



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3720

March 26, 2007

Jagdeep Singh
President and Chief Executive Officer
Infinera Corporation
169 Java Drive
Sunnyvale, CA 94089

**RE: Infinera Corporation
Registration Statement on Form S-1
Filed on February 26, 2007
File No. 333-140876**

Dear Mr. Singh:

We have reviewed your correspondence letter dated March 7, 2007 regarding your background summary to stock option pricing and have the following comments. Where 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 comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Critical Accounting Policies and Estimates

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1. With regard to your enterprise value allocation method, please tell us in more detail how you allocated the determined enterprise fair value to your different classes of stock, including your convertible preferred stock and common stock. We refer you to Chapter 10 of the AICPA Audit and Accounting Practice Aid Series "Valuation of Privately-Held-Company Equity Securities Issued as Compensation."
2. For stock options issued since January 1, 2006, please revise your disclosures to:
 - Discuss how you determined the fair value of your common stock at each grant date, including your determination of enterprise value and the valuation of convertible preferred versus common stock;

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- Identify and quantify each factor that contributed to the changes in fair value of common stock at each grant date; and
- Discuss the reasons for any variance between your common stock valuation and the expected initial public offering price.

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As appropriate, please amend your filing in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses 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 your amendment and responses to our comments.

You may contact Sharon Virga, Senior Staff Accountant, at (202) 551-3385 or Kyle Moffatt, Accountant Branch Chief, at (202) 551-3836, if you have any questions on these matters.

Sincerely,

Larry Spigel
Assistant Director

cc: via facsimile (650-493-6811)
Matthew Sonsini/Wilson Sonsini Goodrich & Rosati