



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

Mail Stop 3720

October 2, 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/A
Amended on September 21, 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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.

Prospectus Summary, page 1

1. As requested in our prior comment letters, where you state a percentage increase in revenues from the prior comparable period, please revise to also state the percentage change in net income from such prior period in addition to operating income.

Summary Condensed Consolidated Financial and Other Data, page 6
Selected Historical Consolidated Financial and Other Data, page 28

2. We note your response to prior comment 8. As previously requested, please revise the MD&A to discuss the reverse stock split including the pro forma effects of the split when it is “legally effected.”
3. Please refer to the column, “Pro Forma As Adjusted.” Please provide another footnote reference and description since it appears that the balance sheet has been adjusted to give effect to the offering, the conversion of the preferred stocks into shares of common stock and the application of the net proceeds from the offering.
4. Please refer to footnote (3). Disclose that you have given effect to the automatic conversion of your outstanding preferred stocks into shares of common stock for only the year ended December 31, 2006 and the six months ended June 30, 2007.

Risk Factors, page 9

We could experience material variances in our revenues, page 11

5. If you experience seasonal or other predictable variability in your revenues, you should revise to discuss such variability in the Business or MD&A section of your prospectus. Refer to Item 101(c)(1)(v) of Regulation S-K.

During the six months ended June 30, 2007, we delivered 58% of our terminating traffic to five carriers, page 14

6. We note your revision to include a cross-reference to your discussion of legal proceedings in response to our prior comment 10. To provide context for the cross-reference, please revise further to briefly state that Level 3 is one of the five carriers that the risk factor refers to and you are involved with legal proceedings with Level 3 described elsewhere.

Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 30

Overview, page 30

7. We note your revised disclosure in response to our prior comment four. Please revise your references to specific customers on pages 30 and 49 further to explain their significance to you in terms of revenues. Although you note your belief that the named customers are representative of your base and that each represents more than 1.1% of your revenues in its respective customer category, we do not believe that such disclosure provides a meaningful explanation of their

significance to you. Instead, please revise to disclose the percentage of your revenues the customers represent individually and in the aggregate.

Financial Operation Overview, page 31
Liquidity and Capital Resources, page 44

8. We note your revised disclosure on pages 32, 33 and 44 in response to our prior comments 11 and 12. Please revise further to clarify the following disclosure in connection with your planned expansion:
- On page 32, you describe \$1.0 million to \$2.0 million of network and facilities expenses in connection with the start-up of an additional switch location. You also describe expected network and facilities expenses of only \$2.3 million as part of your planned expansion into 24 new markets in the next 12 months. Please revise to further explain the connection between these two figures. For example, how many switch locations do you plan to add as part of your planned expansion?
 - On pages 32 and 33, you disclose expected network and facilities expenses and operations expenses of \$2.3 million and \$1.0 million, respectively, in connection with your planned expansion. On page 44, you disclose expected capital spending of approximately \$5.9 million in connection with your planned expansion. Please revise where appropriate to fully account for the components of the expected capital spending in connection with your planned expansion.

Stock-based Compensation, pages 37-38

9. We note your responses to prior comment 15 in your correspondences dated September 21 and September 25, 2007. After the filing is revised for the reverse stock split, we may have further comments on the fair values assigned to the common stock.

Compensation Discussion and Analysis, page 71

Our Compensation Methodology, page 71

10. We note your revised disclosure in response to our prior comment 24. Please further revise to identify the members of the peer group benchmarked rather than just a sample of such members. Additionally, please further revise to explain how the results of the 2005 benchmarking study were and/or are used in connection with compensation decisions. For example, were they used in connection with establishing the terms of your employment agreements in early 2006? Are they still used in connection with compensation decisions? If so, how?

11. We note your response to our prior comment 30. Please revise your disclosure at the bottom of page 71 to disclose that your board reviews and ratifies the compensation decisions of the Compensation Committee.

Elements of Compensation, page 72

12. We note your revised disclosure on page 73 regarding the difficulty of achieving the corporate and individual targets in connection with your annual cash incentive bonus program. Please revise further to discuss in more detail how difficult it will be for an executive or how likely it will be for the company to achieve the target levels or other factors. Note that general statements regarding the level of difficulty or ease associated with achieving performance measures are not sufficient.
13. We note your response to our prior comment 25 regarding the competitive harm that would result from disclosure of targets; however, we continue to believe that each of the performance targets should be disclosed. Alternatively, provide us with a thorough and detailed analysis as to why disclosure of each of the performance targets would cause your company competitive harm. Your analysis should be applied to each of the performance targets and should address, as merely one example, why disclosure of targets (for a now-expired fiscal year) that are similar to categories of information contained in your publicly-available financial statements would cause the company competitive harm under the company's particular facts and circumstances. Also explain to us in more detail how competitors would gain insight into your confidential business plan from disclosure of your targets and how such insight could result in competitive harm.
14. Please revise to provide specific disclosure of how you used the corporate and individual targets and the actual performance levels to determine the amount of stock option grants awarded in 2006.

Principal and Selling Shareholders, page 94

15. We note your revised disclosure in response to our prior comment 40. However, the first sentence of the third paragraph on page 94 still refers to your treatment of warrants for purposes of the table. Since you previously advised us that all warrants were issued to Venture Lending & Leasing and that party is not listed as a selling stockholder, please revise to remove the reference to warrants or advise us why it is appropriate.

Consolidated Statements of Operations, page F-4

16. We note your response to prior comment 43. As previously requested, please present adjusted pro forma net income per share giving effect to the reverse stock

split for all periods presented when it has been "legally effected." We note footnote (3) on pages 7 and 29.

Note 3. Restatement of Consolidated Financial Statements, page F-12

17. Please confirm to us that you did not issue any warrants to purchase convertible preferred stock in 2004.

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As appropriate, please amend your registration statement 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 supplemental 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.

You may contact Kathryn Jacobson, Staff Accountant, at (202) 551-3365 or Dean Suehiro, Senior Staff Accountant, at (202) 551-3810 if you have questions regarding comments on the financial statements and related matters. Please contact John Harrington, Attorney-Adviser, at (202) 551-3576, or me at (202) 551-3810 with any other questions.

Sincerely,

/s/ Michele Anderson
Legal Branch Chief

cc: Gerald T. Nowak
Andrew J. Terry
Theodore A. Peto
Kirkland & Ellis LLP
Via facsimile: (312) 861-2200