



DIVISION OF
CORPORATION FINANCE

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

October 28, 2014

Via E-mail

Mr. Eyal Waldman
President and Chief Executive Officer
Mellanox Technologies, Ltd.
Beit Mellanox
Yokneam, Israel 20692

**Re: Mellanox Technologies, Ltd.
Form 10-K for the Fiscal Year Ended December 31, 2013
Filed February 28, 2014
Form 10-Q for the Quarterly Period Ended June 30, 2014
Filed August 11, 2014
File No. 1-33299**

Dear Mr. Waldman:

We have reviewed your filings 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 filings, 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 any amendments are appropriate, please tell us why in your response.

After reviewing any amendments to your filings and the information you provide in response to these comments, we may have additional comments.

Form 10-Q for the Quarter Ended June 30, 2014

Item 4- Controls and Procedures, page 34

Evaluation of Disclosure Controls and Procedures, page 34

1. We noted disclosures herein that you “will be amending your Annual Report on Form 10-K for the year ended December 31, 2013 to reflect the conclusion by FY 2013 management that our internal control over financial reporting and disclosure controls and

procedures were not effective as of December 31, 2013". Please advise us on the status of the referenced amendment that will reflect your reevaluation of disclosure controls and procedures and internal control over financial reporting and revised conclusions as a result of such reevaluation. Also, confirm, if true, that the amendment will include a revised auditors' report on internal control over financial reporting that is consistent with management's revised conclusion that your internal control over financial reporting were not effective as of December 31, 2013. Refer to Rule 12b-20 of the Securities Exchange Act of 1934 as well as paragraph 98 of PCAOB Auditing Standard No. 5.

2. In your amended filing, please disclose in greater detail:

- when and how the material weakness was identified and
- the specific steps that the company has taken or plans to take, if any, to remediate the material weakness.

Provide your proposed disclosure as part of this response. Refer to www.sec.gov/info/accountants/stafficreporting.pdf

3. Tell us your plans as they relate to any amendment of your Form 10-Q for the quarter ended March 31, 2014 to revise disclosure of management's conclusion on your disclosure controls and procedures.

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.

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You may contact Gary Newberry, Staff Accountant, at (202) 551-3761 or Jay Webb, Reviewing Accountant, at (202) 551-3603 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

/s/ Jay Webb "for"

Kevin L. Vaughn
Accounting Branch Chief