

VIA EDGAR

August 10, 2010

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549
Attention: Matthew Crispino
Stephani Bouvet

**Re: Brocade Communications Systems, Inc.
Registration Statement on Form S-4
Filed June 18, 2010
File No. 333-167625**

Dear Ladies and Gentlemen:

On behalf of Brocade Communications Systems, Inc. ("**Brocade**" or the "**Company**"), we are responding to the comments received from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") by letter dated July 13, 2010 with respect to Brocade's Registration Statement on Form S-4 listed above (the "**Comments**"). For ease of reference, we have repeated the Staff's Comments, which are set forth below in italic type.

General

1. We note your pending request for confidential treatment in connection with portions of certain exhibits to your Form 10-Q for the Fiscal Quarter Ended May 1, 2010. We are currently processing this request and will issue comments to you in a separate letter. Please be advised that we will not declare the registration statement effective until all outstanding comments have been resolved.

RESPONSE: We acknowledge the Staff's comment.

Form S-4

Incorporation of Certain Documents by Reference, page 1

2. Please revise this section to specifically incorporate by reference the Forms 8-K filed on December 9, 2009 and January 4, 2010. Refer to part 1.B of Form S-4.

RESPONSE: In response to the Staff's comment, the disclosure has been revised to incorporate the Form 8-K filed on December 9, 2009 and the Form 8-K filed on January 4, 2010.

Market and Industry Data and Forecasts, page 3

3. You state that this prospectus contains market share and industry data and forecasts, which you have not independently verified nor ascertained the underlying economic assumptions. Please note that you are responsible for the entire content of the registration statement and should not include language that can be interpreted as a disclaimer of responsibility for information contained in the filing. Please revise to remove any implication that you are not responsible for assessing the reasonableness and soundness of the market data presented.

RESPONSE: In response to the Staff's comment, the disclosure on page 3 has been revised to confirm that Brocade believes the market data presented is reasonable and reliable.

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In addition, Brocade acknowledges that:

- Should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- The action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- Brocade may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please note that the Company recently moved to its new corporate headquarters at a new address. Going forward, please use the following address: 130 Holger Way, San Jose, CA 95134, and please use the following fax number: (408) 333-5630.

Please do not hesitate to call me at (408) 333-5547, or Tom MacMitchell at (408) 333-5833, or Nancy H. Wojtas, Cooley LLP at (650) 843-5819, if you have any questions or would like any additional information regarding this matter.

Sincerely,

Brocade Communications Systems, Inc.

By: /s/ Tyler Wall

Tyler Wall

Vice President, General Counsel, and Corporate Secretary

cc: Richard Deranleau
Tom MacMitchell, Esq.
Nancy H. Wojtas, Esq.