

Mail Stop 4561

July 1, 2008

Kendall Larsen
Chief Executive Officer
VirnetX, Inc.
5615 Scotts Valley Drive, Suite 110
Scotts Valley, CA 95066

**Re: VirnetX Holding Corporation
Amd. No. 1 to Form S-3 on Form S-1
Filed June 27, 2008
File No. 333-149884**

Dear Mr. Larsen:

We have reviewed your amended filing and have the following comments.

Form S-1/A

Cover Page

1. We note your response to comment 3 of our letter dated April 29, 2008. Please remove the reference to registration statement no. 222-149884 as the prospectus appears to be referring to itself. Please revise your reference to registration statement no. 333-145765 to indicate the number of shares that have yet to be sold off that previously effective registration statement.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 16

2. Please expand your discussion in this section to address your financial condition, changes in financial condition and results of operations for the two-year period covered by your audited financial statements. See Instruction 1 to Item 303(a) of Regulation S-K.

Selling Security Holders, page 38

3. We note your response to comment 5 of our letter dated April 29, 2008. Please expand your description of how each selling stockholder acquired the shares that are being registered for resale to disclose the material terms of each transaction, including the dates of the transactions in which the stockholders received their shares, the number of shares received in each transaction, and the price or value of the shares received.

Where You Can Find More Information, page 49

4. Please correct the address for the SEC. Our current address is 100 F Street, NE, Washington, DC 20549.

Part II

Item 17. Undertakings, page II-2

5. Please revise paragraph (a) of this section to remove the proviso from Item 512(a)(1)(iii)(B) of Regulation S-K as the proviso does not apply to registration statements on Form S-1. Also, it does not appear that Items 512(a)(6) or (b) of Regulation S-K are applicable to this transaction. Please advise.

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As appropriate, please amend your registration statement in response to our comments. Your responsive amendment should also include a marked copy of the amended filing that conforms with the provisions of Rule 310 of Regulation S-T. Marked copies such as those in HTML format that show changes within paragraphs help us to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments. 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 direct your attention to Rule 460 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.

Kendall Larsen
VirnetX, Inc.
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You may contact Matt Crispino at (202) 551-3456 or Jay Ingram at (202) 551-3397 if you have questions. If you require further assistance, please contact me at (202) 551-3735.

Sincerely,

Barbara C. Jacobs
Assistant Director

cc: Via Facsimile: (415) 773-5759
Lowell D. Ness, Esq.
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