



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 27, 2012

Via E-mail

Jean Bua, Chief Financial Officer
NetScout Systems, Inc.
310 Littleton Road
Westford, MA 01886

**Re: NetScout Systems, Inc.
Form 10-K for the Fiscal Year Ended March 31, 2011
Filed May 27, 2011
File No. 000-26251**

Dear Ms. Bua:

We have reviewed your response letter dated February 16, 2012 and have the following comments. If indicated, we think you should revise your document in response to these comments. After reviewing this information, we may raise additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated February 3, 2012.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended March 31, 2011

Part III (Incorporated by Reference from Schedule 14A Filed on July 26, 2011)

Compensation and Other Information Concerning Directors and Executive Officers, page 36

1. Consistent with your responses to prior comments 2 and 3, please amend your Form 10-K for the fiscal year ended March 31, 2011 to provide a revised executive compensation section with corrected summary and director compensation tables that value your restricted stock unit awards at fair market value on the grant date in accordance with FASB ASC Topic 718. Please also revise your Compensation Discussion and Analysis to incorporate your responses to prior comments 4 through 6 in describing your incentive-based compensation and equity awards.

Jean Bua
NetScout Systems, Inc.
March 27, 2012
Page 2

2. We note additionally that your shareholders provided advisory approval of the compensation disclosed in your proxy statement as reported in the Form 8-K filed September 13, 2011. In light of the substantial variance between the compensation disclosure provided to shareholders and the disclosure requirements of Regulation S-K, please provide your analysis of the effect of the shareholder vote and your views on whether it was an informed vote applicable to the compensation awarded. In your response letter please describe the steps, if any, you anticipate taking in this regard.

You may contact David Edgar, Staff Accountant, at (202) 551-3459 or Patrick Gilmore, Accounting Branch Chief, at (202) 551-3406 if you have questions regarding comments on the financial statements and related matters. If you have any other questions, please contact Edwin Kim, Staff Attorney, at (202) 551-3297 or me at (202) 551-3457.

Sincerely,

/s/ Maryse Mills-Apenteng

Maryse Mills-Apenteng
Special Counsel