

October 19, 2006

Ms. Kathleen Collins
Accounting Branch Chief
United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street N.E.
Washington, D.C. 20549

Re: Sonus Networks, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2005 Filed March 14, 2006
Form 10-Q for the Fiscal Quarter Ended March 31, 2006 Filed on May 8, 2006
Form 8-K filed on March 13, 2006
Form 8-K filed on May 8, 2006
Form 8-K filed on August 7, 2006
File No. 000-30229

Dear Ms. Collins:

On behalf of Sonus Networks, Inc. (the "Company", "Sonus", "us", "we", "our"), this letter is being sent to you in response to your letter dated September 20, 2006 with respect to the above-referenced filings as reviewed by the Securities and Exchange Commission's Staff (the "Staff"). Set forth below are the Company's responses to the Staff's comments included in that letter. The comments will be addressed in future filings as applicable. For the convenience of the Staff, each of the Staff's comments is set out immediately preceding the corresponding response.

Form 10-K for the Fiscal Year Ended December 31, 2005

Note (1) Operations and Significant Accounting Policies

(i) Revenue Recognition, page F-12

1. We note your disclosure that "VSOE is determined based upon the price charged when the same element is sold separately or established by the relevant pricing authority." Tell us in detail how you have established VSOE for each of the elements present in your multi-element arrangements. In this regard, address the following:
 - Specifically describe the elements or type of transaction where you have relied on the price established by authorized management to establish VSOE. Note that in situations where VSOE of fair value is determined by management having relevant authority and has not yet been sold separately, the period of time until the element is expected to be sold separately should be relatively short.
 - Describe the process you use to evaluate the various factors that affect your VSOE (e.g. purchase volume, competitive pricing, duration of the arrangement, region, distribution channel and specific requirements of the order). Does the price charged for the individual elements vary from customer to customer? If so, please explain how the Company determined that they can reasonably estimate fair value of each undelivered element. Tell us how you considered the guidance in paragraphs 10 and 57 of SOP 97-2.
 - Regarding post-contract technical support, do your contracts contain stated renewal rates? If yes, do your customers actually renew at those rates or are they renegotiated?

We may have further comments based on your response.

Response:

As disclosed in the notes to our 2005 consolidated financial statements, many of our sales involve multiple element arrangements. The Company's multiple element arrangements may consist of any combination of our products, specified features or upgrades, maintenance and/or professional services. We apply the literature found in Statement of Position ("SOP") No. 97-2, "Software Revenue Recognition", as amended. Because we have not established VSOE of fair value for our products or specified features/upgrades, we recognize revenue using the residual method as illustrated by SOP 98-9, "Modification of SOP 97-2, Software Revenue Recognition, With Respect to Certain Transactions". If the Company cannot establish VSOE for any undelivered element, including specified features or upgrades, the Company defers revenue on the entire arrangement until VSOE for all undelivered elements is known or all elements are delivered and all other revenue recognition criteria are met.

The Company has established VSOE of fair value for maintenance arrangements (post-contract customer support) and some professional services. Professional services for which the Company has established VSOE include training, resident engineer services and installation services.

In accordance with paragraph 10 of SOP No 97-2, our policy states VSOE of fair value for maintenance and professional services is determined by either:

- The price charged when the same element is sold separately, or
- The price established by management having the relevant authority.

The Company's Pricing Committee has the relevant authority for establishing pricing for products and services. The Pricing Committee, chaired by the Vice President of Marketing, consists of members from the sales, product management, services and finance organizations. The Pricing Committee maintains the requisite authority to review, approve, and establish the prices for products and services based upon its cumulative knowledge of the market and competitive landscape. Periodically, the Pricing Committee will update our pricing structure for products and services. When new pricing is implemented, the pricing is implemented prospectively for new arrangements.

On a quarterly basis we evaluate the various elements of our sales transactions that have VSOE of fair value to determine if VSOE of fair value has been maintained.

We have organized our response to the Staff's comments as follows:

- *Specifically describe the elements or type of transaction where you have relied on the price established by authorized management to establish VSOE. Note that in situations where VSOE of fair value is determined by management having relevant authority and has not yet been sold separately, the period of time until the element is expected to be sold separately should be relatively short.*

As noted above, our policy provides for establishing VSOE of fair value through the Company's Pricing Committee. However, to date, the Company has not relied on the Pricing Committee to establish VSOE of fair value for any of its elements.

- *Describe the process you use to evaluate the various factors that affect your VSOE (e.g. purchase volume, competitive pricing, duration of the arrangement, region, distribution channel and specific requirements of the order). Does the price charged for the individual elements vary from customer to customer? If so, please explain how the Company determined that they can reasonably estimate fair value of each undelivered element. Tell us how you considered the guidance in paragraphs 10 and 57 of SOP 97-2.*

The Company considers the guidance in both paragraphs 10 and 57 of SOP No. 97-2 when establishing VSOE of fair value. As mentioned previously, the Company has not established VSOE of fair value for products or specified features/upgrades. Although maintenance is generally not sold separately at the inception of an arrangement, it is sold separately from the product license in renewal periods, satisfying the requirements of both sections of SOP 97-2. VSOE of fair value for our training, resident engineer services, and on-site and installation services is based upon the price when sold separately or the price charged on a consistent basis. The process we use to evaluate the various factors affecting VSOE of fair value includes classifying our customers based upon purchase volumes, distribution channels, and regions. Although our product prices may vary from customer to customer, our maintenance renewal rates and professional services rates are consistent across similarly classified customers.

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- *Regarding post-contract technical support, do your contracts contain stated renewal rates? If yes, do your customers actually renew at those rates or are they renegotiated?*

The Company's post-contract technical support agreements contain stated renewal rates which are substantive and are not generally subject to renegotiation.

(m) Disclosures about Segments of an Enterprise, page F-15

2. Tell us how you considered the guidance in paragraph 10 of SFAS No. 131 in determining that you have only one operating segment. Specifically address why your various geographic regions or product and service lines are not considered separate operating segments

Response:

SFAS No. 131 paragraph 10 states: "An *operating segment* is a component of an enterprise: a. That engages in business activities from which it may earn revenues and incur expenses...b. Whose operating results are regularly reviewed by the enterprise's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and c. For which discrete financial information is available."

The Company's chief operating decision maker is the Chief Executive Officer ("CEO") who organizationally has two (2) direct reports—the Chief Technical Officer and the Chief Operating Officer ("COO"). The COO direct reports are organized and managed functionally (sales, marketing, engineering, customer support, and finance and administration) as opposed to product line, geographical region, or strategic business units.

The Company has employees, facilities, and customers all over the world, and maintains technical assistance centers, test and customer support centers, and performs research and development activities, both within and outside the United States. Personnel outside the U.S. typically have reporting line responsibilities into the heads of sales, marketing, engineering, etc. as opposed to a local or regional general manager.

Revenue is earned and costs incurred selling and marketing voice infrastructure solutions to telecommunication wireline and wireless service providers globally, allowing them to build converged voice over IP (VoIP) networks. The product and services offerings transcend the traditional telecommunication markets—wireline and wireless.

The business cost centers are not organized on the basis of differences in related products and services. Costs are aggregated by function and reviewed regularly by the CEO along with the COO and other managers who

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make decisions about resource allocations in the context of a particular organization function while considering all other factors including geography and product line.

Discrete financial information is available to review revenue and margins at the customer level. Financial information is not available to facilitate the production of a product line income statement.

Based upon the foregoing, the Company has determined that it has one operating segment, as a common set of products and services transcend geographies, organizations, and markets and are managed at the enterprise level by the chief operating decision maker.

Form 10-Q for the Fiscal Quarter Ended March 31, 2006

Exhibits 31.1 and 31.2—Certifications Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

3. Note that the language of the certifications required by Item 601(b)(31) of Regulation S-K must be provided exactly as stated therein. See Release No. 34-46427 (Aug. 28, 2002) and the Division of Corporation Finance Staff Alert (Mar. 5, 2005) available on our website at www.sec.gov. Please confirm that Mr. Ahmed and Ms. Richstone signed these certifications in their individual capacity. In preparing future 302 certifications, please note that the language of the certification may not be altered in any manner. In this regard, you should not include the title of the office held by the signatory in the first line of the certifications.

Response:

In future filings, we will ensure the language required for the certifications is provided exactly as stated by Item 601(b)(31) of Regulation S-K, and the title of the office held by the signatory in the first line of the certifications is excluded.

Mr. Ahmed and Ms. Richstone have signed these certifications in their individual capacities.

Form 8-K filed on March 13, 2006

4. We note your presentation of condensed consolidated statements of operations under Item 9.01 of the Form 8-K noted above. We further note that you have excluded stock-based compensation from cost of revenues, gross profit and other operating expenses, with the result being that these amounts represent non-GAAP financial measures. Tell us what consideration you have given to including the disclosures required by Item 10(e)(1)(i)(C) and (D) of Regulation S-K and Question 8 of the FAQ Regarding the Use of Non-GAAP Financial Measures. At a minimum, tell us what consideration you gave to disclosing the substantive reasons why you believe that presentation of the non-GAAP financial measures provide useful information to investors and, to the extent material, the additional purposes(s) for which you use the non-GAAP financial measure. Such disclosures regarding the usefulness of the non-GAAP measures should separately address each of the measures created by your presentation. Please explain to us how you considered separately addressing these disclosure requirements for each non-GAAP measure in your current presentation.
5. Also, tell us what consideration you have given to including a quantitative reconciliation of the differences between each of the non-GAAP financial measures disclosed with the most directly comparable GAAP financial measure pursuant to 10(e)(1)(B) of Regulation S-K.

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Response:

Prior to the Company's adoption of SFAS 123(R) effective January 1, 2006, the Company disclosed the total compensation cost recognized in income for stock-based employee compensation awards as a single line item on the income statement. The Company further disclosed in a footnote on the face of the Consolidated Statements of Operations the amount of stock-based compensation attributable to the costs of revenues and for each operating expense line item.

The Company inadvertently excluded the disclosure detailing the amount of stock-based compensation attributable to the costs of revenues and for each operating expense line item for the periods in its press release and the Form 8-K filed on March 13, 2006. The Company respectfully requests of the Staff that the Company take no additional action to amend the Form 8-K at this time. The Company discontinued this practice in the first quarter of 2006 with the adoption of SFAS 123(R).

Management believed that the historical presentation of the stock-based compensation charges as a single line item provides useful information to investors considering the nature of the charges for the periods. The charges which were borne out of a cheap stock charge reported by the Company when completing its initial public offering were substantially larger for earlier years, approximately \$74 million for the year ended December 31, 2001 and steadily declined to approximately \$20 thousand (unrelated to cheap stock) the year ended December 31, 2005 under the accounting principle in effect for the periods (APB 25). By presenting this information as a single line item it provided substantial transparency into the Company's Statement of Operations for comparable periods. Cheap stock was viewed as an anomaly by management, a charge that while significant would not recur, rather would diminish over time. By combining these expenses with the other line items the true economic trends in the financial results may be obfuscated.

Subsequent to the adoption of SFAS 123(R), the Company discontinued the use of the single line item presentation and included the amount of stock-based compensation in each of the applicable line items on the face of the Consolidated Statements of Operations for both the current and prior periods.

Form 8-K filed on May 8, 2006

6. We believe the non-GAAP operating statement columnar format appearing in your Form 8-K may create the unwarranted impression to investors that the non-GAAP operating statement has been prepared under a comprehensive set of accounting rules or principles while also conveying undue prominence to a Statement based on non-GAAP measures. In addition, Section II.A.2 of SEC Release 33-8176 defines non-GAAP measures and does not contemplate including non-GAAP financial statements as a "measure." Please remove that presentation, or explain to us in reasonable detail why its retention is justified in light of these concerns. As a substitute for this presentation format, you may consider presenting only

individual non-GAAP measures (i.e., line items, subtotals, etc.) provided each one complies with Item 10 of Reg. S-K and the Division of Corporation Finance's Frequently Asked Questions Regarding Use of Non-GAAP Financial Measures, Question 8.

Response:

The Company will present only individual non-GAAP measures (i.e., line items, subtotals, etc.) complying with Item 10 of Reg. S-K and the Division of Corporation Finance's Frequently Asked Questions Regarding Use of Non-GAAP Financial Measures, Question 8 in future filings.

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Form 8-K filed on August 7, 2006

7. We note the disclosures in your Form 8-K dated August 7, 2006 regarding questions over back-dating of stock options. Please tell us the current status of your review and explain what consideration you have given to the accounting and disclosure implications of SFAS No. 5, "Accounting for Contingencies" and FIN 14, "Reasonable Estimation of the Amount of a Loss." In this regard, tell us what consideration you gave to including disclosure and discussion of this issue's potential impact on the qualification of the Company's stock option plan, claims or litigation by affected option and stockholders, and possible legal or regulatory action by the Internal Revenue Service or other regulatory bodies. Also tell us how you considered filing an Item 4.02 Form 8-K to address potential non-reliance on previously issued financial information.

Response:

The voluntary stock option review covers the facts, circumstances and timing of every stock option grant made since the Company's IPO in May of 2000 to the present. The Company's Audit Committee has retained the law firm Wilmer Cutler Pickering Hale and Dorr ("WilmerHale") and the forensic accounting group of PricewaterhouseCoopers LLP ("PWC"), as its advisors to assist in the review. The review has included the collection, search and review of hard copy and electronic documents covering the relevant years. The hard copy documents that have been collected include documents found in the Company's corporate offices, human resources department, legal department, stock administration department, finance department, and the files of Compensation Committee members. The electronic documents that have been collected include email files (including attachments) of relevant current and former employees and directors of the Company, including members of senior management.

More than 220 gigabytes of electronic data, including hard drives and shared server directories have been collected. The Company has also preserved all backup tapes (which contain a complete backup of emails and internal file servers). The Company has retained an electronic discovery vendor to load this data into a sophisticated database that will assist in identifying relevant information for further review. The Company established a list of search terms that included 149 separate searches that resulted in hits for over 174,000 separate documents.

WilmerHale and PWC have completed the review of the hard copy and electronic documents. They also have conducted interviews of current and former employees and directors of the Company, including members of the Compensation Committee, the Chief Executive Officer, the current and former General Counsel, the current and former Directors of Human Resources and other current and former employees in the finance and stock administration organizations.

The Chairman of the Company's Audit Committee has supervised the review and has received regular progress reports from WilmerHale and PWC. To ensure the independence of the investigation, the Audit Committee did not share any detailed information with management during the review. After the review had been substantially completed, WilmerHale and PWC provided a preliminary analysis of their findings to Mr. Cunningham. This preliminary analysis was then presented to Company management. The analysis covers the preliminary results of the review regarding the events underlying the Company's historical stock grant practices and the potential impact of those practices on the Company's historical reporting of its stock option grants.

After receiving the preliminary report, management is evaluating the relevant data to reach preliminary accounting conclusions on each of the grants to determine whether there is any discrepancy between the date the grant was recorded by the Company and the appropriate measurement date for accounting purposes. Management will then review its preliminary conclusions with the Audit Committee, its current auditors and, if appropriate, its former auditors. The Audit Committee and management will then determine whether any adjustments to stock-based compensation expense are necessary and whether any such adjustments are material to the Company's current and historical financial statements. At this time, the Company is engaged in the detailed evaluation of the facts in order to reach preliminary accounting conclusions. No conclusions have been reached at this time.

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In connection with the stock option review, the Company has assessed the accounting and disclosure implications of SFAS No.5, "Accounting for Contingencies" and FIN 14, "Reasonable Estimation of the Amount of a Loss." Currently, there are no regulatory actions and no litigation pending against the Company so the Company does not believe there are any implications under SFAS No. 5 or FIN 14. Similarly, the Company has preliminarily concluded that the stock option review does not impact the qualification of the Company's stock plan. As part of its stock option review, the Company is assessing any tax consequences. The Company has retained outside tax experts to assist the Company in this assessment. At this time, the Company has not reached any conclusions regarding any tax impact resulting from the stock option review or the need to establish a tax accrual. The Company will continue to assess the accounting and disclosure implications of SFAS No. 5 and FIN 14 as it completes its stock option review.

Because the Company has not yet concluded whether any adjustments to stock-based compensation expense are necessary and whether any such adjustments are material to current or historical financial statements, the Company has not yet determined the need for or the potential scope of a restatement of previously filed financial statements. As a result, the Company has not filed an Item 4.02 Form 8-K to address potential non-reliance on previously issued financial information. If the Company reaches such a conclusion, the Company will promptly file an Item 4.02 Form 8-K.

The Company has been, and continues to be, committed to providing its shareholders and the public with complete, timely and accurate financial information and to meeting its disclosure obligations. Consistent with that commitment, management voluntarily initiated a review of its historical stock option grants and accounting, brought its initial findings to the attention of its auditors and Audit Committee, and expanded its review to examine other stock option grants.

The Audit Committee also promptly took action to initiate a comprehensive review following receipt of management's preliminary findings and to retain experienced, independent advisors to assist with the review and associated accounting issues. The Company is working diligently and expending significant time and resources in order to complete a thorough and systematic review of its historical stock option practices and accounting. The Company will continue to be mindful of its reporting and disclosure obligations as it completes this process.

This letter also confirms that:

The Company is responsible for the adequacy and accuracy of the disclosures in the filings;

Staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and

The Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact me should you have any questions or concerns regarding this request at (978) 614-8224.

Sincerely,
Sonus Networks, Inc.

/s/ Paul K. McDermott

Paul K. McDermott
Vice President of Finance, Corporate Controller and Principal Accounting Officer