

Mail Stop 4561

May 27, 2010

Stephen J. Wiehe, President and Chief Executive Officer
SciQuest, Inc.
6501 Weston Parkway, Suite 200
Cary, North Carolina 27513

**Re: SciQuest, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed May 11, 2010
File No. 333-165720**

Dear Mr. Wiehe:

We have reviewed the above-referenced filing and the related response letter dated May 11, 2010 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 April 22, 2010.

Summary Financial Data, page 6

1. Refer to footnote (4) on page 9 where you refer to Free Cash Flow as a measure of operating performance. We note that you have provided a reconciliation of this measure to net cash provided by operating activities and that the measure assists you "in assessing the company's ability to fund its growth through its generation of cash." Explain why you believe that this measure is useful as a performance measure when it excludes the results of accrual accounting. Indicate why you do not include limitations on its usefulness resulting from the numerous adjustments to net income. If Free Cash Flow is used as a performance measure, you should provide reconciliation to the most directly comparable GAAP performance measure, generally net income (loss).

Risk Factors

Risk Related to Our Business and Industry

Our customers are concentrated in our targeted vertical markets, which could make us vulnerable, page 13

2. We refer to your response and related revisions made in connection with prior comment 5 and note the importance of the higher education market. It appears that you have not discussed the material risks related to the higher education market. To the extent that there are any risks that are related to this market, please discuss them in this risk factor.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview, page 38

3. We note your added disclosure regarding the importance of the healthcare and state and local government markets to your future revenue growth. We also note your statement that "maintaining and managing revenue growth is a primary operating focus" for you. Please tell us whether you considered providing a brief discussion of how you intend to grow your future revenues by way of the healthcare and state and local government markets, the risks associated with those plans and the material effects, if any, that the failure to grow your revenue by way of those markets would have on your operations. Please refer to prior comments 5 and 8. In addition, for each of the periods presented, please disclose the amounts of revenue recognized in each of your vertical markets.

Critical Accounting Policies

Stock-Based Compensation, pages 42 – 47

4. We note your response to prior comment 12 and that you will address our comment in subsequent amendments. In the interim, revise your disclosure to identify the significant reasons for the changes in the company equity value under both the initial public offering and the sale scenarios between the January 2010 and the April 2010 grants. In this regard, explain in reasonable detail the factors and assumptions that changed between these two dates.

Liquidity

Net Cash Flows from Operating Activities, page 56

5. We note your expanded disclosure in response to prior comment 15. While you have identified the primary drivers and other material factors necessary for understanding your operating cash flows, you have not quantified these drivers, as was requested in our comment. Please revise to provide quantification of the primary drivers of cash flows in each period presented or explain why you believe a description of the drivers, excluding the associated amounts, assists investors in understanding your cash flows.
6. With a view to providing a better understanding of your operating cash flows, expand your discussion of the timing of cash payments from your customers to include a discussion of information consistent with that provided in response to prior comment 38.

Executive Compensation

Compensation Discussion and Analysis, page 80

7. In your response to prior comment 22, you state that as part of its review of your compensation program, your compensation committee has determined that your compensation program is “not likely to have a material adverse effect” on you. Please supplementally describe for us the aspects of your compensation program that led your compensation committee to reach this conclusion.

Annual Bonuses, page 82

8. We refer to the revisions made in response to prior comments 7 and 9 where you state that the non-GAAP measures “Adjusted EBITDA” and “Adjusted Free Cash Flow” are used as operating performance measures. Please revise to clarify whether the performance measures used in determining the amount of annual bonus awards made to your executive officers are the same as these non-GAAP financial measures. In this regard, we note your disclosure on page 82 that target bonuses are determined based on attainment of “targeted EBITDA” and “targeted cash generation.”
9. We refer to your response to prior comment 27. Please provide us with your analysis as to why you have concluded that your current disclosure with respect to the performance targets relating to the annual bonuses for Mr. Wiehe and Ms. Kaelin is sufficient.

Other Compensation, page 85

10. We refer to prior comment 31 regarding your cancellation of the notes in March 2010 for indebtedness relating to your executive officers' purchase of restricted stock. You state that the indebtedness was forgiven in part to comply with the Sarbanes-Oxley Act and "in part for other reasons that justified these recipients not paying the purchase price for these restricted stock awards." Please describe for us the "other reasons" that justified the forgiveness of the indebtedness. See Item 402(b)(1) of Regulation S-K.

Certain Relationships and Related Party Transactions, page 95

11. We refer to the disclosure included in response to our prior comment 18 regarding your agreement with SunGard Availability Services, LP pursuant to which SunGard will provide you with hosting and network services relating to your data center facilities. We note that your chief executive officer served as "Managing Director/Europe and Senior Executive Vice President for SunGard Treasury Systems, a division of SunGard Data Systems, Inc." Please tell us when you began your relationship with SunGard Availability Services, LP and describe for us the relationship, if any, between SunGard Availability Services, LP and SunGard Treasury Systems. Also, tell us whether Mr. Wiehe currently has any relationship with any of the SunGard entities and whether he had any such relationship at the time you entered into the Master Agreement for Availability Services with SunGard Availability Services, LP.

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You may contact Tamara J. Tangen, Staff Accountant, at (202) 551-3443 or, in her absence, Stephen G. Krikorian, Accounting Branch Chief at (202) 551-3488 if you have questions regarding comments on the financial statements and related matters. Please contact Ryan Houseal, Attorney-Advisor at (202) 551-3105 or me at (202) 551-3735 with any other questions.

Sincerely,

Barbara C. Jacobs
Assistant Director

cc: Via Facsimile: (404) 365-9532
Grant W. Collingsworth, Esq.
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