



DIVISION OF  
CORPORATION FINANCE

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

April 4, 2013

Via E-Mail

Ken Reali  
Chief Executive Officer  
TranS1 Inc.  
110 Horizon Drive  
Suite 230  
Raleigh, NC 27615

**Re: TranS1 Inc.  
Preliminary Proxy Statement on Schedule 14A  
Filed March 8, 2013  
File No. 001-33744**

Dear Mr. Reali:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is required, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

General

1. Rule 14a-4(a)(3) of Regulation 14A requires that the form of proxy "identify clearly and impartially each separate matter intended to be acted upon, whether or not related to or conditioned on the approval of other matters." Rule 14a-4(b)(1) further requires that the form of proxy provide separate boxes for shareholders to choose between approval,

disapproval or abstention “with respect to each separate matter referred to therein as intended to be acted upon.” It appears that the merger and private placement are separate matters upon which you must give shareholders an opportunity to vote. Please revise to present the merger and private placement as two separate proposals throughout your proxy statement and proxy card. In addition, if the merger and private placement are each conditioned on approval of the other, please disclose this prominently.

#### Cover Page

2. Please disclose on your cover page the formula you will use to calculate the number of shares to be issued as consideration for the merger. In addition, please describe here and throughout your document the result you are attempting to achieve through the merger consideration and concurrent private placement. For example, is it your goal to ensure a particular percentage ownership of the resulting company for certain groups or individuals, or a certain financial outcome?

#### Summary, page 8

3. Please treat your question and answer and summary sections as one and eliminate repetitive disclosure.
4. Please revise your summary to highlight Baxano’s liquidity situation. Include the going concern opinion from Baxano’s independent registered public accounting firm, its accumulated deficit and its belief that its existing cash and cash equivalents will be sufficient only to meet its cash needs through the first quarter of 2013. Also add an appropriate risk factor.

#### Interests of Certain Persons, page 11

5. Revise to quantify the benefits that will accrue to each affiliated person in the merger. For example, if any person holds debt that will be repaid, state that clearly here and quantify. In addition, if the private placement consideration is different from the value applied to your stock in the merger, please quantify the value of that difference to each affiliated purchaser in the private placement. Please also include disclosure of the percentage holdings of each affiliated person before and after the merger.

#### Background of the Merger, page 36

6. Please provide greater specificity regarding the reasons for the merger. For example, what about yours and Baxano's financial status kept you from pursuing a transaction in 2010 as disclosed on page 36?
7. Please disclose whether you considered other acquisition targets or transactions during your deliberations regarding strategies to regain revenue growth. If not, address how the Board's recommendation reflects the fact that your deliberations only considered a transaction with Baxano.

Reasons for the Merger, page 38

8. What is the basis for your assertion on page 38 that acquiring Baxano may improve your margins and shorten the expected timeline to achieve breakeven cash flow? Please explain how your board considered Baxano's financial performance, financial condition, and operations in reaching its decision to approve the merger agreement. Also describe what you mean on page 40 by Baxano's inability to consummate a financing transaction after an extensive fundraising process.

Opinion of Financial Advisor – Stifel, Nicolaus & Company, Incorporated, page 41

9. Please send us copies of the board books and any other materials provided by the financial advisors to assist the Board of Directors in evaluating the transaction. Also provide us a copy of the engagement letters. Finally, provide copies of any financial projections used in preparing the fairness opinions or provided by either party to the other.
10. We note the statement in the last paragraph on page C-3 regarding Stifel's prior written consent. If true, please disclose that Stifel has consented to the use of its opinion in this document and to your summary of the opinion as it appears in your proxy statement.

Management after the Merger, page 48

11. Please clarify what you mean by the term "initial" in this section. Also, in an appropriate section of your document, please disclose who will be your officers and directors following the merger.

Representations and Warranties, page 50

12. We note your disclosure in the first paragraph under this heading. Because the representations in your agreements constitute public disclosure, if there are more recent, material developments that the company is aware of, you must disclose them. Please revise as appropriate.

Allocation of Merger Consideration, page 50

13. Your disclosure in this section seems to indicate that you expect holders of Baxano Series C Preferred Stock to participate in the merger proceeds. Please clarify how Baxano's agreement to issue Baxano Notes for not less than \$500,000, as disclosed on page 59, would affect Series C participation in the merger proceeds, if at all.

Interests of Certain Persons, page 69

14. Refer to your disclosure on page 68 regarding your sale of 7,543,938 shares of your common stock pursuant to a private placement. We note your disclosure that Baxano's securityholders are expected to purchase an aggregate of 6,729,909 shares of common stock in the private placement transaction, while certain directors and officers are expected to purchase an aggregate 145,171 shares. Please clarify who is purchasing the remaining 668,858 shares. In this regard, also revise your definition of the term "Investors" on page 71 given that there are no investors identified on the signature pages to your securities purchase agreement.

Golden Parachute Compensation, page 69

15. We note that you have not included an advisory vote regarding the Regulation S-K Item 402(t) disclosure included on this page. Please include such a vote or advise why you have not done so.

Unaudited Pro Forma Condensed Combined Balance Sheet, page 72

16. Please revise pro forma adjustment (f) so equity changes are presented on a gross basis, or provide a more detailed explanation of the components of the equity section adjustments in the notes to the pro forma statements. For example, it appears these adjustments also reflect the conversion of the notes payable and expenses of the transaction described in other footnotes.

Unaudited Pro Forma Condensed Combined Statements of Operations, page 73

17. We note the pro forma adjustment for shares outstanding includes shares issued for general corporate purposes. Please revise this presentation to exclude the shares associated with the Private Placement Transaction. If you consider this information useful, you may present it in the footnote or, if on the face of the pro forma income statement, labeled appropriately as additional EPS data reflecting the issuance of all shares.

Note 2 – Basis of Presentation, page 75

18. We note that the pro forma financial statements have been prepared using the acquisition method of accounting. Please clarify what you mean by “the acquisition method of accounting.”
19. As a related matter, please explain to us how you determined who the accounting acquirer and acquiree are in accordance with paragraph 805-10-55-12 of the FASB Accounting Standards Codification. In your response address the following:
- the relative voting rights in the combined entity after the business combination of the TranS1 and former Baxano shareholders;
  - whether there is a large minority voting interest in the combined entity if no other owner or organized group of owners has a significant voting interest;
  - the composition of the board of directors of the combined entity;
  - the composition of senior management of the combined entity; and
  - the terms of the exchange of equity interests.
20. With regard to the preliminary estimated fair value adjustments, please indicate when the allocation is expected to be finalized. Provide other available information to aid in understanding the magnitude of any potential adjustment and the specific assets and liabilities in question.

Report of Independent Auditors, page 145

21. Please revise this report to indicate the city and state where issued. Refer to Rule 2-02(a) of Regulation S-X.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are

Ken Reali  
TranS1 Inc.  
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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 responding to our comments, please provide a written 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.

You may contact Gary Newberry at (202) 551-3761 or Lynn Dicker at (202) 551-3616 if you have questions regarding comments on the financial statements and related matters. Please contact Brian Soares at (202) 551-3580 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz  
Assistant Director

cc (via-email): Amy Wallace