



DIVISION OF
CORPORATION FINANCE

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

July 6, 2012

Via E-mail

Scott Lang

Chairman of the Board, President and Chief Executive Officer

Silver Spring Networks, Inc.

555 Broadway Street

Redwood City, CA 94063

**Re: Silver Spring Networks, Inc.
Amendment No. 6 to Registration Statement on Form S-1
Filed June 14, 2012
File No. 333-175393**

Dear Mr. Lang:

We have reviewed your registration statement 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 by amending your registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

Prospectus Summary

1. We continue to note that the last paragraph of the "Overview" section of your prospectus summary continues to include three year revenue growth and first quarter over first quarter revenue growth data. Please balance this disclosure with your expectation that your revenues during the remaining three quarters in 2012 will be lower than the corresponding quarters in 2011.

Management's Discussion and Analysis

Three Months Ended March 31, 2012 and 2011, page 60; and Years Ended December 31, 2011, 2010 and 2009, page 64

2. We note the variances in your operating and net losses for the periods presented. Under separate captions, please expand your disclosure to clearly explain to investors the reasons for the variances in your operating and net losses for the periods presented. Also disclose any known material trends affecting your operating and net losses for the periods presented. Refer to Item 303(b) of Regulation S-K.

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 Rules 460 and 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.

Scott Lang
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Please contact Gabriel Eckstein, staff attorney, at (202) 551-3286, or Tim Buchmiller, reviewing attorney, at (202) 551-3635 with any questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz
Assistant Director

cc (via e-mail): Robert A. Freedman, Esq.
Fenwick & West LLP