



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

April 20, 2018

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

**Re: Mellanox Technologies, Ltd.
Amendment No. 1 to Preliminary Proxy Statement on Schedule 14A
Filed April 11, 2018
File No. 001-33299**

Dear Mr. Waldman:

We have limited our review of your filing to those issues we have addressed in our 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our April 4, 2018 letter.

Questions and Answers regarding this Solicitation and Voting at the Meeting, page 1

1. It is unclear where you revised your filing to disclose the possible antitakeover and other effects of the Universal Proxy Card proposal as mentioned in the last sentence of your response to prior comment 2. Please advise or revise.

If the Universal Proxy Card proposal is approved..., page 12

2. Please address that part of prior comment 6 asking how measuring the 10-day period from the date of the meeting is consistent with the language in your proposed revisions to Article 39. If the Board can elect to follow procedures that differ from Article 39, please say so clearly in your disclosure.

3. Please revise the third paragraph following the bullet point on page 13 to clarify when shareholders must provide you the required information, and when you will provide shareholders with information regarding the registrant's nominees for the 2018 annual meeting. Also, if only one nominating shareholder is eligible to nominate directors for the 2018 annual meeting, please revise the second paragraph on page 14 to clarify.

Background, page 17

4. Please disclose the timing of the revised severance agreements mentioned in your April 17, 2018 Form 8-K relative to the events mentioned in this section. Disclose any connection between those revised agreements and the developments mentioned in this section, and quantify the effect of the changes.

Proposal 2, page 21

5. Your response to prior comment 8 and disclosure on page 15 appear to indicate that all information required by Schedule 14A regarding each nominee mentioned on the universal proxy card will be included in your proxy statement and in each nominating shareholder's proxy statement. Please reconcile that response and disclosure with the proposed revision to Article 39 on page A-3 requiring that proxy statements refer to other proxy statements for information regarding other nominees.
6. Please address that part of prior comment 14 seeking clear disclosure, if true, that the registrant's nominees do not provide nominating shareholders information similar to that required from shareholder nominees. Also disclose the reasons for and effects of this difference.
7. Your disclosure indicates that, in specified circumstances, investors must provide notice of nominees by the 10th day following public announcement of a meeting. Then Mellanox appears to have 10 days to provide shareholders with information regarding other shareholders' nominees. As a result, it appears that shareholders would, in those circumstances, have the information required for their proxy statements by the twentieth day after the notice. If Mellanox is required to provide only 21 days' notice of a meeting and therefore could effectively preclude investors from soliciting proxies, please clearly address this effect of your proposal in your proxy statement. Also, given the notice requirements in your Articles of Association, please tell us how shareholders will learn of an extraordinary general meeting with sufficient time to provide the 90 days' notice mentioned on page 13.
8. We note your response to prior comment 16 regarding shareholders choosing to file Schedule 14N. We also note your disclosure on page 15 that shareholders "may" file Schedule 14N. Please provide us with your analysis of whether and when filing of Schedule 14N will be required if shareholders approve your Universal Proxy Card Proposal. To the extent you believe a Schedule 14N filing will not always be required, it

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remains unclear how each of the parties soliciting proxies will have access to all information required to be disclosed regarding the participants in their solicitation.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief
Office of Electronics and Machinery

cc: Josh Dubofsky, Esq.
Latham & Watkins LLP