



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

April 16, 2009

VIA U.S. MAIL AND FAX (408) 635-4985

Mr. Mark J. Gallenberger
Vice President and Chief Financial Officer
LTX-Credence Corporation
1421 California Circle
Milipitas, California 95035

Re: LTX-Credence Corporation
Form 10-K for the year ended July 31, 2008
Filed October 14, 2008
File No. 000-10761

Dear Mr. Gallenberger:

We have reviewed your response filed April 6, 2009 and have the following comment. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your documents 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.

Form 10-Q for the Period Ended January 31, 2009

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 23

Critical Accounting Policies and Use of Estimates - Valuation of Goodwill, page 25

1. Please refer to prior comment 2. In the interest of providing readers with a better insight into management's judgments into accounting for goodwill, please consider disclosing the following in future filings:
 - In addition to disclosing the valuation methodology used to value goodwill, please include sufficient information to enable a reader to understand why management selected this method as being the most meaningful for the company in preparing the goodwill impairment analyses. Refer to the guidance in paragraph 19 of SFAS 157, which indicates that multiple valuation techniques could be appropriate in determining the fair value of reporting units.
 - A qualitative and quantitative description of the material assumptions used and a sensitivity analysis of those assumptions based upon reasonably likely changes.
 - Disclosure of the table by reporting unit provided in your response, which shows the comparison of fair value of the reporting unit to the carrying value of the reporting unit to illustrate to the reader how much room before Step 2 will have to be performed.
 - If applicable, how the assumptions and methodologies used for valuing goodwill in the current year have changed since the prior year highlighting the impact of any changes.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendments responses to our comments.

You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 or me at (202) 551-3554 if you have any questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Angela Crane
Accounting Branch Chief