

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

June 4, 2012

Via E-mail

Mr. Joseph P. Ciavarella Senior Vice President and Chief Financial Officer AboveNet, Inc. 360 Hamilton Avenue White Plains, NY 10601

Re: AboveNet, Inc.

Form 10-K for the fiscal year ended December 31, 2011

Filed February 29, 2012

Form 10-Q for the quarter ended March 31, 2012

Filed May 9, 2012 File No. 000-23269

Dear Mr. Ciavarella:

We have reviewed your response letter dated May 30, 2012 and your filings and have the following comment. Please provide us with the requested information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to this comment, we may have additional comments.

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

Note 17: Segment Reporting, page 98

1. We note your response to comment one in our letter dated May 21, 2012. It appears that your chief operating decision maker receives discrete financial information of your foreign operations. Therefore, please tell us why each of your foreign operations is not considered to be a reportable segment under ASC 280-10-50-10.

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Please file all correspondence over EDGAR. You may contact Dean Suehiro, Senior Staff Accountant, at (202) 551-3384 or Robert S. Littlepage, Accountant Branch Chief, at (202)

Mr. Joseph P. Ciavarella AboveNet, Inc. June 4, 2012 Page 2

551-3361 if you have questions regarding comments on the financial statements and related matters. Please contact Greg Dundas, Staff Attorney at (202) 551-3436 or me at (202) 551-3810 with any other questions.

Sincerely,

Robert S. Littlepage for

Larry Spirgel Assistant Director