



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 4561

June 17, 2016

Rouven Bergmann  
Chief Financial Officer  
Medidata Solutions, Inc.  
350 Hudson Street, 9<sup>th</sup> 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 June 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 May 10, 2016.

Business

Backlog, page 5

1. We note your response to prior comment 1. Please tell us the amount of total backlog as of December 31, 2014 and 2015. As your contract terms are one to five years, it appears that total backlog, which includes known amounts that will be converted into revenues after the 12-month period, would be meaningful information for investors. Please explain further how your 12-month subscription backlog provides context with regards to both the timing of revenue and year-over-year trends, but your total backlog does not. In addition, we note your disclosure explaining that your full-year subscription backlog does not include expected intra-year renewals or other adjustments. Tell us your consideration

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to include similar qualifying disclosure to explain how the specific timing and significance of contract renewals may impact your presentation of total backlog.

2. In your response to prior comment 2 you state that although your contract terms generally range from one to five years, such terms do not necessarily follow a normal distribution across this range, and the annual commitment in your large enterprise deals typically increases over the term of the arrangement. Please tell us the average or typical contract term for your subscriptions. Also, explain how you define a “large enterprise arrangement” and tell us the amount or percentage of revenue attributable to such arrangements for each period presented.

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