



DIVISION OF
CORPORATION FINANCE

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

March 2, 2011

Via E-mail

Ronald C. Albrecht
Chief Financial Officer
Innovative Solutions & Support, Inc.
720 Pennsylvania Drive
Exton, PA 19341

**Re: Innovative Solutions & Support, Inc.
Form 10-K for the Fiscal Year Ended September 30, 2010
Filed December 14, 2010
Form 10-Q for the Quarter Ended December 31, 2010
Filed February 8, 2011
File No. 000-31157**

Dear Mr. Albrecht:

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 appropriate, 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.

Form 10-K for the Fiscal Year Ended September 30, 2010

Item 8. Financial Statements and Supplementary Data

Consolidated Statements of Operations, page 36

1. We note that you allocate sales and cost of sales as either “product” or “engineering – modification and development.” We also note from your disclosures on page 41 that your multiple element arrangements can include design and development activities, functional upgrades, and/or product sales. Please explain how you allocate multiple element arrangements to the two captions on the income statement. In your response, please provide us with the amount of bundled arrangements that include services accounted for pursuant to ASC 605-35 recognized for each period presented and tell us

if/how you allocate any portion of stand-alone ASC 605-35 arrangements to “product” revenue and cost of revenue. Additionally, it appears from your disclosures on page 42 that extended warranties are presented as “product” revenue and cost of revenue. Please provide us with the amount of extended warranty services recognized for each period presented. If material, please consider clarifying your disclosures in future filings with respect to how your arrangements are allocated in your consolidated statements of operations. See Rule 5-03 of Regulation S-X.

Note 14. Commitments and Contingencies, page 58

2. You indicate that the trade secret and proprietary suit filed on January 17, 2002 in Pennsylvania state court against Stratham Associates is ongoing. Tell us how you considered expanding the disclosure of the status of this case to be more detailed and providing the disclosure requirements of ASC 450-20-50.

Item 11. Executive Compensation (incorporated by reference to the definitive proxy statement filed January 27, 2011)

Summary Compensation Table, page 25

3. Future filings should disclose whether the aggregate grant date fair value of stock awards and options were computed in accordance with FASB Accounting Standards Codification Topic 718. Refer to Items 402(c) and (k) of Regulation S-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters (incorporated by reference to the definitive proxy statement filed January 27, 2011)

Security Ownership of Principal Shareholders, page 3

4. Consistent with Item 403 of Regulation S-K, please identify the natural person or persons who exercise sole or shared voting and/or dispositive powers over the securities held by Federated Investors, Inc., Ingalls & Snyder, LLC and WealthTrust Axiom LLC.

Form 10-Q for the Quarterly Period Ended December 31, 2010

Part II

Item 1. Legal Proceedings, page 19

5. Please tell us the basis on which you formulated your belief that the likelihood of the bankruptcy trustee will prevail in its avoidance actions is remote.

Ronald C. Albrecht
Innovative Solutions & Support, Inc.
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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 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 Melissa Feider at (202) 551-3379 or me at (202) 551-3499 if you have questions regarding comments on the financial statements and related matters. Please contact Michael Johnson, Staff Attorney, at (202) 551-3477 or Mark P. Shuman, Legal Branch Chief, at (202) 551-3462 with any other questions.

Sincerely,

/s/ Kathleen Collins

Kathleen Collins
Accounting Branch Chief