ORRICK

December 9, 2009

Matthew Crispino Securities and Exchange Commission (Mail Stop 4561) 100 F Street, N.E. Washington, D.C. 20549

Re: VirnetX Holding Corporation (the "<u>Company</u>") Amendment No. 1 to the Registration Statement on Form S-3 (the "<u>Registration Statement</u>") Filed September 25, 2009 File No. 333-162145

Dear Mr. Crispino,

Please find, as set forth below, the Company's responses to the comment letter of the staff of the Securities and Exchange Commission (the "<u>Staff</u>") dated December 1, 2009 (the "<u>Staff Letter</u>"). Concurrent with delivering this letter, the Company has filed Amendment No. 2 to the Registration Statement on Form S-1 to Form S-3 (the "<u>Amendment No. 2</u>") on EDGAR. For the Staff's convenience, the Staff's comments from the Staff Letter are set forth in italics before each response and we have provided a marked copy of Amendment No. 2 showing changes from the previously filed version.

<u>General</u>

1. We have considered your response to prior comment 2. However, in accordance with Rule 12b-2 and related Staff guidance, you met the definition of "accelerated filer" as of the end of your 2008 fiscal year. Accordingly, you should have filed your 2008 Form 10-K by March 16, 2009. Since you did not file your Form 10-K until March 31, 2009, you are ineligible to use the Form S-3. See General Instruction I.A.3(b) of Form S-3. Please file an amendment on a registration form that you are eligible to use.

The Company notes the Staff's comments and has filed Amendment No. 2 on a Registration Statement on Form S-1.

Selling Security Holders, page 19

2.. We refer to our prior comment 4 and note your disclosure that Ramius Advisors, Ramius Enterprise, RCG PB, Ltd and Vestal Venture Capital are affiliates of registered broker dealers. Please tell us whether the shares held by these entities were purchased in the ordinary course of business and whether, at the time of purchase, the entities had any agreements or understanding, directly or indirectly, with any other person to distribute the shares.

The Company notes the Staff's comments and has included affirmative statements in the footnotes of Amendment No. 2 on pages 61 and 62 relating to Ramius Enterprise, RCG PB, Ltd, and Vestal Venture Capital that the shares held by these entities were purchased in the ordinary course of business and whether, at the time of purchase, the entities had any agreements or understanding, directly or indirectly with any other person to distribute the shares. We respectfully note to the Staff that Ramius Advisors did not purchase any shares in connection with the transaction, but in response to the Staff's comment, we have included language in the footnote on page 61 of the Amendment No. 2 that Ramius Advisors, at the time of purchase by Ramius Enterprise and RCG PB, did not have any agreement or understanding, directly, with any other person to distribute the shares held by Ramius Advisors and RCG PB.

fax 650-614-7401 www.orrick.com

3. As a related matter, please provide us with your analysis as to why you believe Ramius Advisors LLC is not the beneficial owner of the shares held by Ramius Enterprise and RCG PB Ltd. In this regard, we note that Ramius Advisors, as investment manager, has voting control and investment discretion over the shares held by Ramius Enterprise and RCG PB Ltd. See Exchange Act Rule 16a-1(a)(2).

As the Staff is aware, Item 7 of Form S-1 requires the Company to furnish the information required by Item 507 of Regulation S-K. As discussed further in Question 140.02 under the SEC's Regulation S-K Compliance and Disclosure Interpretations, the Company must identify in a registration statement the person or persons who have voting or investment control over the Company's securities that the entity owns. In that Question 140.02, the staff goes on to submit that a company is to use Rule 13d-3 by analogy to make the determination of who is to be included in the selling security holder table. The Section 13(d) rules generally attribute beneficial ownership to any person who has or shares voting or investment power over the issuer's securities.

In accordance with the Staff's comments to the Company dated October 23, 2009 regarding the Registration Statement, the Company included Ramius Advisors LLC in the Registration Statement selling security holder table, because it has, as the Staff notes, voting and investment discretion over the shares held by Ramius Enterprise and RCG PB Ltd.

As the Staff is aware, Rule 13d-4 of the Exchange Act provides that any person has the right to expressly declare in any statement filed, that the filing of such statement shall not be construed as an admission that such person is, for the purposes of Section 13(d) or 13(g) of the Exchange Act, the beneficial owner of any securities covered by the statement.

Once it is determined that a person is a beneficial owner using the Section 13(d) rules, a "pecuniary interest" test of beneficial ownership determines which securities holdings and transactions must be reported and are subject to short-swing profit liability. Under Exchange Act Rule 16a-1(a)(2), the term "beneficial owner" shall mean any person who, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares a direct or indirect pecuniary interest in the equity securities.

Ramius Advisors, LLC has advised the Company that it has disclaimed beneficial ownership of the Company's securities because Ramius Advisors, LLC does not have or share a direct or indirect pecuniary interest in the shares held by RCG PB, Ltd or Ramius Enterprise Master Fund Ltd. Accordingly, Ramius Advisors has disclaimed beneficial ownership of the Company's securities and the Company has reflected this disclaimer in the footnotes to the selling security holder table.

December 9, 2009 VirnetX Holding Corporation Page 3

Use of Proceeds, page 17

4. We refer to your revisions made in response to our prior comment 3. Please revise your disclosure to specify the approximate amount of the proceeds you intend to use for the Microsoft litigation, commercialization of your patented GABRIEL Connection Technology and your intellectual property portfolio, and towards the establishment of the exclusive secure domain name registry in the United States and other markets. See Item 504 of Regulation S-K. Also, considering your statement that if you are unsuccessful in the Microsoft litigation you may not survive, please revise your disclosure to provide quantitative data regarding the deficiency in the amount of anticipated proceeds from this offering that will require you to obtain funds from additional sources.

The Company respectfully notes the Staff's comment and has revised the disclosure in Amendment No. 2 on page 21 to discuss, in accordance with Item 504 of Regulation S-K, (i) the approximate allocation of the proceeds between each purpose for which the net proceeds to the Company from the securities to be offered are intended to be used, and (ii) enhanced discussion of the Company's liquidity position and the fact that the Company's cash and cash equivalents, a figure which includes the proceeds generated from the initial sale of shares of the Company's common stock, are not currently sufficient to fund our operations through April 2010.

Please let us know if you have any questions on the foregoing.

Very truly yours,

<u>/s/ Lowell D. Ness</u> Lowell D. Ness Orrick, Herrington & Sutcliffe LLP

cc: Ryan Houseal (U.S. Securities and Exchange Commission) Kendall Larsen (VirnetX Holding Corporation)