





PROSPECTUS

# SONUS NETWORKS, INC.

## COMMON STOCK

This prospectus relates to the resale from time to time of up to 43,125,000 shares of common stock (which we refer to as the "shares") of Sonus Networks, Inc. by the selling stockholder identified in this prospectus. We will not receive any proceeds from the sale of the shares. You should read this prospectus and any applicable prospectus supplement before you invest.

The selling stockholder identified in this prospectus will pay any underwriting discounts and commissions and transfer taxes incurred by it in disposing of the shares, as well as the Securities and Exchange Commission registration fee with respect to the shares covered by this prospectus and fees and expenses of its counsel. We will pay all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus.

The selling stockholder identified in this prospectus, or its pledgees, donees, assignees, transferees or other successors-in-interest, may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our common stock is traded on the NASDAQ Global Select Market under the symbol "SONS." On March 19, 2014, the closing sale price of our common stock on the NASDAQ Global Select Market was \$3.62. You are urged to obtain current market quotations for our common stock.

**Investing in our common stock involves a high degree of risk. See "Risk Factors" on page 2 and any risk factors described in any applicable prospectus supplement and in the documents we incorporate by reference.**

**Neither the Securities and Exchange Commission nor any state securities commission 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.**

**The date of this prospectus is March 20, 2014**

---

**TABLE OF CONTENTS**

<a href="#">PROSPECTUS SUMMARY</a>	1
<a href="#">RISK FACTORS</a>	2
<a href="#">SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</a>	3
<a href="#">USE OF PROCEEDS</a>	4
<a href="#">SELLING STOCKHOLDER</a>	5
<a href="#">CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS</a>	6
<a href="#">PLAN OF DISTRIBUTION</a>	7
<a href="#">LEGAL MATTERS</a>	9
<a href="#">EXPERTS</a>	9
<a href="#">WHERE YOU CAN FIND MORE INFORMATION</a>	9
<a href="#">INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</a>	9

---

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC") using a "shelf" registration process. Under this shelf registration process, the selling stockholder may sell shares of our common stock. This prospectus provides you with a general description of the securities the selling stockholder may offer. Depending on the manner in which the selling stockholder sells securities under this shelf registration statement, we may provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information."

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying supplement to this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any accompanying prospectus supplement. This prospectus and any accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

Unless the context otherwise requires, in this prospectus "Sonus," "we," "us" and "our" refer, collectively, to Sonus Networks, Inc. and its subsidiaries.

## PROSPECTUS SUMMARY

*This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, especially the risks of investing in our common stock discussed under "Risk Factors."*

### **Sonus Networks, Inc.**

We were incorporated in 1997 and are a leading provider of networked solutions for communications service providers (e.g., telecommunications, wireless and cable service providers) and, increasingly, to enterprises to help them advance, protect and unify their communications and improve collaboration. We help many of the world's leading communications service providers and enterprises embrace the next generation of Session Initiation Protocol ("SIP")-based solutions, including Voice over Internet Protocol, video and Unified Communications ("UC") through secure, reliable and scalable Internet Protocol ("IP") networks. Our products include session border controllers ("SBCs"), policy/routing servers, media and signaling gateways and network analytics tools. Our solutions address the need for communications service providers and enterprises to seamlessly link and leverage multivendor, multiprotocol communications systems and applications across their networks, around the world and in a rapidly changing ecosystem of IP-enabled devices such as smartphones and tablets. Our solutions help our customers realize the intended value and benefits of UC platforms, such as Microsoft Lync, by enabling disparate communications environments, commonplace in most enterprises today, to work seamlessly together. Likewise, our solutions facilitate the deployment and adoption of cloud-based communications.

We recently completed two acquisitions:

- On August 24, 2012, we completed the acquisition of Network Equipment Technologies, Inc., which expanded our SBC portfolio, opened new sales channels and added a government installed base to our customer base. This acquisition also provided us with strong expertise in the Microsoft Lync market.
- On February 19, 2014, we completed the acquisition of Performance Technologies, Incorporated, which we believe will enable us to expand and diversify our portfolio with an integrated, virtualized Diameter and SIP-based solution and deliver strategic value to service providers seeking to offer new multimedia services through mobile, cloud-based real-time communications.

We utilize both direct and indirect sales channels to reach our target customers. Customers and prospective customers in the service provider space are traditional and emerging communications providers, including long distance carriers, local exchange carriers, Internet service providers, wireless operators, cable operators, international telephone companies and carriers that provide services to other carriers. Enterprise customers and target enterprise customers include financial institutions, retailers, state and local governments, and other multinational corporations. We collaborate with our customers to identify and develop new, advanced services and applications that can help to reduce costs, improve productivity and generate new revenue.

Our principal executive offices are located at 4 Technology Park Drive, Westford, Massachusetts 01886, our telephone number at that address is (978) 614-8100 and our Internet address is <http://www.sonus.net>. The information on our website is not incorporated by reference in this prospectus, and you should not consider it to be a part of this document. Our Internet address is included as an inactive textual reference only.

## **RISK FACTORS**

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described in this prospectus, any prospectus supplement and the documents incorporated by reference herein or therein, including the risks and uncertainties described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, which was filed with the SEC on February 28, 2014 and is incorporated by reference in this prospectus, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties described in this prospectus and the documents incorporated by reference herein are not the only risks we face. Additional risks and uncertainties that we do not presently know about or that we currently believe are not material may also adversely affect our business. For more information, see "Where You Can Find More Information."

## **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, any accompanying prospectus supplement and the information incorporated by reference in this prospectus or any accompanying prospectus supplement may contain "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to a number of risks and uncertainties. All statements other than statements of historical facts, including statements regarding our future results of operations and financial position, business strategy, plans and objectives of management for future operations and plans for future product development and manufacturing are forward-looking statements. Without limiting the foregoing, the words "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "seeks" and other similar language, whether in the negative or affirmative, are intended to identify forward-looking statements, although not all forward looking statements contain these identifying words. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. We therefore caution you against relying on any of these forward-looking statements. Important factors that could cause actual results to differ materially from those in these forward-looking statements are discussed in the section entitled "Risk Factors" in this prospectus and any accompanying prospectus supplement. Also, any forward-looking statement made by us in this prospectus speaks only as of the date on which this prospectus was first filed. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.



## USE OF PROCEEDS

We are filing the registration statement of which this prospectus is a part to permit the stockholder named in the section entitled "Selling Stockholder" to resell such shares. We will not receive any proceeds from the sale of shares by the selling stockholder. The selling stockholder will pay any underwriting discounts and commissions and transfer taxes incurred by the selling stockholder in disposing of the shares, as well as the SEC registration fee with respect to the shares covered by this prospectus and fees and expenses of its counsel. We will pay all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, fees and expenses of our counsel and accountants, and printing expenses.

## SELLING STOCKHOLDER

### **Background**

We are registering an aggregate of 43,125,000 shares of our common stock held by Galahad Securities Limited.

### **Beneficial Ownership of the Selling Stockholder**

The following table presents information concerning the beneficial ownership of the shares of our common stock by the selling stockholder assuming 270,924,946 shares of common stock outstanding as of March 17, 2014, which includes the 43,125,000 shares to be sold by the selling stockholder in connection with this offering.

The information in the table below with respect to the selling stockholder has been obtained from the selling stockholder. When we refer to the "selling stockholder" in this prospectus, we mean the selling stockholder listed in the table below as offering shares, as well as its pledgees, donees, assignees, transferees and other successors-in-interest and others who may hold any of the selling stockholder's interest.

See "Certain Relationships and Related Transactions" below for a discussion of the material relationships between us and the selling stockholder.

<u>Name of Selling Stockholder</u>	<u>Shares Beneficially Owned Prior to the Offering</u>		<u>Shares Offered</u>	<u>Shares Beneficially Owned After the Offering(1)</u>	
	<u>Number</u>	<u>Percentage</u>		<u>Number</u>	<u>Percentage</u>
Galahad Securities Limited(2)	59,942,137	22.12%	43,125,000	16,817,137	6.21%

- (1) Based on 270,924,946 shares of common stock outstanding as of March 17, 2014 and assuming all registered shares are sold in the market.
- (2) According to a Schedule 13D/A No. 12 filed with the SEC on August 28, 2013, reporting beneficial ownership of 59,942,137 shares of our common stock, each of Galahad Securities Limited, Legatum Capital Limited, Legatum Global Holdings Limited, Legatum Global Investment Limited and Senate Limited (acting on behalf of a trust formed under the laws of The Cayman Islands as of July 1, 1996) reports sole voting power and sole dispositive power of the 59,942,137 shares.

**CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

***August 2013 Share Repurchase***

On August 22, 2013, as part of our stock buyback program announced on July 29, 2013, we entered into a purchase agreement with the selling stockholder to repurchase 7,352,942 shares of our common stock from the selling stockholder at a price per share of \$3.40, the closing market price of our common stock on August 22, 2013. This repurchase was effectuated on August 27, 2013.

## PLAN OF DISTRIBUTION

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholder. The term "selling stockholder" includes pledgees, donees, assignees, transferees or other successors-in-interest selling shares received after the date of this prospectus from the selling stockholder as a gift, pledge, partnership distribution or other non-sale related transfer. The selling stockholder will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then-current market price or in negotiated transactions. The selling stockholder may sell its shares by one or more of, or a combination of, the following methods:

- an underwritten offering;
- purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- an over-the-counter distribution in accordance with the rules of the NASDAQ Global Select Market;
- in privately negotiated transactions; and
- in options transactions.

In addition, any shares that qualify for sale pursuant to Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"), may be sold under Rule 144 rather than pursuant to this prospectus.

If the selling stockholder uses one or more underwriters in the sale, such underwriter(s) will acquire the shares of our common stock covered by this prospectus for their own account. The underwriter(s) may resell the shares of our common stock in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution, including the names of any underwriters, the purchase price and the proceeds the selling stockholder will receive from the sale, any underwriting discounts and other items constituting underwriters' compensation, any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers, and any other information we believe to be material.

In connection with distributions of the shares or otherwise, the selling stockholder may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the common stock in the course of hedging the positions they assume with the selling stockholder. The selling stockholder may also sell the common stock short and redeliver the shares to close out such short positions. The selling stockholder may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The selling stockholder may also pledge shares to a broker-dealer or other financial

institution, and, upon a default, such broker-dealer or other financial institution may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

In effecting sales, broker-dealers or agents engaged by the selling stockholder may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the selling stockholder in amounts to be negotiated immediately prior to the sale.

In offering the shares covered by this prospectus, any broker-dealers who execute sales for the selling stockholder may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. The compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

In order to comply with the securities laws of certain states, if applicable, the shares must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the selling stockholder that the anti-manipulation rules of Regulation M under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), may apply to sales of shares in the market and to the activities of the selling stockholder and its affiliates. In addition, we will make copies of this prospectus available to the selling stockholder for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholder may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered, the method of distribution and the terms of the offering, including the name or names of any underwriters, dealers or agents, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallocated or paid to any dealer, and the proposed selling price to the public.

We have agreed to indemnify the selling stockholder against certain liabilities, including certain liabilities under the Securities Act.

## LEGAL MATTERS

The validity of the shares offered by this prospectus has been passed upon by Jeffrey M. Snider, Senior Vice President, Chief Administrative Officer, General Counsel and Secretary of Sonus. Mr. Snider is a full-time employee of Sonus and owns, or has the right to acquire, a number of shares of Sonus' common stock which represents less than 1% of the total outstanding common stock of Sonus.

## EXPERTS

The consolidated financial statements incorporated in this prospectus by reference from Sonus Networks, Inc.'s Annual Report on Form 10-K, and the effectiveness of Sonus Networks, Inc.'s internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other documents with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. Our SEC filings are also available to you on the SEC's website at <http://www.sec.gov>.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the Registration Statement from the SEC at the address listed above or from the SEC's website.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC requires us to "incorporate" into this prospectus information that we file with the SEC in other documents. This means that we can disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this prospectus. Information contained in this prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus automatically updates and supersedes previously filed information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the sale of all the shares covered by this prospectus, in each case other than any documents or portions thereof that are "furnished" and not deemed "filed" with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our Current Reports on Form 8-K or Form 8-K/A unless, and except to the extent, specified in such Current Report:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, as filed with the SEC on February 28, 2014;
- Our Definitive Proxy Statement on Schedule 14A, as filed with the SEC on April 25, 2013 (excluding those portions that are not incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2012);
- Our Current Reports on Form 8-K and 8-K/A, as filed with the SEC on June 18, 2013, July 29, 2013 (Item 5.02 only), September 4, 2013, September 12, 2013, October 29, 2013 (Item 5.02 only), December 11, 2013, January 6, 2014 and February 18, 2014; and

- The description of our common stock contained in our Registration Statement on Form 8-A, as filed with the SEC on April 5, 2000, including any amendments or reports filed for the purpose of updating such description.

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

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

Sonus Networks, Inc.  
4 Technology Park Drive  
Westford, Massachusetts 01886  
Attn: Corporate Secretary  
Telephone: (978) 614-8100

---

**SONUS NETWORKS, INC.**

**Common Stock**

**Prospectus**

---

---



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

The following table sets forth the various expenses to be incurred in connection with the sale and distribution of the securities being registered hereby (except any underwriting discounts and commissions and transfer taxes incurred by the selling stockholder in disposing of the shares), all of which will be borne by the Registrant (except as otherwise noted). All amounts shown are estimates except the SEC registration fee.

SEC registration fee(1)	\$ 19,164
Legal fees and expenses(2)	170,000
Accounting fees and expenses	150,000
Miscellaneous expenses	10,836
<b>Total expenses</b>	<b><u>\$ 350,000</u></b>

- (1) The selling stockholder has agreed to reimburse the Registrant for this amount.
- (2) The Registrant and the selling stockholder will be responsible for their own legal fees and expenses.

**Item 15. Indemnification of Directors and Officers.**

Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The Registrant's certificate of incorporation provides that no director shall be personally liable to the Registrant or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

The Registrant's certificate of incorporation and by-laws provide that the Registrant will, to the fullest extent permitted by Section 145 of the Delaware General Corporation Law, indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or

completed action, suit or proceeding whether civil, criminal, administrative or investigative by reason of the fact that he is or was, or has agreed to become, a director or officer of the Registrant, or is or was serving, or has agreed to serve, at the Registrant's request as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with such action, suit or proceeding and any appeal therefrom. The right to indemnification does not apply to any proceeding initiated by such persons unless the initiation of the proceeding was approved by the Registrant's board of directors.

The Registrant maintains a general liability insurance policy which covers certain liabilities of its directors and officers of the Registrant arising out of claims based on acts or omissions in their capacities as directors or officers.

The Registrant has generally entered into indemnification agreements with its directors and officers. These indemnification agreements require the Registrant, among other things, to indemnify its directors and officers for certain expenses (including attorneys' fees), judgments, fines, penalties and settlement amounts, actually and reasonably incurred by a director or officer in any action or proceeding arising out of his service as one of the Registrant's directors or officers, or as a director, partner, trustee, officer, employee or agent of another entity at the Registrant's request.

**Item 16. Exhibits.**

The exhibits to this Registration Statement are listed in the exhibit index, which appears elsewhere herein and is incorporated herein by reference.

**Item 17. Undertakings.**

*Item 512(a) of Regulation S-K.* 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, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of this 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 this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 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 this Registration Statement or any material change to such information in this Registration Statement;

*provided, however,* that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or

Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in this Registration Statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this 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.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser,

(i) each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

*Item 512(b) of Regulation S-K.* 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 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 this 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.

*Item 512(h) of Regulation S-K.* 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.

*Item 512(i) of Regulation S-K.* The undersigned Registrant hereby undertakes that:

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

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

## 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 City of Westford, Commonwealth of Massachusetts, as of this 20th day of March, 2014.

### SONUS NETWORKS, INC.

By: /s/ JEFFREY M. SNIDER

---

Name: Jeffrey M. Snider  
Title: Senior Vice President,  
Chief Administrative Officer,  
General Counsel and Secretary

## SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Sonus Networks, Inc., hereby severally constitute and appoint Mark T. Greenquist and Jeffrey M. Snider, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below the Registration Statement on Form S-3 filed herewith and any and all pre-effective and post-effective amendments to said Registration Statement, and generally to do all such things in our names and behalf in our capacities as officers and directors to enable Sonus Networks, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said Registration Statement and any and all amendments thereto.

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 and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ RAYMOND P. DOLAN</u> Raymond P. Dolan	President and Chief Executive Officer (Principal Executive Officer) and Director	March 20, 2014
<u>/s/ MARK T. GREENQUIST</u> Mark T. Greenquist	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 20, 2014
<u>/s/ HOWARD E. JANZEN</u> Howard E. Janzen	Chairman	March 20, 2014
<u>/s/ JAMES K. BREWINGTON</u> James K. Brewington	Director	March 20, 2014

---

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<hr/> <i>/s/ MATTHEW W. BROSS</i>		
Matthew W. Bross	Director	March 20, 2014
<hr/> <i>/s/ JOHN P. CUNNINGHAM</i>		
John P. Cunningham	Director	March 20, 2014
<hr/> <i>/s/ BEATRIZ V. INFANTE</i>		
Beatriz V. Infante	Director	March 20, 2014
<hr/> <i>/s/ RICHARD J. LYNCH</i>		
Richard J. Lynch	Director	March 20, 2014
<hr/> <i>/s/ PAMELA D.A. REEVE</i>		
Pamela D.A. Reeve	Director	March 20, 2014
<hr/> <i>/s/ JOHN A. SCHOFIELD</i>		
John A. Schofield	Director	March 20, 2014
<hr/> <i>/s/ SCOTT E. SCHUBERT</i>		
Scott E. Schubert	Director	March 20, 2014
<hr/> <i>/s/ H. BRIAN THOMPSON</i>		
H. Brian Thompson	Director	March 20, 2014

---

## EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
1.1*	Form of Underwriting Agreement
4.1	Fourth Amended and Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to the Registrant's Current Report on Form 8-K, filed on June 22, 2009 (File No. 001-34155))
4.2	Amended and Restated By-Laws of the Registrant (incorporated herein by reference to the Registrant's Current Report on Form 8-K, filed on June 22, 2009 (File No. 001-34155))
4.3	Form of Stock Certificate representing shares of the Registrant's Common Stock (incorporated herein by reference to Exhibit 4.1 to Amendment No. 2 of the Registrant's Registration Statement on Form S-1, filed on May 19, 2000 (File No. 333-32206))
5.1	Opinion of Jeffrey M. Snider, Senior Vice President, Chief Administrative Officer, General Counsel and Secretary of the Registrant
23.1	Consent of Deloitte & Touche LLP, independent registered public accounting firm
23.2	Consent of Jeffrey M. Snider (included in Exhibit 5.1)
24.1	Powers of Attorney (included on the signature pages to the Registration Statement)

---

\* To be filed by amendment or by a Current Report on Form 8-K.

---





[Sonus Networks, Inc. Letterhead]

March 20, 2014  
Sonus Networks, Inc.  
4 Technology Park Drive  
Westford, Massachusetts 01886

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Registration Statement on Form S-3 (the "Registration Statement") filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of an aggregate of 43,125,000 shares of common stock, \$0.001 par value per share (the "Shares"), of Sonus Networks, Inc., a Delaware corporation (the "Company"). All of the Shares are being registered on behalf of a certain stockholder of the Company (the "Selling Stockholder").

I am the Senior Vice President, Chief Administrative Officer, General Counsel and Secretary of the Company and have acted as counsel for the Company in connection with the registration for resale of the Shares. I or a member of the Company's Legal Department have examined signed copies of the Registration Statement filed with the Commission. I or a member of the Company's Legal Department have also examined and relied upon minutes of meetings of the stockholders and the Board of Directors of the Company, the Certificate of Incorporation and By-Laws of the Company, each as restated and/or amended to date, and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

In my examination or in the examination by a member of the Company's Legal Department of the foregoing documents, I or a member of the Company's Legal Department have assumed the genuineness of all signatures, the authenticity of all documents submitted to either of us as originals, the conformity to original documents of all documents submitted to either of us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents.

My opinion below, insofar as it relates to the Selling Stockholder's shares being fully paid, is based solely on a certificate of the Chief Financial Officer of the Company confirming the Company's receipt of the consideration called for by the applicable resolutions authorizing the issuance of such shares.

I assume that the appropriate action will be taken, prior to the offer and sale of the Shares, to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws.

I express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

Based upon and subject to the foregoing, I am of the opinion that the Shares have been duly authorized and are validly issued, fully paid and nonassessable.

Please note that I am opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion is based upon currently existing statutes, rules, regulations and judicial decisions, and I disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

I hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement in accordance with the requirements of Item 601(b) (5) of Regulation S-K under the Securities Act and to the use of my name therein and in the related prospectus under the caption "Legal Matters." In giving such consent, I do not hereby admit that I am in the category of persons

---

whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

By:           /s/ JEFFREY M. SNIDER          

Jeffrey M. Snider  
*Senior Vice President, Chief Administration  
Officer, General Counsel and Secretary*

QuickLinks

[Exhibit 5.1](#)

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our reports dated February 28, 2014, relating to the consolidated financial statements of Sonus Networks, Inc., and the effectiveness of Sonus Networks, Inc.'s internal control over financial reporting, appearing in the Annual Report on Form 10-K of Sonus Networks, Inc. for the year ended December 31, 2013, and to the reference to us under the heading "Experts" in the prospectus, which is part of this Registration Statement.

*/s/ Deloitte & Touche LLP*

Boston, Massachusetts  
March 20, 2014

---

QuickLinks

[Exhibit 23.1](#)

[CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM](#)