



DIVISION OF
CORPORATION FINANCE

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

August 3, 2011

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.
Registration Statement on Form S-1
Filed July 7, 2011
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.

Registration Statement on Form S-1

Graphics

1. We note the inclusion of graphics here and in the back of your prospectus. Please revise to remove all graphics of future products or those from which you do not derive a material amount of your revenue, such as those related to electric vehicles and consumer applications. In addition, you should revise to remove all text that is not necessary to explain your graphics.
2. Regarding the flowchart in the back of your prospectus, please provide a brief explanation to accompany the graphics explaining what you mean by "Silver Spring-enabled technology." The explanation should clearly distinguish between your product and a third-party product where you supply a component.

Prospectus Summary

Overview, page 1

3. We note your disclosure that your solutions include advanced metering, distribution automation and demand-side management. Please revise your prospectus summary to make clear which solutions account for a material portion of your revenues and which solutions are intended to be offered in the future. Please quantify to the extent practicable.
4. Revise the forepart of your summary to disclose your increasing yearly net and gross losses and your net and gross losses for the most recent interim period.
5. Please provide independent support for your statements here and in the Business section regarding your leadership position and best-in-class status. In addition, provide support for your disclosure in the second paragraph that the power grid is “one of the most significant elements of contemporary industrial infrastructure” and its benefits will “fundamentally transform the world’s relationship with energy.”
6. Refer to the last sentence of the first paragraph. It is unclear how the energy industry is comparable to the computing industry. Further, your analogy to the Internet and the computing industry suggests that your product has a comparable potential for growth. Please revise or clarify as appropriate.

Our Strategy, page 5

7. Please clarify what you mean by “enabling the internet of things” in the second paragraph on page 6 and elsewhere in your document.

Selected Risk Factors, page 6

8. The disclosure of your competitive strengths includes six key factors, followed by an explanation of their applicability to your business and strategy. Please provide similar disclosure of the key challenges facing your business rather than merely copying selected headings from the Risk Factors portion of your document.

Other Financial Measures, page 11

9. We note that the trend in your gross margin on billings has gone from negative to positive and that those margins have increased from 4% for the year ended December 31, 2009 to 29% for the three months ended March 31, 2011. In an appropriate location in your prospectus, please discuss and analyze the factors that are driving the increase in your gross margins on billings.

Risk Factors

Adverse publicity about, or consumer or political opposition..., page 18

10. Please disclose the nature of the inaccurate bill allegations and safety concerns in wireless communication technology.

Capitalization, page 38

11. Please revise to remove the caption relating to cash, cash equivalents and short-term investments from your presentation of capitalization.

Dilution, page 40

12. Please show us how you calculated the pro forma net tangible book value of \$(94.5) million as of March 31, 2010 presented in the second paragraph on page 40.

Management's Discussion and Analysis

Revenue, page 54

13. In this section and the section that immediately follows, please quantify the changes in revenue and billings so that your disclosure indicates the contributions from primary and other factors. Please be specific in disclosing which products and services are driving your revenues. Make similar disclosures for the yearly results beginning on page 58.

Operating Expenses, page 56

14. In an appropriate place in your document please provide additional disclosure regarding the \$2.5 million expense related to the warrant granted to the third party for the purpose of establishing a charitable foundation. For example, please disclose the reason for the warrant grant and why the charitable foundation is being established. Do you have a policy for donating to this or other charitable foundations?

Operating Expenses, page 61

15. We note that in 2009 you entered into a legal settlement. Please revise your discussion of operating expenses to disclose the nature and significant terms of your settled litigation.

Critical Accounting Policies and Estimates, page 70

Stock-Based Compensation, page 74

16. We note that in connection with estimating the fair value of each option grant you have used the historical and implied volatility of a peer group of publicly traded companies. Please describe to us in greater detail the nature of the comparable publicly traded companies you selected and the basis for your conclusion to select those companies. Discuss how you considered factors such as industry, stage of life cycle, size and financial leverage when selecting the comparable companies. Refer to paragraphs 718-10-55-36 and 37 of the FASB Accounting Standards Codification and Question 6 in SAB Topic 14.D.1.
17. As a related matter, please note that we will delay our final assessment of stock based compensation pending inclusion of the estimated IPO price in the filing.

Business

Our Opportunity, page 83

18. We note the consent regarding the disclosure attributed to Pike Research. For other industry and market statistics that you cite in your document, please tell us:
- how you confirmed that the data used in your registration statement reflects the most recent available information;
 - whether all of the data is publicly available;
 - whether you paid for the compilation of any of the data;
 - whether any data was prepared for your use in the registration statement; and
 - whether the authors of the data consented to your use of such data in the registration statement.

If you were affiliated with the preparation of any of the data, please ensure that your disclosure clearly indicates the nature of all such affiliations.

Enabling the Smart Grid: Fundamental to Addressing These Global Challenges, page 85

19. We note your reference to Metcalfe's law in relation to the value of the smart grid. It is unclear to us how Metcalfe's law would apply to the smart grid since every device, or node, on the smart grid is not intended to have the ability to access or communicate with every other device or node on the grid. Please advise.

Expand Internationally, page 91

20. With a view to disclosure, please tell us your basis for the statement in the first sentence that the smart grid has become a priority for utilities worldwide.

Intellectual Property, page 104

21. Please disclose the duration of your patents. Refer to Regulation S-K Item 101(c)(1)(iv).

Legal Proceedings, page 105

22. Please tell us, and disclose if appropriate, which proceeding is related to the \$1 million operating expense for the three months ended March 31, 2011 described in Note 14 to your financial statements on page F-40.

Executive Compensation

Compensation Program Design, page 115

23. Refer to the last full paragraph in this section. Please disclose where your short-term incentive awards and equity awards fell in relation to the median of the Competitive Data.

Corporate Performance Measures, page 118

24. You disclose in the last paragraph that the combination of cash and stock unit awards is determined by the Compensation Committee at its discretion. Please reconcile this with the disclosure in the last full paragraph on page 115 where you indicate that the mix between cash and equity is managed to reflect the practices of comparable publicly-traded companies.

Individual Performance Measures, page 119

25. Please disclose how you weigh individual performance measures in relation to corporate performance measures when determining the short-term incentive awards for your executive officers.
26. Please disclose whether and to what extent the individual performance measures were achieved.

Short-Term Incentive Award Decisions and Analysis, page 120

27. We note that you performed at a 55% achievement level. The amount in the table on page 120 under "Award Value" for Mr. Lang is less than 55% of the Target amount

disclosed in the table on page 125. In light of the Target amounts, please disclose how the award value was calculated for Mr. Lang and the other executive officers.

Equity Compensation, page 120

28. Regarding your disclosure in the last two sentences of the third paragraph on page 121, please disclose how these factors were considered both individually and in relation to one another when determining equity compensation.

Financial Statements, page F-1

29. Please update the financial statements as necessary. Refer to Rule 3-12 of Regulation S-X.

Note 1 – Description of Business and Summary of Significant Accounting Policies, page F-7

Revenue Recognition, page F-9

30. We note your disclosures on page F-10 that you “generally” do not recognize revenues until you have received customer confirmation that criteria specified in the customer agreement have been met. Please explain the circumstances in which you would recognize revenue prior to receiving customer confirmation. Revise your filing as necessary.

Product Warranty, page F-13

31. We note that for the quarter ended March 31, 2011, you reduced your warranty accrual by \$1.6 million to reflect updated product field reliability. To the extent that you made significant changes to your warranty accrual related to preexisting warranties, please provide separate disclosure of these changes in your warranty accrual. Refer to paragraph 460-10-50-8(c)(4) of the FASB Accounting Standards Codification.
32. We note from your disclosures on page F-10 that your customer arrangements contain penalty provisions. Please revise your disclosure to disclose in greater detail the nature of the penalties you may be required to pay. In addition, describe how your estimates of warranty costs incorporate future penalty payments you may be required to make.

Corporate Bonus Incentive Plan (Unaudited), page F-17

33. Please explain to us why the disclosures in this footnote are unaudited.

Note 6 – Convertible Preferred Stock and Preferred Stock Warrants, page F-26

Conversion Rights, page F-27

34. We note that you are presenting conversion of your preferred shares to common shares on a pro forma basis. If true, please revise your disclosures in this note to clearly explain that your preferred shares are subject to an automatic conversion provision upon completion of your initial public offering.

Exhibit 23.1

35. To the extent there is a delay in requesting effectiveness of your registration statement, or there is any change, other than typographical, made to the financial statements, or there have been intervening events since the prior filing that are material to the company, please provide a currently dated and signed consent from your independent accountants with your next amendment.

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
Silver Spring Networks, Inc.
August 3, 2011
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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 comments on 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.
Fenwick & West LLP