



DIVISION OF
CORPORATION FINANCE

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

October 24, 2012

Via E-Mail

Dror Harel-Elkayam
Chief Financial Officer
Attunity Ltd
70 Blanchard Road
Burlington, Massachusetts 01803

**Re: Attunity Ltd.
Registration Statement on Form F-3
Filed September 27, 2012
File No. 333-184139**

Dear Mr. Harel-Elkayam:

We have limited our review of your registration statement 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 this letter by amending your registration statement and providing the requested information. Where 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 registration statement and the information you provide in response to these comments, we may have additional comments.

Incorporation of Certain Information by Reference, page 26

1. It appears you should incorporate by reference from your Form 6-K filed September 20, 2011, or otherwise provide in the prospectus, the information required by Rule 3-05 and Article 11 of Regulation S-X with respect to your acquisition of RepliWeb Inc. Please revise accordingly, or advise.

Exhibit 5.1

2. The legality opinion states counsel's opinion that under the circumstances specified, the warrants covered by the registration statement "will be legally issued, fully paid and non-assessable." Please have counsel file a revised opinion that gives its opinion as to whether the warrants will be binding obligations of the company under the laws of the jurisdiction governing the warrant agreement. For guidance, please refer to Section II.B.f. of Staff Legal Bulletin No. 19.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rule 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Katherine Wray, Attorney-Advisor, at (202) 551-3483 or me at (202) 551-3462 with any questions. If you thereafter require assistance, you may contact Barbara C. Jacobs, Assistant Director, at (202) 551-3735.

Sincerely,

/s/ Mark P. Shuman

Mark P. Shuman
Branch Chief – Legal

cc: Via E-Mail
Howard E. Berkenblit, Sullivan & Worcester LLP