[SONUS NETWORKS, INC. LETTERHEAD]

VIA EDGAR

September 29, 2006

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street N.E. Washington, D.C. 20549

Attention: Kathleen Collins, Accounting Branch Chief

Dear Ms. Collins:

We are in receipt of your comment letter dated September 20, 2006 regarding the following Sonus Networks, Inc. filings:

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

We respectfully request an extension of ten business days to complete our response and review it with all the appropriate parties prior to submission to the Commission staff.

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

Sincerely, Sonus Networks, Inc.

/s/ Paul K. McDermott

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