

March 31, 2009

Via U.S. Mail and Facsimile (408-333-8101)

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 the Fiscal Year Ended October 25, 2008
Filed December 15, 2008
File No. 0-25601**

Dear Mr. Klayko:

We have limited our review of your filing to disclosure relating to your contacts with countries that have been identified as state sponsors of terrorism, and we have the following comments. Our review with respect to this issue does not preclude further review by the Assistant Director group with respect to other issues. At this juncture, we are asking you to provide us with supplemental information, so that we may better understand your disclosure. Please be as detailed as necessary in your response. 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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on 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 the disclosure on page 107 of your Form 10-K that you derive revenues from the Middle East and Africa, regions that include Iran, Syria, and Sudan. Also, it appears from several dropdown menus on your website that nationals of Cuba, Iran, Sudan, and/or Syria may use your website to make service action requests, register warranty or extended warranty services for certain of your products, request authorization to return material, and reserve spots for your future webcasts. Cuba, Iran, Sudan, and Syria are identified by the State Department as state sponsors of terrorism, and are subject to U.S. economic sanctions and export controls. We note that your Form 10-K does not include disclosure regarding contacts with Cuba, Iran, Sudan, and Syria. Please describe to us the nature and extent of your past, current, and anticipated contacts with the referenced countries, if any, whether through affiliates, distributors, resellers, or other direct or indirect arrangements. Your response should describe any products, equipment, components, technology, and services you have provided to

those countries, and any agreements, commercial arrangements, or other contacts you have had with the governments of those countries or entities controlled by those governments.

2. Please discuss the materiality of any contacts with Cuba, Iran, Sudan, and Syria described in response to the foregoing comment, and whether those contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any associated revenues, assets, and liabilities for the last three fiscal years and any subsequent period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. As you may be aware, various state and municipal governments, universities, and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. Your materiality analysis should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Cuba, Iran, Sudan, and Syria.

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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 your response letter on EDGAR.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filings include all information required under the 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 the 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

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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.

Please understand that we may have additional comments after we review your response to our comments. Please contact Pradip Bhaumik, Special Counsel, at (202) 551-3333 if you have any questions about the comments or our review. You may also contact me at (202) 551-3470.

Sincerely,

Cecilia Blye, Chief
Office of Global Security Risk

cc: Barbara Jacobs
Assistant Director
Division of Corporation Finance