



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3720

February 21, 2007

Rian J. Wren
President and Chief Executive Officer
Neutral Tandem, Inc.
One South Wacker Drive
Suite 200
Chicago, IL 60606

**RE: Neutral Tandem, Inc.
Registration Statement on Form S-1
Filed on January 22, 2007
File No. 333-140127**

Dear Mr. Wren:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

1. We note a number of blank spaces throughout your registration statement for information that you are not entitled to omit under Rule 430A, such as the anticipated price range information. Please include this disclosure as soon as practicable. Note that we may have additional comments once you have provided this disclosure. Therefore, please allow us sufficient time to review your complete disclosure prior to any distribution of preliminary prospectuses.

2. We note that you include industry research for estimated growth data and other figures cited throughout the document, such as those provided by IDC Research and CTIA. Please provide us with marked copies of any materials that support these and other third party statements, clearly cross-referencing a statement with the underlying factual support. Confirm for us that these documents are publicly available. To the extent that any of these reports have been prepared specifically for this filing, file a consent from the party.

Please provide similar support for other qualitative and quantitative statements regarding your business and/or industry. We note, for example, your assertion that you are a “leading” provider of tandem interconnection services to competitive carriers. Also revise to indicate by what measure you define “leading,” be it by revenues, market share, or some other standard.

Cover page

3. Please delete the term “Sole Book Runner” below your underwriter’s name as this information is not required by Item 501 of Regulation S-K or otherwise key to an investment decision. You may include the reference on the back cover page of the prospectus.

Market and Industry Data and Forecasts, page i

4. Please move this section and the preceding sentences referring to definitions and the glossary to your prospectus summary. Your prospectus summary should immediately follow an inside cover page containing only the information set forth in Item 502 of Regulation S-K.

Prospectus Summary, page 1

5. Where you have stated fiscal year revenues, also state net income (loss) for that fiscal year.
6. Your summary should discuss only the key aspects of the offering and your operations. Much of the discussion you currently include does not appear so highly material as to merit inclusion in the summary. Please significantly reduce the industry, strengths, services and strategy subsections, which are more appropriate for your business section.
7. Please minimize your use of acronyms and defined terms here and throughout the prospectus. For example, instead of defining Local Exchange Routing Guide as “LERG,” Session Initiation Protocol as “SIP,” and Signaling System 7 as “SS7,” consider including the entire names. Also, consider removing unnecessary explanations of your use of shortened names for Verizon, AT&T and BellSouth, among other companies, as you do on pages nine and ten.

8. When you name specific customers, as you do on page one, you should also provide disclosure addressing their significance to you. For each category listed, indicate the percentage of your revenues the customers represent individually or in the aggregate.

The Offering, page 5

9. Indicate the percentage of your outstanding common stock that the number of shares being offered would represent following the offering.
10. Revise the first full paragraph on page 5 to clarify the meaning of the second sentence. For example, it is unclear to what you are referring regarding "this issuance." In addition, please provide in your response letter a list of your various warrant grants, indicating whether the warrants are exercisable for shares of your common stock or preferred stock and which warrants were granted to your selling shareholders. Also advise us why the disclosure of the total number of shares outstanding takes into account the exercise of warrants by "certain" selling shareholders.
11. Please see the last paragraph. We note that you will have a reverse stock split of your common stock to be effective prior to the closing of this offering. Please present pro forma net income (loss) per share giving effect to automatic conversion of your preferred convertible stock and the reverse stock split on the face of the consolidated statements of operations and summary and selected financial data sections for all periods presented. Also, revise the MD&A to discuss this split including the pro forma effects of the split.

Summary Consolidated Financial and Other Data, page 7

12. Please see EBITDA under "Other Data." Present cash flows from operating, investing and financing activities before EBITDA. Also, expand footnote (2) to disclose the economic substance behind your decision to use EBITDA and the manner in which you compensate for the limitations of EBITDA as disclosed when using this non-GAAP financial measure.

Risk Factors, page 8

Failures or interruptions of our tandem network..., page 8

13. So that investors may assess the likelihood of the risk and the extent to which failure, interruption, loss or damage can affect you, describe whether you have suffered a material failure or interruption in the past. Also describe the consequences of such failure, interruption, loss or damage.

Out top five customers represent in the aggregate..., page 10

14. Rather than refer only to your one largest customer that accounted for one-quarter of your expected revenues in 2006, revise to indicate that two of your customers account for more

than 10% of your expected revenues, name the two customers and disclose the portion of your expected revenues attributable to each.

Use of Proceeds, page 22

15. To the extent practicable, revise to more specifically identify the ways in which you will use the proceeds to fund the continued expansion of your business, such as purchasing new equipment and hiring additional personnel. Alternatively, provide a cross-reference to a discussion in your MD&A of the various components of your planned expansion.

Dilution, page 24

16. Please quantify the further dilution to new investors that will occur upon exercise of your outstanding stock options.

Management's Discussion and Analysis, page 27

Overview, page 27

17. We note your disclosure under the risk factor "We would incur increased costs if we become a public company..." beginning on page 20 and your general and administrative expense disclosure on page 29. Specifically address what changes in your results of operations, liquidity and capital resources, and trends you expect as a result of your reorganization from a private company to a public company. It is important for investors to understand your historical financial information when you were a private company and whether and the extent to which management expects the trends and results of operations to continue or change as a public company.
18. Provide an expanded discussion (quantified, if possible) of any expected increases in expenses described throughout this section, to the extent known. For example, address the "significant future expenses" associated with the development of new services, deployment of additional infrastructure and expansion into new markets, as mentioned in the risk factor on page 15. Similarly address the anticipated increase in operating expenses as a result of establishing new tandem network switch sites, as discussed on page 12.

Operations Expenses, page 29

19. Tell us why payroll and benefit costs of switch location personnel are not accounted as components of cost of revenue.

Critical Accounting Policies and Estimates, page 29

Accrued Liabilities, page 30

20. Please tell us why you are using a “high” probability criterion instead of “probable” under SFAS 5.

Stock-Based Compensation, page 31

12. Stock-Based Compensation, pages F-19 and F-20

21. Please disclose the percentage weighted to the income and market approaches in the determination of the fair value.
22. Please disclose each significant factor that contributed to the enhanced the fair value of your stock as of each valuation date.
23. Refer to the second sentence of third paragraph after the bullets. Please revise to clarify that the fair value of your common stock was based upon comparisons of comparable publicly held companies.
24. Quantify and tell us the basis for each adjustment made to account for the fair value of your common stock.
25. We note that you determined the volatility assumption of your stock based upon historical prices of the Fidelity Select Telecommunications Index fund in view of your “non-liquid startup” status. Because of the effects of diversification that are present in an industry sector index, please tell us why it is not appropriate to consider a measure of the individual volatilities of similar entities included in the Fidelity Select Telecommunications Index Fund as an assumption in your valuation model. Refer to Question 6 of SAB Topic 14.D.1.
26. Please tell us how the business characteristics of the three companies that you selected for the purpose of estimating stock volatility in 2006 are similar to yours and if you selected these companies from the Fidelity Select Telecommunications Index Fund or some other sector fund.
27. In considering the volatilities of the three companies, tell us if you took into account your own leverage, the leverages of each of the entities, and the correlation of the entities’ stock returns. Refer to footnote 61 of SAB Topic 14.
28. Please disclose the significant factors contributing to the difference, if any, between the IPO price (when it is determined) and the fair value of your stock as of each grant date during the last twelve months.

Nine Months Ended September 30, 2006...., page 34

29. Please expand your MD&A to quantify the financial impact of an adverse FCC decision with respect to your petition for interconnection with Verizon Wireless, Inc., in the three markets where you terminate transit traffic.
30. Quantify the reduced minutes that you processed for the combined SBC and AT&T entity in 2006 relative to 2005.

Liquidity and Capital Resources, page 38

31. Although we note that you will have sufficient funds to meet your anticipated cash needs for “the next twelve months,” please provide a discussion regarding the company’s ability to meet its long-term liquidity needs. We consider “long-term” to be the period in excess of the next twelve months. See Section III.C. of Release No. 33-6835 and footnote 43 of Release No. 33-8350. Clarify whether the company will have sufficient cash and other financial resources to fund operations and meet its obligations beyond the next twelve months; if so, then state the length of time for which the existing funds will be sufficient. Furthermore, please revise to indicate whether management’s belief that the company will have sufficient funds for the next twelve months also assumes the receipt of the IPO proceeds.

Debt and Credit Facilities, page 40

6. Debt, page F-12

32. We note that you issued warrants to the note holders to purchase your preferred convertible stock. Please tell us how you considered SFAS 133 and paragraphs 7-32 of EITF 00-19 in determining the equity classification of the warrants.

Business, page 42

Our Customers, page 46

33. We note your disclosure in the first paragraph of this subsection on page 46 regarding your top customers and that you have included in the exhibit index a “form of customer agreement.” Tell us in your response letter what consideration you have given to filing the final Sprint Nextel and T-Mobile contracts or the particular final contract of a significant customer as exhibits in accordance with Item 601(b)(10) of Regulation S-K.

Competition, page 48

34. To the extent known, revise to include a clear, concrete and quantitative discussion of your relative market share in the markets in which you operate. If you are unable to provide market share information, then please disclose this fact and explain the reason for that

inability.

Management, page 56

2007 Long-Term Equity Incentive Plan, page 66

35. Please file as an exhibit the incentive plan once adopted.

Summary Compensation Table, page 70

36. As described in Instruction 4 to Item 402(c)(2)(ix) of Regulation S-K, quantify in note (2) each compensation item for Mr. Wren.

Principal and Selling Shareholders, page 79

37. Tell us whether any of the selling stockholders are broker-dealers or affiliates of broker-dealers. We may have further comments.

The Reclassification, page 82

38. Please state here the applicable original issue prices for each share of preferred stock of each series and the applicable series conversion prices.

Underwriting, page 91

39. As soon as practicable, furnish to us a statement as to whether or not the amount of compensation to be allowed or paid to the underwriters has been cleared with the NASD. Prior to the effectiveness of this registration statement, please provide us with a copy of the letter or a call from the NASD informing us that NASD has no additional concerns.
40. Revise the underwriters' compensation table so that it complies with the requirements of Item 508(e) of Regulation S-K and its instructions. For instance, the table should show separately the cash commissions to be paid and indicate the amount of the underwriters' compensation to be paid by the selling shareholders separate from the company.
41. Describe briefly the factors that the underwriters would consider in determining whether to consent to the sale of shares by management and particular other stockholders before the lock-up period's expiration.
42. Please revise to disclose what percentage of the offering will be reserved for sale under your directed share program. Briefly clarify the nature of the "other related persons" that will be able to participate in the program and whether broker-dealers registered with the NASD will be able to participate.

Financial Statements

Consolidated Balance Sheets, page F-3

43. Please provide a column to reflect the automatic conversion of your preferred convertible stock. Present this information in your summary and selected financial data sections.

Consolidated Statements of Operations, page F-4

44. Please present pro forma net income per share for the latest year and interim period giving effect to the automatic conversion of your preferred convertible stock and reverse stock split. Present this information in your summary and selected financial data sections.

Consolidated Statements of Cash Flows, page F-6

45. We note on page F-11 that the gross acquisition cost of your property, plant and equipment balance changed by at least \$15 million between the 2005 and 2006. However, you reported, in investing activities, only \$10.7 million towards the purchase of property and equipment during the nine months ended September 30, 2006. Please provide us with a reconciliation of the difference.

8. Preferred Convertible Stock, page F-14

46. Please tell us how you evaluated SFAS 150, specifically paragraphs 9-10 and A7-A9, in determining whether these instruments are mandatorily redeemable.
47. Please tell us whether the conversion feature in your preferred convertible shares meets the definition of an embedded derivative under paragraph 12 of SFAS 133. Further, tell us whether this hybrid instrument is a conventional convertible preferred instrument pursuant to paragraph 4 of EITF 00-19.
48. If you determine that the preferred convertible shares are not a conventional convertible instrument, please provide us with your analysis of paragraphs 12-32 of EITF 00-19 in determining whether the embedded conversion feature should be classified as equity or liability.
49. If EITF 00-19 is not applicable, please tell us how you evaluated EITF 98-5, as amended by EITF 00-27, with respect to any beneficial conversion feature.

9. Common Stock, page F-15

50. We note that you repurchased unvested restricted common shares for retirement during 2005 and 2006. Please disclose the terms of the repurchase agreements.

10. Verizon, page F-16

51. Please tell us how determined the accrual of \$0.4 million under SFAS 5.

12. Stock-based Compensation, pages F-18, F-19 and F-21

52. We note that you referred to an independent valuation specialist to determine the fair value of your stock. While you are not required to make reference to an independent valuation specialist, when you do you should disclose the name of the expert and include the consent of the expert in the filing. If you decide to delete your reference to the specialist, please revise the disclosures to explain the theoretical models and assumptions used by you to determine the valuation.
53. Please tell us why the disclosures about the appropriate adjustments applied to the fair value of the common stock are not similar to your disclosures on page 32. Tell us what discount was applied to account for your common stock's lack of liquidity and the liquidation preference of the preferred convertible stock in late 2005 and the basis for the discount.
54. Please provide disclosures under paragraphs A240(h)-(k) of SFAS 123R.

16. Subsequent Events, page F-22

55. Please disclose the fair value of the stock options granted in October and December 2006 and the total compensation expense recognized. Also, tell us the fair value of the common stock on each grant date and the basis for the fair value.

Updating

56. Please update the financial statements and all applicable sections under Rule 3-12 of Regulation S-X.

Exhibits

57. Please file the credit agreement and the preferred stock purchase warrant agreement that you mention on page 40 as exhibits, or tell us in your response letter why you believe they are not required to be filed under Item 601 of Regulation S-K.
58. Please note that we will need adequate time to review and comment upon your exhibits that have not been filed or submitted yet. In addition, please tell us whether you intend to submit requests for confidential treatment for portions of any exhibits under Rule 406 of the Securities Act. If so, we advise you that you will need to resolve any issues on the confidential treatment request prior to effectiveness of the registration statement. Furthermore, comments we may have on the confidential treatment request may impact disclosure in the registration statement. Therefore, please give us adequate time to review

the confidential treatment request.

* * * *

As appropriate, please amend your filing in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. 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 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 Act of 1933 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

Rian J. Wren
Neutral Tandem, Inc.
February 21, 2007
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We direct your attention to Rules 460 and 461 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.

You may contact Kathryn Jacobson, Staff Accountant, at (202) 551-3365 or Dean Suehiro, Senior Staff Accountant, at (202) 551-3384, if you have any questions regarding comments on the financial statements and related matters. Please contact Cheryl Grant, Staff Attorney, at (202) 551-3359 or me at (202) 551-3833 with any other questions.

Sincerely,

Michele Anderson
Legal Branch Chief

cc: via facsimile
Andrew Terry, Esq.
Kirkland & Ellis LLP
(312) 660-0287