



DIVISION OF  
CORPORATION FINANCE

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

May 24, 2011

Mr. Arthur Chadwick  
Chief Financial Officer  
Cavium Networks, Inc.  
805 East Middlefield Road  
Mountain View, CA 94043

**Re: Cavium Networks, Inc.**  
**Form 10-K for the fiscal year ended December 31, 2010**  
**Filed February 28, 2011**  
**File No. 001-33435**

Dear Mr. Chadwick:

We have completed our review of your filings. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. 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 the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

Brian Cascio  
Accounting Branch Chief