



DIVISION OF
CORPORATION FINANCE

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

September 9, 2010

Robert L. Howard-Anderson
Chief Executive Officer
Occam Networks, Inc.
6868 Cortona Drive
Santa Barbara, California 93117

Re: Occam Networks, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed February 24, 2010
File No. 001-33069

Dear Mr. Howard-Anderson:

We have reviewed your letter dated August 18, 2010 in connection with the above-referenced filing and have the following 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 within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If 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 filing and the information you provide in response to these comments, we may have additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated August 5, 2010.

Form 10-K for the fiscal year ended December 31, 2009

Executive Compensation and Related Information (Incorporated by Reference from the Definitive Proxy Statement filed on April 8, 2010)

Equity Incentive Compensation, page 38

1. We note your response to prior comment 5 that the “performance-based vesting milestones” for your named executive officers consisted of three targets – non-GAAP operating performance for the second half of 2009, non-GAAP operating performance for the fourth quarter of 2009, and the level of cash and cash

equivalents as of December 31, 2009. For performance measures used in determining executive compensation that are non-GAAP financial measures, please disclose how each non-GAAP financial measure is calculated from your audited financial statements. Refer to Instruction 5 to Item 402(b) of Regulation S-K. In addition, please provide a quantitative discussion of the terms of the necessary targets to be achieved in order for your executive officers to earn their equity incentive compensation. To the extent you believe that such disclosure is not required under Instruction 4 to Item 402(b) because it would result in competitive harm, please provide a detailed supplemental analysis supporting your conclusion. Please note that if you rely on Instruction 4 to omit performance targets, you must provide meaningful disclosure regarding the level of difficulty or likelihood of achieving such undisclosed target levels. Refer to Question 118.04 of our Regulation S-K Compliance and Disclosure Interpretations, available on our website.

Exhibits

2. We note your response to prior comment 12 that you do not believe that you are substantially dependent upon your contract manufacturers, such as AsteelFlash Group, because you control the technology and purchase primarily “off the shelf” components through the contract manufacturer from a variety of suppliers. Please provide supplemental support for the conclusion that you are not substantially dependent upon any of your agreements with AsteelFlash Group. For instance, please tell us the nature and extent of the provisions in any agreements with AsteelFlash Group. Tell us how long it would take you to find another contract manufacturer and the extent of the financial loss if you terminated this relationship. We note your disclosure on page 12 of the filing that although your products “could be redesigned to avoid using sole source suppliers, it would be expensive and time consuming to make such a change.”

You may contact Morgan Youngwood, Staff Accountant, at (202) 551-3479 if you have any questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to Jan Woo, Staff Attorney at (202) 551-3453 or Matt Crispino, Senior Staff Attorney at (202) 551-3456. Please contact me with any other questions at (202) 551-3730.

Sincerely,

Craig Wilson
Senior Assistant Chief Accountant