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Registration No. 333-194701

Prospectus Supplement to Prospectus dated March 20, 2014.

37,500,000 Shares

Sonus Networks, Inc.

Common Stock

All of the shares of common stock in the offering are being sold by the selling stockholder identified in this prospectus supplement. Sonus Networks, Inc. will not receive any of the proceeds from the sale of the shares being sold by the selling stockholder.

Subject to the completion of the offering, we will repurchase from the underwriters approximately \$75 million of the 37,500,000 shares of our common stock that are the subject of this offering at a price per share equal to the price at which the underwriters purchase such shares from the selling stockholder in this offering.

The common stock is listed on the NASDAQ Global Select Market under the symbol "SONS". The last reported sale price of the common stock on March 20, 2014 was \$3.635 per share.

See "Risk Factors" on page S-4 of this prospectus supplement and page 2 of the accompanying prospectus to read about factors you should consider before buying shares of the common stock.

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 supplement and the accompanying prospectus. Any representation to the contrary is a criminal offense.

		Per Share	Total
Initial price to public	\$	3.5300	\$ 131,476,256(1)
Underwriting discount(2)	\$	0.0418	\$ 668,756
Proceeds, before expenses, to the selling stockholder	\$	3.4882	\$ 130,807,500

(1) The total initial price to public reflects the sale of 21,501,060 shares of common stock to us at a price of \$3.4882 per share.

(2) The underwriters will receive no underwriting discount or commission on the sale of 21,501,060 shares of common stock to us.

The underwriters have the option to purchase up to an additional 5,625,000 shares from the selling stockholder at the initial price to public less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on March 25, 2014.

Goldman, Sachs & Co.

Prospectus Supplement dated March 20, 2014.

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We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement and the accompanying prospectus is current only as of the respective dates of such documents.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should read carefully the entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference, especially the risks of investing in our common stock discussed under "Risk Factors." Unless the context otherwise requires, in this prospectus supplement "Sonus," "we," "us" and "our" refer, collectively, to Sonus Networks, Inc. and its subsidiaries.

Sonus Networks, Inc.

We were incorporated in 1997 and are a leading provider of networked solutions for communications service providers (e.g., telecommunication, 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 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 supplement, and you should not consider it to be a part of this document. Our Internet address is included as an inactive textual reference only.

The Share Repurchase

Subject to the completion of this offering, we will repurchase from the underwriters approximately \$75 million of the 37,500,000 shares of our common stock that are the subject of this offering. We refer to this transaction as the "share repurchase."

To effect the share repurchase, we will pay a per share price to the underwriters equal to the price paid by the underwriters to purchase the shares from the selling stockholder in this offering. The repurchased shares will no longer be outstanding following completion of this offering. We intend to fund the share repurchase with cash on hand. The share repurchase by Sonus in this offering does not reduce the amount Sonus may repurchase under its \$100 million stock repurchase plan announced on July 29, 2013, of which approximately \$40.6 million remains available for future purchases.

In connection with this offering and the share repurchase, we and the selling stockholder have entered into an agreement by which we have agreed to indemnify the selling stockholder for any liability to the underwriters that the selling stockholder may become subject to due to information contained or incorporated by reference in the registration statement relating to this offering (other than certain limited information about the selling stockholder provided by it for inclusion therein).

Nothing in this prospectus supplement should be construed as an offer to sell, or the solicitation of an offer to buy, any of our common stock subject to the share repurchase.

The Offering

Common stock offered by the selling stockholder	37,500,000 shares
Share repurchase	Subject to the completion of this offering, we will repurchase from the underwriters approximately \$75 million of the 37,500,000 shares of our common stock that are the subject of this offering, see "— The Share Repurchase."
Common stock to be outstanding after this offering and the share repurchase	249,423,886 shares(1)
Selling stockholder	Galahad Securities Limited. For more information, see the section of this prospectus supplement entitled "Selling Stockholder."
Common stock to be beneficially owned by the selling stockholder after the offering and the share repurchase	22,442,137 shares(2)
Option to purchase additional shares	The selling stockholder has granted the underwriters a 30-day option to purchase up to an additional 5,625,000 shares of our common stock at the price at which the underwriters will purchase the shares from the selling stockholder in this offering.
Use of proceeds	We will not receive any proceeds from the sale of any shares of our common stock offered by the selling stockholder.
Risk factors	See "Risk Factors" on page S-4 of this prospectus supplement and other information included in or incorporated by reference in this prospectus supplement and the accompanying prospectus, including the section entitled "Risk Factors" beginning on page 12 of our annual report on Form 10-K for the year ended December 31, 2013 filed with the SEC on February 28, 2014 for a discussion of factors you should carefully consider before deciding to invest in our common stock.
NASDAQ Global Select Market symbol for our common stock	SONS

- (1) Based on 270,924,946 shares of common stock outstanding as of March 17, 2014 minus the 21,501,060 shares of common stock we will repurchase from the underwriters, which shares will no longer be outstanding after the completion of the share repurchase.
- (2) The underwriters have been granted an option to purchase an additional 5,625,000 shares. If the underwriters exercise this option in full the number of shares beneficially owned after the offering will be 16,817,137.

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 supplement, the prospectus 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 supplement, 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 supplement, the 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 supplement, the accompanying prospectus and the information incorporated by reference in this prospectus supplement or the accompanying prospectus 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 supplement and the accompanying prospectus. Also, any forward-looking statement made by us in this prospectus supplement speaks only as of the date on which this prospectus supplement 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

All shares of our common stock offered by this prospectus supplement will be sold by the selling stockholder. We will not receive any of the proceeds from the sale of these shares. 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

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 all of the shares to be sold by the selling stockholder in connection with this offering and giving effect to the reduction in outstanding shares as a result of the share repurchase.

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 supplement, we mean the selling stockholder listed in the table below as offering shares, as well as its respective pledgees, donees, assignees, transferees and other successors-in-interest and others who may hold any of the selling stockholder's interest.

Name of Selling Stockholder	Shares Beneficially Owned Prior to the Offering		Shares Offered	Shares Beneficially Owned After the Offering and the Share Repurchase(1)	
	Number	Percentage		Number	Percentage
Galahad Securities Limited(2)	59,942,137	22.12%	37,500,000(3)	22,442,137	9.00%

- (1) Based on 270,924,946 shares of common stock outstanding as of March 17, 2014 minus the 21,501,060 shares of common stock we will repurchase from the underwriters, which shares will no longer be outstanding after the completion of the share repurchase.
- (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.
- (3) The underwriters have been granted an option to purchase an additional 5,625,000 shares. If the underwriters exercise this option in full the number of shares beneficially owned after the offering will be 16,817,137 or 6.74%.

UNDERWRITING

The company, the selling stockholder and the underwriters have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, the underwriters have agreed to purchase all of the 37,500,000 shares offered hereby. The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional 5,625,000 shares from the selling stockholder. The underwriters may exercise that option for 30 days.

The following table shows the initial price to public, underwriting discount and proceeds, before expenses, to the selling stockholder. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 5,625,000 additional shares.

	<u>Per Share</u>	<u>No Exercise</u>	<u>Full Exercise</u>
Initial price to public	\$ 3.5300	\$ 131,476,256(1)	\$ 151,332,505(1)
Underwriting discount(2)	\$ 0.0418	\$ 668,756	\$ 903,880
Proceeds, before expenses, to the selling stockholder	\$ 3.4882	\$ 130,807,500	\$ 150,428,625

- (1) The total initial price to public reflects the sale of 21,501,060 shares of common stock to us at a price of \$3.4882 per share.
- (2) The underwriters will receive no underwriting discount or commission on the sale of 21,501,060 shares of common stock to us.

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus. In addition, the underwriters may receive from purchasers of the shares normal brokerage commissions in amounts agreed with such purchasers. After the offering of the shares, the underwriters may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

Subject to the completion of this offering, the company will repurchase from the underwriters approximately \$75 million of the 37,500,000 shares of the company's common stock that are the subject of this offering, see "Prospectus Supplement Summary — The Share Repurchase." The underwriters will receive no underwriting discount or commission on the sale of such 21,501,060 shares of common stock to the company.

The company and the selling stockholder and certain other parties have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through the date 60 days after the date of this prospectus supplement, except with the prior written consent of the underwriters. This agreement does not apply to any existing employee benefit plans.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase

additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the company's stock and may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on the NASDAQ Global Select Market, in the over-the-counter market or otherwise.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), the underwriters have represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) they have not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that they may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- (a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- (c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the underwriters for any such offer; or
- (d) in any other circumstances which do not require the publication by the company of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant

Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The underwriters have represented and agreed that:

- (a) they have only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by them in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA would not, if the company was not an authorized person, apply to the company; and
- (b) they have complied and will comply with all applicable provisions of the FSMA with respect to anything done by them in relation to the shares in, from or otherwise involving the United Kingdom.

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Securities and Exchange Law) and the underwriters have agreed that they will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any

resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

The company and the selling stockholder estimate that their share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$350,000.

The company and the selling stockholder have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

The underwriters and their affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. The underwriters and their affiliates have provided, and may in the future provide, a variety of these services to the company and to persons and entities with relationships with the company, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the company (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the company. The underwriters and their affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

LEGAL MATTERS

The validity of the common stock offered by this prospectus supplement has been passed upon Jeffrey M. Snider, Senior Vice President, Chief Administrative Officer, General Counsel and Secretary of Sonus. Certain other legal matters will be passed upon for Sonus by Wilmer Cutler Pickering Hale and Dorr LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriters by Ropes & Gray LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements incorporated in this prospectus supplement 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 supplement is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus supplement 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 supplement 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 supplement. Information contained in this prospectus supplement and information that we file with the SEC in the future and incorporate by reference in this prospectus supplement 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 supplement and prior to the sale of all the shares covered by this prospectus supplement, 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 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 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 on April 5, 2000, including any amendments or reports filed for the purpose of updating such description.

You should read the information relating to us in this prospectus supplement together with the information in the accompanying prospectus and the documents incorporated by reference. Nothing contained herein shall be deemed to incorporate information furnished to, but not filed with, the SEC.

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

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

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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.

Name of Selling Stockholder	Shares Beneficially Owned Prior to the Offering		Shares Offered	Shares Beneficially Owned After the Offering(1)	
	Number	Percentage		Number	Percentage
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

37,500,000 Shares

Sonus Networks, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

Goldman, Sachs & Co.
