

Mail Stop 4561

January 29, 2010

Michael Klayko
Chief Executive Officer
Brocade Communications Systems, Inc.
1745 Technology Drive
San Jose, CA 95110

**Re: Brocade Communications Systems, Inc.
Form 10-K for Fiscal Year Ended October 31, 2009
Filed December 14, 2009
File No. 000-25601**

Dear Mr. Klayko:

We have reviewed the above-referenced filing 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 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. We note your pending request for confidential treatment in connection with portions of certain exhibits to your Form 10-K for Fiscal Year Ended October 31, 2009. We are currently processing this request and will issue comments to you in a separate letter.

Item 1. Business

Customers, page 7

2. We note that your Ethernet business includes a number of key customer markets, including the U.S. Government; and that, according to your risk factor on page 19, the loss from your more significant customers, such as the U.S. government could cause revenue and profitability to suffer. Please tell us what consideration you have given to including disclosure in your Business section regarding the portion of your business that may be subject to renegotiation or termination at the election of the government. See Item 101(c)(1)(ix) of Regulation S-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview, page 33

3. We note that in your Results of Operations section, you have identified and discussed certain risks and challenges associated with your business, including pricing pressure, ongoing pressure on gross margins, product transition, and risks associated with international operations. In future filings, consider including disclosure of this nature in your Overview section to provide a balanced, executive-level discussion of the most important themes or other significant matters with which management is primarily concerned in evaluating Brocade's financial condition and operating results. Refer to Section III.A of SEC Release No. 33-8350.

Liquidity

Senior Secured Credit Facility, page 49

4. We note your disclosure on page 86 that as of October 31, 2009, you were in compliance with all applicable covenants and restrictions related to your credit agreement. In future filings, please include a discussion of all material financial covenants in your credit agreement, including how the leverage and fixed charge ratios are defined.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures, page 108

5. While we note that your Chief Executive Officer and Chief Financial Officer concluded that your disclosure controls and procedures "were operating effectively," this effectiveness conclusion is stated in terms that do not conform

with the language set forth in Exchange Act Rule 13a-15(b). In your response letter, please tell us whether your Chief Executive Officer and Chief Financial Officer concluded that your disclosure controls and procedures were effective as of the end of the period covered by the report. Further, in your future filings, please clarify, if true, that your officers concluded that your disclosure controls and procedures are effective.

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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.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

Michael Klayko
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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) 551-3735.

Sincerely,

Barbara C. Jacobs
Assistant Director