

Mail Stop 4561

September 8, 2006

Mr. Kevin A. DeNuccio  
Chief Executive Officer and President  
Redback Networks Inc.  
300 Holger Way  
San Jose, CA 95134

**Re: Redback Networks Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2005  
Form 10-Q for the Quarterly Period Ended March 31, 2006  
Form 10-Q for the Quarterly Period Ended June 30, 2006  
File No. 000-30961**

Dear Mr. DeNuccio:

We have reviewed the above-referenced filings and have the following comments. Please note that we have limited our review to the matters addressed in the comments below. We may ask you to provide us with supplemental information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2005

Item 7. Management Discussion and Analysis of Financial Condition and Results of Operations

Years Ended December 31, 2005 and 2004

Total Revenue, page 33

1. We note your disclosure which states the increase in SmartEdge product revenue and service revenue in fiscal year 2005 primarily resulted from greater sales volume. Tell us whether your sales were also positively or negatively impacted by changes in the price charged for your SmartEdge products. If so, tell us your consideration of quantifying the

extent to which the increase in revenues is attributable to both increases in prices and volume. We refer you to the guidance in Regulation S-K, Item 303(A)(3)(iii). In addition, we note your disclosure on page 38 which states that the average selling price of the SmartEdge systems is generally lower than SMS systems. Tell us your consideration of disclosing the pricing pressure that caused you to lower the average selling price of SmartEdge products as compared to the SMS systems.

Gross Profit, page 34

2. Your disclosure states the year over year improvement in your gross margin was attributable, in part, to improved margin on SmartEdge products. Tell us your consideration for disclosing the reason(s) SmartEdge product gross margins increased. Your disclosure should not only identify such increases, but should also analyze the reasons underlying the increase. We refer you to SEC Release 33-8350, Section III.B.4.
3. We note your discussion of both product gross profit and service gross profit excluding amortization. In accordance with SAB Topic 11(B), although amortization may be excluded from cost of revenues with parenthetical disclosure, amortization should not be excluded from measures of gross profit. Tell us what consideration you gave to including amortization expense in your computation and discussion of product and service gross profit.

Note 2. Organization and Summary of Significant Accounting Policies

Revenue Recognition, page 60

4. We note your disclosure indicating that some of your products contain software that is more than incidental to the hardware product as a whole. Clarify which products contain software that is more than incidental to your products and which products do not. In this respect, please clarify whether the software contained in your SmartEdge products is more than incidental to the product as a whole. Please provide a complete analysis supporting your conclusion pursuant to the guidance of SOP 97-2, paragraph 2 (including footnote 2). As part of your response, please clarify the nature of the services provided in your maintenance contracts and whether your maintenance contracts provide rights to unspecified upgrades or enhancements to your software. In addition, we note from your disclosure on page 63 that you incur costs within the scope of SFAS 86. Clarify the amount of costs incurred in fiscal year 2005 and the first six months of 2006.
5. Please clarify the following with respect to your sales arrangements within the scope of SOP 97-2, as amended:
  - For software arrangements that contain a separate hardware element and/or hardware-related services, tell us your consideration of EITF 03-5 to determine whether

software is essential to the functionality of the hardware and hardware-related services and, hence, in the scope of SOP 97-2. In this regard, explain the nature of your service maintenance contracts.

- For arrangements that contain multiple elements, identify each element and tell us whether you have established vendor-specific objective evidence (VSOE) of fair value to allocate value to the elements in the arrangement pursuant to paragraph 10 of SOP 97-2. In this respect, tell us whether your software arrangements contain undelivered elements for which you have not established VSOE of fair value. In addition, if you have established VSOE of fair value of the undelivered elements, clarify how your policy complies with paragraphs 10 and 57 of SOP 97-2. Tell us what consideration you gave to disclosing your policy for allocating the value of multiple-element software arrangements.
6. Your disclosure indicates you recognize revenue, in part, when your arrangement fee is fixed or determinable. Clarify how you have met the fixed or determinable criteria of paragraphs 26 through 29 of SOP 97-2. We further note you sell your products to resellers and distributors based on your disclosure on page 11. For such sales, clarify how you have met the criteria of paragraph 30 of SOP 97-2. As part of your response, tell us whether your arrangements contain rights of return, rights to refunds and/or price protection provisions. Note, this comment also applies to your arrangements that are not in the scope of SOP 97-2. We refer you to SAB Topic 13, Section A.1 (including footnote 5). Tell us what consideration you gave to disclosing your policy for recognizing revenue from sales through third party resellers and distributors.
  7. We note you have deferred product revenue as of December 31, 2005, March 31, 2006 and June 30, 2006. Further describe the specific reason(s) you are required to defer recognition of your product revenue at each of these balance sheet dates. For example, we note from your disclosure on page 29 of your Form 10-Q for the period ended June 30, 2006 that you have contracts that contain revenue recognition milestones related to new features or products. Also, further explain any acceptance or other contractual provisions in your arrangements that require you to defer revenue.
  8. We note you defer costs of revenue when you defer revenue. Tell us the type of costs you defer and the accounting literature you apply to expense cost of revenue. If you defer incremental direct costs, tell us how your policy complies with SAB Topic 13, Section 3.A.f, Question 5. Clarify whether you expense all the deferred cost of revenue as your product revenue is recognized or whether you allocate a portion of the expense to your maintenance revenue.

9. We note you accreted the deemed dividend resulting from the beneficial conversion feature through September 30, 2004. Clarify how you determined it was appropriate to accrete the discount through September 30, 2004 and how your accounting complies with Issue 6 of EITF 00-27 (including paragraphs 19 through 22).

Note 11. Stockholders' Equity (Deficit), page 76

10. We note in connection with your emergence from Chapter 11 bankruptcy, all of the outstanding stock options as of December 31, 2003 were cancelled and new options were granted on January 3, 2004. We further note your disclosure on page 41, which states, "[d]ue to the stock price on the last trading day of the year (December 31, 2003), there was no stock-based compensation recorded for the voluntary stock option replacement program." Explain why you did not record any expense for the stock option replacement program. In addition, tell us whether the voluntary stock option replacement program resulted in variable accounting. Clarify how your accounting complies with paragraphs 45, 46, 53 and 54 of FIN 44.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures, page 83

11. We note your disclosure with respect to your evaluation of the design of your disclosure controls and procedures. However, based on this disclosure, it is unclear whether your Chief Executive Officer and Chief Financial Officer concluded that your disclosure controls and procedures are effective as of December 31, 2005. Please tell us the conclusions reached by your Chief Executive Officer and Chief Financial Officer on the effectiveness of your disclosure controls and procedures. The conclusion reached should not be qualified and should state either that the controls are effective or not effective.
12. In addition, please tell us whether your Chief Executive Officer and Chief Financial Officer concluded that your disclosure controls and procedures were effective based upon the full definition contained in Rule 13a-15(e). That is, tell us whether your officers concluded that your disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports that you file or submit under the Exchange Act is also accumulated and communicated to your management, including your Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

13. Your disclosure on page 9 indicates you apply the “multi-grant approach” to recognize stock-based compensation pursuant to SFAS 123R. Please clarify how you define the multi-grant approach. In addition, tell us how recording compensation expense in this manner complies with SFAS 123R.

Note 5. Income Taxes, page 13

14. We note your disclosure with respect to your provision for income taxes for the first six months of fiscal year 2006. Clarify how the determination of income tax for the first six months of fiscal year 2006 complies with FASB Interpretation No. 18. In addition, tell us whether you also recorded the tax effects of nondeductible amortization charges related to intangible assets in fiscal year 2004 and 2005. Tell us how your accounting for the deferred tax impact of nondeductible goodwill complies with paragraph 41 of SFAS 142.

Note 10. Commitments and Contingencies

Stock Option Inquiry, page 17

15. We note your disclosure with respect to your stock option grant practices. Clarify how you determined there is no material accounting or tax impact relating to these stock option grants on your financial statements and that it is not necessary to report the change as a correction of an error pursuant to paragraph 25 of SFAS 154. As part of your response, please provide a complete SAB 99 analysis that supports your conclusion that the impact on your financial statements for periods prior and subsequent to your emergence from bankruptcy is not material. In this respect, clarify how you determined a \$0.2 million error is not material to your loss before provision for income taxes of \$0.5 million for the quarter ended June 30, 2006 and how you considered the provisions of paragraph 29 of APB 28 when making this conclusion. In addition, your disclosure indicates your conclusion with respect to the impact on your pre-emergence financial statements is based on the total error of \$110 million compared to your cumulative net losses of \$5.4 billion. Clarify why you believe it is appropriate to evaluate this error on an aggregate basis. Clarify whether the error would have been material to any individual fiscal year. In addition, clarify the impact of the error on your fresh-start adjustments, if applicable.

16. We note your use of non-GAAP financial measures in the Form 8-Ks noted above. Please address the following comments with respect to your use of non-GAAP financial measures:

- We believe the non-GAAP operating statement columnar format appearing in your Form 8-Ks may create the unwarranted impression to investors that the non-GAAP operating statement has been prepared under a comprehensive set of accounting rules or principles while also conveying undue prominence to a statement based on non-GAAP measures. In addition, Section II.A.2 of SEC Release 33-8176 defines non-GAAP measures and does not contemplate including non-GAAP financial statements as a “measure.” Please remove that presentation, or explain to us in reasonable detail why its retention is justified in light of these concerns. As a substitute for this presentation format, you may consider presenting only individual non-GAAP measures (i.e., line items, subtotals, etc.) provided each one complies with Item 10 of Regulation S-K and the Division of Corporation Finance’s Frequently Asked Questions Regarding Use of Non-GAAP Financial Measures, Question 8.
- Clarify whether you reasonably believe it is probable that the financial impact of your non-GAAP measures will become immaterial within a near-finite period. In addition, tell us why you believe that it is permissible to eliminate the impact of recurring charges as you have a past pattern of incurring such charges. We refer you to Questions 8 and 9 of the Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures.
- Your disclosure indicates your non-GAAP financial measures exclude certain items that are not indicative of your “core business.” Explain why you believe that your core business does not include the expenses and losses that are excluded from your non-GAAP results, when such items generally represent recurring expenses that result from your operating activities. Address why you believe that excluding certain non-cash charges is a proper reflection of your core business. Address why the non-GAAP measure includes the revenues but not all the cost associated with generating that revenue. Describe the economic substance behind management’s decision to use each non-GAAP measure presented that excludes these non-cash charges.
- It appears you eliminate stock-based compensation from your various operating expenses. It is not clear how management uses this non-GAAP information to conduct or evaluate its business in each of the areas of operations (i.e. research and development, selling, general and administrative, etc.). Stock based compensation is a form of compensation similar to cash and is viewed as compensation by the recipients. If this form of compensation was removed from the recipient’s overall compensation package, then how does management determine that an employee’s performance would remain unchanged such that it would not affect the Company’s overall operations? For instance, would the performance of an employee responsible

for sales and marketing be changed if a portion of his or her compensation package were eliminated? If so, then why would management exclude this compensation in analyzing your business performance?

17. We note your disclosure of net income and pre-tax net income excluding stock-based compensation in your Form 8-Ks referenced above. Tell us what consideration you gave to including the disclosure requirements of Item 10(e)(1) of Regulation S-K and the guidance set forth in the Division of Corporation Finance's Frequently Asked Questions Regarding Use of Non-GAAP Financial Measures issued in June 2003 and SAB Topic 14G.

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As appropriate, please amend your filings and respond to these comments within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. You may wish to provide us with marked copies of any amendment to expedite our review. Please furnish a cover letter with any amendment that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing any amendment and your 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 Exchange Act of 1934 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments 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 our review of your filing or in response to our comments on your filing.

Mr. Kevin A. De Nuccio  
Redback Networks Inc.  
September 8, 2006  
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You may contact Christopher White, Staff Accountant, at (202) 551-3461, Melissa Walsh, Senior Staff Accountant, at (202) 551-3224 or me at (202) 551-3488 if you have any questions regarding our comments on the financial statements and related matters.

Sincerely,

Stephen Krikorian  
Accounting Branch Chief