



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4561

July 19, 2016

Rouven Bergmann
Chief Financial Officer
Medidata Solutions, Inc.
350 Hudson Street, 9th Floor
New York, NY 10014

Re: Medidata Solutions, Inc.
Form 10-K for the year ended December 31, 2015
Filed February 29, 2016
File No. 001-34387

Dear Mr. Bergmann:

We have reviewed your letter dated July 1, 2016 in connection with the above-referenced 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. Unless otherwise noted, where prior comments are referred to they refer to our letter dated June 17, 2016.

Business

Backlog, page 5

1. In your response to prior comment 1 you indicate that you will present adjusted 12-month subscription backlog in future annual reports. As your expectations regarding intra-year renewals is solely your estimate and not based on objectively verifiable information, please exclude the measure from future filings.
2. We note your response to prior comment 1. As total backlog represents the amount of known future revenues, please confirm that in future Forms 10-K you will disclose the amount of total backlog as required by Item 101(c)(1)(viii) of Regulation S-K. Such

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disclosure may be accompanied by qualifying disclosure to explain how the specific timing and significance of contract renewals and increased contractual commitments may impact your presentation of total backlog.

You may contact Joyce Sweeney, Staff Accountant, at (202) 551-3449 if you have questions regarding comments on the financial statements and related matters. If you have any other questions, please contact Edwin Kim, Staff Attorney, at (202) 551-3297 or Jan Woo, Legal Branch Chief, at (202) 551-3453. If you require further assistance, do not hesitate to contact me at (202) 551-3499.

Sincerely,

/s/ Kathleen Collins

Kathleen Collins
Accounting Branch Chief
Office of Information Technologies
and Services