

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM S-8
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
(Address of Principal Executive Offices) (Zip Code)

TELECOM TECHNOLOGIES, INC. AMENDED AND RESTATED 1998 EQUITY INCENTIVE PLAN

SONUS NETWORKS, INC. 2000 RETENTION PLAN
(Full Title of the Plans)

HASSAN M. AHMED
President
and Chief Executive Officer
Sonus Networks, Inc.
5 Carlisle Road
Westford, MA 01886
(Name and Address of Agent for Service)

(978) 692-8999
Telephone Number, Including Area Code, of Agent For Service

Copy to:
DAVID L. ENGEL, ESQ.
JOHAN V. BRIGHAM, ESQ.
BINGHAM DANA LLP
150 Federal Street
Boston, Massachusetts 02110
(617) 951-8000

CALCULATION OF REGISTRATION FEE

Title Of Securities To Be Registered	Amount To Be Registered	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount Of Registration Fee
Common Stock, \$0.001 par value per share to be issued under the Equity Incentive Plan	1,067,156	\$0.80 (1)	\$853,724.80 (1)	\$213.43
	1,182,517	\$1.00 (1)	\$1,182,517.00 (1)	\$295.63
	37,500	\$1.50 (1)	\$56,250.00 (1)	\$14.06
	132,033	\$2.00 (1)	\$264,066.00 (1)	\$66.02
Common Stock, \$0.001 par value per share to be issued under the 2000 Retention Plan	3,000,000	\$26.938 (2)	\$80,814,000.00 (2)	\$20,203.50
TOTAL FEE TO BE PAID BY REGISTRANT				\$20,793.00

- (1) Based on the maximum exercise price of the shares subject to outstanding options issued under the Registrant's Equity Incentive Plan. Such shares are issuable upon exercise of outstanding options with fixed exercise prices. Pursuant to Rule 457(h)(1), the aggregate offering price and the fee have been computed upon the basis of the price at which the options may be exercised. The offering price per share set forth for such shares is the exercise price per share at which such options are exercisable.

- (2) Pursuant to Rule 457(h)(1), the aggregate offering price and amount of the registration fee has been computed with respect to those shares of the common stock issuable under the 2000 Retention Plan that are being registered hereunder. For the purpose of calculating the filing fee only, the average high and low sale price of the Registrant's common stock as quoted on Nasdaq on January 16, 2001 has been used.

PART II

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The following documents filed by Sonus Networks, Inc., file no. 000-30229, with the Securities and Exchange Commission (the "SEC") are hereby incorporated by reference into this Registration Statement:

PERIOD

The description of the common stock of Sonus Networks, Inc. (the "Registrant"), \$0.001 par value per share, contained in the Registrant's Registration Statement on Form 8-A pursuant to Section 12(g) of the Securities Exchange Act.....	Filed April 5, 2000
Quarterly Reports on Form 10-Q.....	Quarters ended, June 30, 2000 and September 30, 2000
Current Reports on Form 8-K.....	Filed on October 13, 2000 and November 17, 2000
Prospectus filed pursuant to Rule 424(b)(1) (file no. 333-52682).....	Filed January 12, 2001

In addition, all documents filed pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities registered hereby have been sold or which deregisters all of such securities then remaining unsold shall be incorporated by reference into this Registration Statement as of the filing date of each.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

As of January 15, 2001, 6 attorneys at Bingham Dana LLP, outside corporate counsel for the Registrant, owned, in the aggregate, 161,781 shares of Sonus Common Stock.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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, as amended to date, 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 Registrant may maintain insurance for the benefit of its directors, officers, employees, agents and certain other persons, insuring such persons against any expense, liability, or loss, including liability under the securities laws.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

The following exhibits are filed as part of this Registration Statement:

EXHIBIT NO.	DESCRIPTION OF DOCUMENTS
4.1	Fourth Amended and Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit No. 3.1 to the Registrant's Registration Statement on Form S-1 (file No. 333-32206).
4.2.	Amended and Restated By-Laws of the Registrant, incorporated by reference to Exhibit No. 3.2 to the Registrant's Registration Statement on Form S-1 (file No. 333-32206).
4.3	telecom technologies, inc. Amended and Restated 1998 Equity Incentive Plan, as amended, incorporated by reference to Exhibit No. 10.3 to the Registrant's Registration Statement on Form S-4 (file No. 333-52682).
4.4	Sonus Networks, Inc. 2000 Retention Plan incorporated by reference to Exhibit No. 10.2 to the Registrant's Registration Statement on Form S-4 (file No. 333-52682).
5	Opinion of Bingham Dana LLP as to the legality of the securities being registered.
23.1	Consent of Arthur Andersen LLP, independent accountants, dated January 18, 2001.
23.2	Consent of Arthur Andersen LLP, independent accountants, dated January 18, 2001.
23.3	Consent of Bingham Dana LLP (included in Exhibit 5).
24	Power of Attorney (included on the signature page of this Registration Statement).

ITEM 9. 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;
 - (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 and 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.

- (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 (1)(i) and (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 Section 15(d) of the Exchange Act that are incorporated by reference in 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 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.

(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 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 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 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 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 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.

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-8 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, as of the 18th day of January 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, Stephen J. Nill, and each of them severally, his true and lawful attorney-in-fact with the authority to execute in the name of each such person, and to file with the Securities and Exchange Commission, together with any exhibits thereto and other documents therewith, any and all amendments (including without limitation post-effective amendments) to this Registration Statement on Form S-8 necessary or advisable to enable the Registrant to comply with the Securities Act of 1933, as amended, and any rules, regulations, and requirements of the Securities and Exchange Commission in respect thereof, which amendments may make such other changes in the Registration Statement as the aforesaid attorney-in-fact executing the same deems appropriate.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities indicated as of the 18th day of January 2001.

SIGNATURE

TITLE

/s/ Hassan M. Ahmed

Hassan M. Ahmed

President, Chief Executive Officer and Director (Principal Executive Officer)

/s/ Stephen J. Nill

Stephen J. Nill

Vice President of Finance and Administration and Chief Financial Officer (Principal Financial and Accounting Officer)

/s/ Rubin Gruber

Rubin Gruber

Chairman of the Board of Directors and Director

/s/ Edward T. Anderson

Edward T. Anderson

Director

/s/ Paul J. Ferri

Paul J. Ferri

Director

/s/ Paul J. Severino

Paul J. Severino

Director

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Bingham Dana LLP
150 Federal Street
Boston, MA 02110

January 18, 2001

Sonus Networks, Inc.
5 Carlisle Road
Westford, MA 01886

Dear Sir or Madam:

We have acted as counsel for Sonus Networks, Inc., a Delaware corporation (the "COMPANY"), in connection with the Company's Registration Statement on Form S-8 to be filed with the Securities and Exchange Commission on or about January 18, 2001 (the "REGISTRATION STATEMENT").

The Registration Statement covers the registration of 3,000,000 shares of the Company's common stock, \$0.001 par value per share, (the "RETENTION PLAN SHARES") to be issued under the terms of the Sonus Networks, Inc. 2000 Retention Plan (the "RETENTION PLAN"), and up to 2,419,206 shares of common stock, \$0.001 par value per share, of the Company (the "OPTION SHARES" and together with the Retention Plan Shares, the "SHARES"), which are to be issued by the Company upon exercise of stock options assumed by the Company in connection with the acquisition of all of the issued and outstanding capital stock of telecom technologies, inc. ("TTI") pursuant to the terms of the Agreement and Plan of Merger and Reorganization, dated as of November 2, 2000, by and among the Company, TTI and Storm Merger Sub. The Option Shares were originally granted to employees and directors under TTI's Amended and Restated 1998 Equity Incentive Plan (the "TTI PLAN") and are currently exercisable upon the same terms and conditions as provided in the TTI plan under which the options were issued, except that the assumed options are exercisable for shares of the Company's common stock.

We have reviewed the corporate proceedings of the Company with respect to the authorization and the issuance of the Shares. We have also examined and relied upon originals or copies of such agreements, instruments, corporate records, certificates, and other documents as we have deemed necessary or appropriate as a basis for the opinions hereinafter expressed. In our examination, we have assumed the genuineness of all signatures, the conformity to the originals of all documents reviewed by us as copies, the authenticity and completeness of all original documents reviewed by us in original or copy form, and the legal competence of each individual executing any document. As to all matters of fact (including factual conclusions and characterizations and descriptions of purpose, intention or other state of mind) we have relied entirely upon certificates of officers of the Company, and have assumed, without independent inquiry, the accuracy of those certificates.

We further assume that all Shares issued upon exercise of options granted pursuant to the TTI Plan and the Retention Plan will be issued in accordance with the terms of such TTI Plan and Retention Plan and that, in the case of the Option Shares, the purchase price of each of the Shares will be greater than or equal to the par value per share of the Shares.

Subject to the limitations set forth herein, we have made such examination of law as we have deemed necessary for the purposes of this opinion. This opinion is limited solely to the Delaware General Corporation Law, as applied by courts located in Delaware, the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting those laws.

Based upon and subject to the foregoing, we are of the opinion that the Shares, when issued and delivered pursuant to awards made under the Retention Plan, or upon the exercise of options duly granted pursuant to the TTI Plan and against the payment of the purchase price therefor, will be validly issued, fully paid, and non-assessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ Bingham Dana LLP
BINGHAM DANA LLP

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement on Form S-8 of our report dated December 1, 2000 on the consolidated financial statements of telecom technologies, inc. included in Sonus Networks, Inc.'s Prospectus filed pursuant to Rule 424(b)(1) File No. 333-52682 dated January 12, 2000 and to all references to our Firm included in this registration statement.

/s/ Arthur Andersen LLP

Arthur Andersen LLP

Boston, Massachusetts
January 18, 2001

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement on Form S-8 of the Sonus Networks, Inc. 2000 Retention Plan of our report dated March 10, 2000 on the consolidated financial statements of Sonus Networks, Inc. included in Sonus Networks, Inc.'s Prospectus filed pursuant to Rule 424(b)(1) File No. 333-52682 dated January 12, 2001 and to all references to our Firm included in this registration statement.

/s/ Arthur Andersen LLP

Arthur Andersen LLP

Boston, Massachusetts
January 18, 2001