



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

Division of Corporation  
Finance

Mail Stop 4561

October 23, 2009

Kendall Larsen, Chief Executive Officer  
VirnetX Holding Corporation  
5615 Scotts Valley Drive, Suite 10  
Scotts Valley, California 95066

**Re: VirnetX Holding Corporation  
Registration Statement on Form S-3  
Filed September 25, 2009  
File No. 333-162145**

Dear Mr. Larsen:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form S-3

General

1. We refer to our comment letter dated October 13, 2009 relating to your application requesting confidential treatment of certain portions of Exhibit 10.1 to your Form 10-Q for fiscal quarter ended June 30, 2009, and note that we have received your written response dated October 22, 2009. Please be advised that your registration statement will not be declared effective until all issues relating to your confidential treatment request have been resolved.

2. We note that you identify yourself as a smaller reporting company on the cover page of your Form 10-K for the fiscal year ended on December 31, 2008, which you filed on March 31, 2009. We note further that the aggregate market value of the voting and non-voting common equity held by your non-affiliates as of the last date of your second fiscal quarter in 2008 exceeded \$123 million. Please provide us with your analysis as to whether your company qualified as an accelerated filer at the end of your last fiscal year. Further, please address in your analysis whether your Form 10-K was filed timely. Refer to Rule 12b-2 under the Exchange Act., Section III.E.1.d of SEC Release No. 33-8876 and Question 130.04 under our Exchange Act Rules Compliance and Disclosure Interpretations, available on our web site.

Use of Proceeds, page 21

3. We note your statement in this section that you intend to use all the net proceeds obtained from the private placement transaction to fund working capital purposes. Please expand your use of proceeds discussion to provide more specific information as to how you intend to allocate the proceeds of the transaction amongst your different business endeavors. For example, please disclose what portions of the proceeds you expect to dedicate to the Microsoft litigation, the development of GABRIEL technology or to other purposes. In your discussion, address how this allocation of proceeds might change if you receive less than the full amount of proceeds. Also, as the total proceeds that you may acquire through the private placement transaction substantially exceed your current assets and accumulated revenue, please address in the prospectus how you intend to manage this material increase in your assets. Consider including risk factor disclosure regarding the company's lack of experience in managing substantial amounts of cash. Finally, please revise your prospectus to address the dilutive effects on existing shareholders of the issuance of the common stock underlying the warrants. Please provide tabular disclosure showing the number of shares that might be issued upon the exercise of each series of warrants, the time frame during which each series of warrants can be exercised, and the effects of the issuance of the shares on existing shareholders' economic and percentage ownership. Please include appropriate risk factor disclosure.

Selling Security Holders, page 21

4. We note the following selling shareholders, which are non-reporting legal entities:
  - Capital Ventures International;
  - Ramius Enterprise Master Fund Ltd;

- RCG PB Ltd.; and
- Vestal Venture Capital.

Please confirm, if true, that these selling shareholders are neither registered broker-dealers nor affiliates of registered broker-dealers.

5. We refer to your selling security holders table on page 22 and note your disclosure that Ramius Advisors has voting control and investment discretion over the securities held by both Ramius Enterprise Master Fund Ltd. and RCG PB, Ltd. Given this fact, please advise why Ramius Advisors is not identified as the selling shareholder in the table.

Description of Warrants Issued in the Private Placement Transaction, page 28

6. Your use of the term “Effective Date” in this section to refer to something other than the effective date of the registration statement may be confusing to investors. Please revise.
7. Please add disclosure describing how you accounted for the various series of warrants.

Item 17. Undertakings, page 32

8. We note that you have included the undertaking related to Securities Act Rule 430B, although it appears that your document does not omit any of the information described in Rule 430B(a) or (b). Please confirm your understanding that this registration statement will rely on Rule 430B and not Rule 430C. If not, please revise to include the appropriate undertaking.

Item 16. Exhibits

Exhibit 5.1 Opinion of Orrick, Herrington & Sutcliffe LLP

9. We note the statement on page 1 of the opinion that counsel has not “independently established or verified any facts relevant to the opinion expressed herein, but [has] relied upon statements and representations of the Selling Stockholders and officers and other representatives of the Company and others.” It is inappropriate for counsel to assume, or to disclaim any duty to investigate, the material facts underlying its opinion or facts that are readily ascertainable. Please have counsel revise its opinion to address the material facts that underlie the opinion or explain why the disclaimer in the opinion is not inappropriate under state law. We also note that the final paragraph on page 2 of the opinion limits reliance upon the opinion to VirnetX Holding Corporation. Please have

counsel revise its opinion to omit any language limiting the ability of investors to rely upon the opinion.

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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 the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

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

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securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please direct any questions to Ryan Houseal, Attorney-Advisor, at (202) 551-3105 or, in his absence, to me at (202) 551-3456. If you require further assistance, you may contact Barbara C. Jacobs, Assistant Director, at (202) 551-3735.

Sincerely,

Matthew Crispino  
Staff Attorney

cc: Via Facsimile (650) 614-7401  
Lowell D. Ness, Esq.  
Orrick, Herrington & Sutcliffe LLP