



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

February 27, 2008

Via U.S. Mail and Fax (408) 635-4378

Kevin C. Eichler
Senior Vice President, Chief Financial Officer and Secretary
Credence Systems Corporation
1421 California Circle
Milpitas, California 95035

Re: Credence Systems Corporation
Form 10-K for the fiscal year ended November 3, 2007
Filed January 17, 2008
File No. 000-22366

Dear Mr. Eichler:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your future filings 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 on any other aspects 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 November 3, 2007

Item 8. Financial Statements and Supplementary Data, page 55

Note 1. Organization and Summary of Significant Accounting Policies, page 62

Revenue Recognition, page 63

1. Please tell us and disclose in future filings the contract elements permitting separate revenue recognition and describe how they are distinguished.
2. Please tell us how you assess separate units of accounting in accordance with paragraph 9 of EITF 00-21. Please also discuss how you allocate the arrangement consideration to the individual units of accounting using the residual method. We note from paragraph 12 of EITF 00-21, that you would use the residual method of allocation when you have objective and reliable evidence of the fair values of undelivered items but no such evidence for delivered items. We further note that the reverse residual method is not appropriate consistent with paragraph 12 of EITF 00-21. Discuss the undelivered elements and how you determine the fair value of the undelivered items and also discuss why you cannot determine the fair value of delivered items.
3. You state that deferred revenue includes revenue related to maintenance contracts. Please tell us and revise your future filings to describe your accounting policy relating to maintenance contracts.

Other Balance Sheet Components, page 72

4. You disclose that product spare parts are depreciated using the straight-line method over five years. Please tell us the nature of this asset and whether you use these spare parts in your property and equipment or to repair your customers' inventory. Please also discuss why you depreciate these assets and how you determined the proper amortization period.

Item 9A. Controls and Procedures, page 99

5. We note your statement that the chief executive officer and chief financial officer have concluded that the company's disclosure controls and procedures are effective "subject to the limitations noted in this Part II, Item 9A." Given the exceptions noted, it remains unclear whether your chief executive officer and chief financial officer have concluded that your disclosure controls and procedures are effective. Please revise your disclosure in future filings to state, in clear and unqualified language, the conclusions reached by your chief executive officer and your chief financial officer on the effectiveness of your disclosure controls and procedures. Otherwise, please tell us why it is appropriate to include this exception.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response 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 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.

Kevin C. Eichler
Credence Systems Corporation
February 27, 2008
Page 4

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.

You may contact Praveen Kartholy, Staff Accountant, at (202) 551-3778 or me at (202) 551-3604 if you have questions regarding these comments. In this regard, do not hesitate to contact Brian Cascio, Accounting Branch Chief, at (202) 551-3676.

Sincerely,

Kaitlin Tillan
Assistant Chief Accountant