



DIVISION OF
CORPORATION FINANCE

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

July 13, 2010

Tyler Wall, Esq.
Vice President, General Counsel, Corporate Secretary
Brocade Communications Systems, Inc.
1745 Technology Drive
San Jose, CA 95110

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

Dear Mr. Wall:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where 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 registration statement and the information you provide in response to these comments, we may have additional comments.

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.

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 I.B of Form S-4.

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.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging 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
- the company 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 refer to Rule 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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You may contact Stephani Bouvet at (202) 551-3545 if you have any questions regarding the above comments. If you need further assistance, you may contact me at (202) 551-3456 with any other questions.

Sincerely,

Matthew Crispino
Attorney Advisor

cc: Via facsimile to: (650) 849-7400
Nancy H. Wojtas, Esq.
Cooley LLP