



DIVISION OF
CORPORATION FINANCE

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

September 20, 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. 8 to Registration Statement on Form S-1
Filed September 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.

General

1. Please supplementally provide us with any written materials that you or anyone authorized to do so on your behalf provides in reliance on Section 5(d) of the Securities Act to potential investors that are qualified institutional buyers or institutional accredited investors. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

Prospectus Summary, page 1

Overview, page 1

2. We note your added disclosure regarding the analysis by IDC Energy Insights. Please file the consent as an exhibit as required by Securities Act Section 7. In addition,

regarding the Brattle Group disclosure on page 105, please tell us whether the data was prepared for your company or for the offering.

Item 16. Exhibits...., page II-4

3. Please file as an exhibit any agreements related to the shares that will be purchased by Foundation Capital or any of its affiliates in the concurrent private placement.

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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You may contact Eric Atallah, staff accountant, at (202) 551-3663 or Lynn Dicker, reviewing accountant, at (202) 551-3616 if you have questions regarding the financial statements and related matters. Please contact Gabriel Eckstein, staff attorney, at (202) 551-3286 or Tim Buchmiller, reviewing attorney, at (202) 551-3635 with any other questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz
Assistant Director

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