. Nill, and each of them severally, acting alone and without the other, his/her true and lawful attorney-in-fact with full power of substitution or resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign on such person's behalf, individually and in each capacity stated below, any and all amendments, including post-effective amendments to this Registration Statement, and to sign any and all additional registration statements relating to the same offering of securities of the Registration Statement that are filed pursuant to Rule 462(b) of the Securities Act of 1933, 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 or necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes, 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 below by the following persons in the capacities and on the dates indicated:

SIGNATURE -----	TITLE -----	DATE ----
/s/ HASSAN M. AHMED ----- Hassan M. Ahmed	President, Chief Executive Officer and Director (Principal Executive Officer)	May 30, 2001
/s/ STEPHEN J. NILL ----- Stephen J. Nill	Vice President of Finance and Administration, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	May 30, 2001
/s/ RUBIN GRUBER ----- Rubin Gruber	Chairman of the Board of Directors and a Director	May 30, 2001
----- Edward T. Anderson	Director	May , 2001
----- Paul J. Ferri	Director	May , 2001
/s/ PAUL J. SEVERINO ----- Paul J. Severino	Director	May 30, 2001

EXHIBIT INDEX

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3.2+	Certificate of Amendment to Fourth Amended and Restated Certificate of Incorporation of the Registrant.
3.3*	Amended and Restated By-laws of the Registrant.
4.1*	Form of Common Stock Certificate.
4.2+	Form of Senior Indenture.
4.3+	Form of Subordinated Indenture.
4.4+	Form of Warrant.
5.1+	Opinion of Bingham Dana LLP relating to debt securities, common stock and warrants.
23.1	Consent of Arthur Andersen LLP relating to the consolidated financial statements of Sonus Networks, Inc.
23.2+	Consent of Bingham Dana LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).
25.1+	Statement of Eligibility under the Trust Indenture Act of 1939 of a Corporation Designated to Act as Trustee on Form S-1.

+ To be filed by amendment or as an exhibit to a report pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act.

* Incorporated by reference to the same-numbered exhibit to the Registrant's Registration Statement of Form S-1 (333-32206).

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement on Form S-3 of our report dated January 15, 2001 (except with respect to the matters discussed in Note 2 as to which the date is January 18, 2001) included in Sonus Networks, Inc.'s Form 10-K for the year ended December 31, 2000 and to all references to our Firm included in this registration statement.

/s/ Arthur Andersen LLP

Boston, Massachusetts
May 30, 2001