

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

Division of Corporation Finance

Mail Stop 4561

December 1, 2009

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

Re: VirnetX Holding Corporation

Amendment No. 1 to Registration Statement on Form S-3

Filed November 6, 2009 File No. 333-162145

Dear Mr. Larsen:

We have reviewed the above-referenced filing and the related response letter dated November 6, 2009 and have the following comments. If indicated, we think you should revise your document in response to these comments. After reviewing this information, we may raise additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated October 23, 2009.

General

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.

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.

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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).

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.

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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