



DIVISION OF
CORPORATION FINANCE

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

Via Fax (781) 221-5215

June 15, 2010

Mark P. Sullivan
SVP and Chief Financial Officer
Aspen Technology, Inc.
200 Wheeler Road
Burlington, MA 01083

**Re: Aspen Technology, Inc.
Form 10-K and 10-K/A for the Fiscal Year Ended June 30, 2009
Filed November 9, 2009 and April 22, 2010, respectively
Form 10-Q for Fiscal Quarter Ended December 31, 2009
Filed on February 9, 2010
File No. 000-24786**

Dear Mr. Sullivan:

We have reviewed your response letter dated May 27, 2010 in connection with the above-referenced filings and have the following comments. If indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may raise additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated May 13, 2010.

Form 10-K/A for the Fiscal Year Ended June 30, 2009

Item 11. Executive Compensation

Compensation Discussion and Analysis

2009 Operations Plan, page 18

1. In your response to prior comment 4, you briefly describe the “regional contribution margin” and “regional operating margin” targets used to determine the bonus payable to Mr. Kotzabasakis under the 2009 Operations Plan, and you provide these target amounts for fiscal 2009. In your response letter and future filings, please clarify which region(s) these metrics cover, and disclose actual achievement against the targets, in

each case to the extent material to an understanding of the company's compensation policies and procedures for its named executive officers.

Form 10-Q for the Fiscal Quarter Ended December 31, 2009

Condensed Consolidated Statements of Operations, page 2

2. Please provide us with your allocation of revenue for co-terminus arrangements through March 31, 2010. Additionally, please confirm that you will disclose your allocation methodology for these arrangements in future filings when they become material. Finally, please explain why the percentage of revenue allocated to services was only 4% of the total revenue recognized for co-terminus arrangements for the six months ended December 31, 2009. In this regard, please explain if this percentage differs at all in comparison to the percentage of services to total revenue for your legacy arrangements.

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. If you amend your filing(s), you may wish to provide us with marked copies of any amendment to expedite our review. Please furnish a cover letter that keys your response to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing any amendment and your response to our comments.

You may contact Melissa Feider, Staff Accountant, at (202) 551-3379 or me at (202) 551-3499 if you have any questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to Katherine Wray, Staff Attorney, at (202) 551-3483.

Sincerely,

Kathleen Collins
Accounting Branch Chief