

Medidata Solutions, Inc.  
Form DEF 14A  
April 19, 2017  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**SCHEDULE 14A**

**Proxy Statement Pursuant to Section 14(a) of  
the Securities Exchange Act of 1934**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

**Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

**Medidata Solutions, Inc.**

**(Name of Registrant as Specified In Its Charter)**

**(Name of Person(s) Filing Proxy Statement, if other than the Registrant)**

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

1) Title of each class of securities to which transaction applies:

2) Aggregate number of securities to which transaction applies:

- 3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
  
- 4) Proposed maximum aggregate value of transaction:
  
- 5) Total fee paid:

Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- 1) Amount Previously Paid:
  
- 2) Form, Schedule or Registration Statement No.:
  
- 3) Filing Party:
  
- 4) Date Filed:

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April 19, 2017

Dear Stockholders:

We are pleased to invite you to attend the 2017 annual meeting of stockholders of Medidata Solutions, Inc., which will be held at 10:00 a.m., Eastern Daylight Time, on May 30, 2017. As a leading provider of cloud-based technology solutions, we are pleased that this year's annual meeting will again be a completely virtual meeting of stockholders, held over the Internet. You will be able to participate in the annual meeting, vote your shares electronically and submit your questions during the live webcast of the meeting by visiting [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017) and entering your 16-digit control number.

At the meeting, we will ask you to elect seven directors, constituting the entire board of directors, to serve for the ensuing year; to approve our 2017 Long-Term Incentive Plan ( LTIP ); and to ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the year ending December 31, 2017. In addition, we will hold an advisory vote on the compensation of the named executive officers (commonly referred to as the say on pay vote ), and an advisory vote on the frequency of soliciting future say on pay votes.

The meeting also will provide us an opportunity to review with you our business and affairs since our last annual meeting.

Your vote is important to us and to our business. Whether or not you plan to participate in the live webcast of our annual meeting, we hope you will vote as soon as possible. You may vote over the Internet, as well as by telephone or by mailing a proxy or voting instruction card. Voting over the Internet, by telephone or by written proxy will ensure your representation at the annual meeting regardless of whether you participate in our live webcast. Please review the instructions on the proxy or voting instruction card regarding each of these voting options.

We look forward to your participation at our virtual annual meeting.

Sincerely,

Tarek A. Sherif  
*Chairman and Chief Executive Officer*

**Important Notice Regarding the Availability of Proxy Materials**

**for the Annual Meeting of Stockholders**

**To Be Held on May 30, 2017**

**This proxy statement, along with our 2016 annual report to stockholders, is available free of charge at the following website: [www.proxyvote.com](http://www.proxyvote.com).**

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**MEDIDATA SOLUTIONS, INC.**

**NOTICE OF 2017 ANNUAL MEETING OF STOCKHOLDERS**

**To Be Held on May 30, 2017**

The annual meeting of stockholders of Medidata Solutions, Inc. will be held virtually (that is, over the Internet) on May 30, 2017, at 10:00 a.m., Eastern Daylight Time, for the following purposes:

1. To elect seven directors, constituting the entire board of directors, to hold office until the next annual meeting of stockholders or until their respective successors have been elected and qualified.
2. To hold an advisory vote to approve the compensation of the named executive officers (the say on pay vote ).
3. To approve our 2017 Long-Term Incentive Plan ( LTIP ).
4. To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the year ending December 31, 2017.
5. To hold an advisory vote on the frequency of soliciting future say on pay votes (the say when on pay vote ).
6. To transact such other business as may properly come before the meeting or at any and all adjournments or postponements thereof.

Attached to this notice is a proxy statement setting forth information with respect to the above items and certain other information. As a leading provider of cloud-based technology solutions, we are pleased that this year's annual meeting will again be a completely virtual meeting of stockholders, held over the Internet. You will be able to attend the annual meeting, vote your shares electronically and submit your questions during the live webcast of the meeting by visiting [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017) and entering your 16-digit control number.

If you owned our common stock at the close of business on April 3, 2017, you may participate in and vote at the meeting. A list of stockholders eligible to vote at the meeting will be available for review for any purpose related to the meeting, both during our regular business hours at our headquarters in New York, New York for the ten days prior to the meeting, and online during the Annual Meeting, accessible at [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017).

In accordance with Securities and Exchange Commission rules, we are furnishing these proxy materials and our 2016 Annual Report to Stockholders over the Internet. We believe that posting these materials on the Internet enables us to provide stockholders with the information that they need more quickly, while lowering our costs of printing and delivery and reducing the environmental impact of our annual meeting. Stockholders may request mailed paper copies if preferred. On or about April 20, 2017 we will mail to stockholders as of the record date a notice containing instructions on how to access our Annual Meeting materials and vote via the Internet, mail or telephone. You may also vote electronically during the live webcast of the virtual meeting.

Your vote is very important to us and to our business. Whether or not you plan to participate in our virtual annual meeting, we encourage you to read this proxy statement and submit your proxy or voting instructions as soon as possible.

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By order of the board of directors,

Michael Otner

*Executive Vice President, General Counsel and Secretary*

April 19, 2017

350 Hudson Street, 9<sup>th</sup> Floor

New York, New York 10014

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**PROXY STATEMENT**

**FOR**

**2017 ANNUAL MEETING OF STOCKHOLDERS**

**GENERAL INFORMATION**

This proxy statement is furnished in connection with the solicitation of proxies by our board of directors for use at the 2017 annual meeting of stockholders to be held on May 30, 2017 (the Annual Meeting), or at any adjournments or postponements of the Annual Meeting, at the time and for the purposes specified in the accompanying notice.

Our board of directors has made these proxy materials available to you via the Internet or, upon your request, has delivered printed versions of these materials to you by mail. We are furnishing this proxy statement in connection with the solicitation by our board of directors of proxies to be voted at our Annual Meeting. The Annual Meeting will be held on May 30, 2017 at 10:00 a.m. Eastern Daylight Time, or at any adjournment thereof. As a leading provider of cloud-based technology solutions, we are pleased that this year's annual meeting will again be a completely virtual meeting of stockholders, held over the Internet.

**INTERNET AVAILABILITY OF ANNUAL MEETING MATERIALS**

We are making this proxy statement and our 2016 Annual Report to Stockholders for the year ended December 31, 2016, including our Annual Report on Form 10-K for the year ended December 31, 2016, available to our stockholders on the Internet. On or about April 20, 2017, we will mail our stockholders a Notice of Internet Availability of Proxy Materials containing instructions on how to access our proxy materials, including this proxy statement and our 2016 Annual Report, and vote. If you received a Notice of Internet Availability of Proxy Materials by mail, you will not receive a printed copy of the proxy materials in the mail unless you specifically request these materials. Other stockholders, in accordance with their prior requests, have received e-mail notification of how to access our proxy materials and vote over the Internet, or have been mailed paper copies of our proxy materials and a proxy card or a vote instruction form from their bank or broker.

Internet distribution of proxy materials is designed to expedite receipt by stockholders, lower the cost of our Annual Meeting, and reduce the environmental impact of our Annual Meeting. However, if you received a Notice of Internet Availability of Proxy Materials by mail and would like to receive a printed copy of our proxy materials, please follow the instructions for requesting such materials contained on the Notice of Internet Availability of Proxy Materials. If you have previously elected to receive our proxy materials electronically, you will continue to receive these materials via e-mail unless you elect otherwise.

**PARTICIPATING IN THE VIRTUAL ANNUAL MEETING**

Medidata Solutions will be hosting this year's Annual Meeting live over the Internet at [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017). This year's Annual Meeting will be a completely virtual meeting of stockholders. A summary of the information you need to participate in our Annual Meeting online is provided below:

Any stockholder can attend and listen to the Annual Meeting live over the Internet at [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017);

Only stockholders as of the record date for the Annual Meeting, by using their 16-digit control number, may vote or submit questions while participating in the live webcast of the Annual Meeting;

Instructions on how to participate in the Annual Meeting are posted at [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017);



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Questions regarding how to participate in the Annual Meeting will be answered by calling 1-855-449-0991 on the meeting date; and

A webcast replay of the Annual Meeting will be available online until May 30, 2018.

In this proxy statement, the terms our company, Medidata, we, us and our refer to Medidata Solutions, Inc. and its consolidated subsidiaries and their predecessors. The mailing address of our principal executive office is Medidata Solutions, Inc., 350 Hudson Street, 9th Floor, New York, New York 10014.

All shares entitled to vote and represented by properly executed proxies delivered pursuant to this solicitation, and not later revoked, will be voted at the Annual Meeting in accordance with the instructions given in the proxy. If no instructions are indicated on a properly executed proxy, the shares represented by that proxy will be voted in accordance with the recommendations of the board of directors as follows:

FOR the election of the seven director nominees;

FOR the approval of the compensation of the named executive officers on an advisory basis (the say on pay vote );

FOR the approval of our 2017 Long-Term Incentive Plan ( LTIP );

FOR the ratification of Deloitte & Touche LLP as our independent registered public accounting firm for the year ending December 31, 2017;

FOR ANNUALLY on the frequency of holding the say on pay vote in the future; and

in the discretion of the named proxies with respect to any other matters presented at the Annual Meeting.

**All shares of our common stock represented by properly executed and unrevoked proxies will be voted if such proxies are received in time for the meeting.**

### **Who is entitled to vote?**

As of the close of business on April 3, 2017, the record date for determination of stockholders entitled to vote at the Annual Meeting, there were outstanding 58,253,403 shares of our common stock (excluding treasury shares, which cannot be voted), all of which are entitled to vote with respect to all matters to be acted upon at the Annual Meeting. Each stockholder of record is entitled to one vote for each share of common stock held by such stockholder. No shares of preferred stock of the company were outstanding as of April 3, 2017.

### **How many shares must be present or represented to conduct business at the Annual Meeting?**

The required quorum for the transaction of business at the meeting is a majority of the total outstanding shares of our common stock entitled to vote at the meeting, either voted electronically during the live webcast or represented by proxy. Both abstentions and broker non-votes are counted for the purpose of determining the presence of a quorum.

### **Why was I mailed a notice regarding the Internet availability of proxy materials instead of a full set of printed proxy materials?**

Pursuant to the notice and access rules adopted by the Securities and Exchange Commission (SEC), we have elected to provide stockholders access to our proxy materials over the Internet. Accordingly, we sent a Notice of Internet Availability of Proxy Materials to all of our stockholders as of the record date. The Notice of Internet Availability of Proxy Materials includes instructions on how to access our proxy materials over the



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Internet and how to request a printed copy of these materials. In addition, by following the instructions in the Notice of Internet Availability of Proxy Materials, stockholders may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis.

Choosing to receive your future proxy materials by email will save us the cost of printing and mailing documents to you and will reduce the impact of our annual meetings on the environment. If you choose to receive future proxy materials by email, you will receive an email next year with instructions containing a link to those materials and a link to the proxy voting site. Your election to receive proxy materials by email will remain in effect until you terminate it.

**What are my voting choices and what is the voting requirement to approve each of the proposals?**

The following chart describes the proposals to be considered at the meeting, the voting choices for each proposal, the vote required to elect directors and to adopt each other proposal, and the manner in which votes will be counted:

<b>Proposal</b>	<b>Voting Options</b>	<b>Vote Required to Adopt the Proposal</b>	<b>Effect of Abstentions</b>	<b>Effect of Broker Non-Votes</b>
<b>1. Election of directors</b>	For, against, or abstain on each nominee.	A director nominee will be elected to the board of directors if the votes cast for the nominee's election exceed the votes cast against such nominee's election.	No effect.	No broker discretion to vote.
<b>2. Advisory vote to approve named executive compensation (the say on pay vote )</b>	For, against, or abstain.	The affirmative vote of a majority of the shares of common stock represented at the annual meeting and entitled to vote thereon.	Counted as vote. Same effect as votes against.	No broker discretion to vote.
<b>3. Approval of the 2017 Long-Term Incentive Plan</b>	For, against, or abstain.	The affirmative vote of a majority of the shares of common stock represented at the annual meeting and entitled to vote thereon.	Counted as vote. Same effect as votes against.	No broker discretion to vote.
<b>4. Ratification of selection of Deloitte &amp; Touche LLP</b>	For, against, or abstain.	The affirmative vote of a majority of the shares of common stock represented at the annual meeting and entitled to vote thereon.	Counted as vote. Same effect as votes against.	Brokers have discretion to vote.
<b>5. Advisory vote on the frequency of holding the say on pay vote in the future (the say when on pay vote )</b>	1, 2 or 3 years, or abstain.	Number of years (1, 2 or 3) receiving the highest number of votes.	No effect.	No broker discretion to vote.

**How can I vote my shares?**

**By proxy.** Whether you hold shares directly as the stockholder of record or beneficially in street name, you may direct how your shares are voted without participating in our online Annual Meeting. If you are a stockholder of record, you may vote by submitting a proxy. If you hold shares beneficially in street name, you

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may vote by submitting voting instructions to your broker, trustee or nominee. For directions on how to vote, please refer to the instructions on your Notice of Internet Availability of Proxy Materials or proxy card or, for shares held beneficially in street name, the voting instruction card provided by your broker, trustee or nominee.

***At our virtual Annual Meeting.*** Whether you are a stockholder of record or hold your shares in street name, you may vote electronically during the live webcast of our Annual Meeting. You will need to enter your 16-digit control number (included in your Notice of Internet Availability of Proxy Materials, your proxy card or the voting instructions that accompanied your proxy materials) to vote your shares at the Annual Meeting. *Even if you plan to participate in our virtual Annual Meeting, we recommend that you also submit your proxy or voting instructions as described above so that your vote will be counted if you are unable to, or later decide not to, participate in the live webcast of the meeting.*

If any matters are properly presented for consideration at the Annual Meeting, including, among other things, consideration of a motion to adjourn the Annual Meeting to another time (including, without limitation, for the purpose of soliciting additional proxies), the persons named in the proxy card and acting thereunder will have discretion to vote on those matters in accordance with their best judgment. We do not currently anticipate that any other matters will be raised at the Annual Meeting.

### **What if I am a beneficial owner and do not give voting instructions to my broker?**

As a beneficial owner, in order to ensure your shares are voted in the way you would like, you must provide voting instructions to your bank, broker or other nominee by the deadline provided in the materials you receive from your bank, broker or other nominee. If you do not provide voting instructions to your bank, broker or other nominee, whether your shares can be voted by such person depends on the type of item being considered for vote.

***Non-Discretionary Items.*** The election of directors, advisory say on pay and say when on pay votes, and vote to approve our 2017 Long-Term Incentive Plan are non-discretionary items and may not be voted on by brokers, banks or other nominees who have not received specific voting instructions from beneficial owners. In tabulating the voting result for any particular proposal, shares that constitute broker non-votes are not considered votes cast on that proposal. Thus, broker non-votes will not affect the outcome of any matter being voted on at the Annual Meeting, assuming that a quorum is obtained.

***Discretionary Item.*** The ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm is a discretionary item. Generally, brokers, banks and other nominees that do not receive voting instructions from beneficial owners may vote on this proposal in their discretion. We encourage you to provide instructions to your broker regarding the voting of your shares.

### **Can I change my vote or revoke my proxy?**

Any holder of our common stock has the right to revoke his or her proxy at any time prior to the voting thereof at the Annual Meeting by (1) filing a written revocation with the Secretary prior to the voting of such proxy, (2) giving a duly executed proxy bearing a later date or (3) participating in and voting electronically during the live webcast of the Annual Meeting. If you hold your shares in the name of a bank, broker or other nominee, you should follow the instructions provided by your bank, broker or nominee in revoking your previously granted proxy.

### **How are proxies solicited and who will bear the cost?**

We will bear the cost of the solicitation of proxies. In addition to solicitation by mail, our directors, officers and employees may solicit proxies from stockholders by telephone, e-mail or in person. In accordance with SEC regulations, banks, brokers and other custodians, nominees and fiduciaries also will be reimbursed by us, as

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necessary, for their reasonable expenses for sending proxy solicitation materials to the beneficial owners of our common stock. If warranted, we may engage the services of a proxy solicitor in connection with this solicitation, and would pay customary fees and expenses for these services.

**Where can I find the voting results of the Annual Meeting?**

We will announce preliminary voting results at the Annual Meeting. Voting results will also be disclosed on a Form 8-K filed with the SEC within four business days after the Annual Meeting, which will be available on our website.

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**PROPOSAL 1**

**ELECTION OF DIRECTORS**

At the Annual Meeting, seven directors, constituting the entire board of directors, are to be elected to hold office until the next annual meeting of stockholders or until their respective successors have been elected and qualified. The seven nominees for election at the Annual Meeting are listed below with their biographies. The board of directors, after careful consideration, approved the nomination of each of our currently serving directors. We are not aware of any reason why any nominee would be unable to serve as a director. If any nominee is unable to serve, the shares represented by all valid proxies will be voted for the election of such other person as the board of directors may nominate as a substitute.

The board of directors, acting through its nominating and governance committee, is responsible for nominating a slate of director nominees that collectively have the complementary experience, qualifications, skills and attributes to guide the company and function effectively as a board.

The nominating and governance committee seeks directors with established strong professional reputations and experience in areas relevant to the strategy and operations of our company's business. The nominees for director include individuals who hold or have held senior executive positions in organizations operating in industries and end-markets that our company serves and individuals who have experience serving on boards of directors and board committees of other public companies. In these positions, they have gained experience in core management skills, such as strategic and financial planning, public company financial reporting, compliance, risk management and oversight, leadership development and corporate governance practices and trends.

The nominating and governance committee believes that each of the nominees has other key attributes that are important to an effective board: integrity, candor, analytical skills, the willingness to engage management and each other in a constructive and collaborative fashion, and the ability and commitment to devote significant time and energy to service on the board of directors and its committees. The nominating and governance committee takes into account diversity considerations in determining the company's slate and planning for director succession and believes that, as a group, the nominees bring a diverse range of perspectives to the deliberations of the board of directors. Each of the nominees, other than Messrs. Sherif and de Vries, co-founders of the company, is also independent of the company and management. We believe the atmosphere of our board of directors is collegial and that all directors are engaged in their responsibilities. For additional information about our director independence requirements, consideration of director candidates, leadership structure of our boards of directors and other corporate governance matters, see "Corporate Governance and Board Matters" beginning on page 10 of this proxy statement.

In addition to the above, the nominating and governance committee also considered the specific experience described in the biographical details that follow in determining to nominate the individuals set forth below for election as directors.

**Nominees for Election**

**Tarek A. Sherif** is one of our founders. Mr. Sherif has served as our chief executive officer since 2001 and as a member of our board of directors since 2000. Prior to forming Medidata, Mr. Sherif co-managed and managed equity funds focused on public and private technology and life sciences companies, as well as holding various positions in finance. Mr. Sherif holds a B.A. in economics from Yale College and an M.B.A. in business administration and finance from Columbia University.

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Mr. Sherif brings to our board of directors detailed knowledge and unique perspective and insights regarding the strategic and operational opportunities and challenges, economic and industry trends, and competitive and financial positioning of our business. In addition, his leadership as chief executive officer of our company and his knowledge of the company's industry and business as a co-founder and chief executive officer position him well to serve as our chairman.

Director since 2000

Age 54

**Glen M. de Vries** is one of our founders. Mr. de Vries has served as our president since February 2008 and as a member of our board of directors since 1999. From 2000 to 2008, Mr. de Vries served as our chief technology officer. Mr. de Vries has over 20 years of experience in medical software development, including electronic health records and consumer-targeted products. Previously, he served as a research assistant at Columbia University focusing on both research science and creating a paperless clinical data management system. Mr. de Vries holds a B.S. in molecular biology and genetics from Carnegie Mellon University.

Mr. de Vries' significant experience as the company's co-founder, former chief technology officer and president provides our board of directors with unique perspectives and insights regarding the company's innovation and strategic vision.

Director since 1999

Age 44

**Carlos Domínguez** has served as president and chief operating officer of Sprinklr Inc., a privately held social media management software company, since January 2015. Prior to joining Sprinklr, Mr. Domínguez held various executive positions at Cisco Systems, Inc. and served as its senior vice president, office of the chairman and chief executive officer, from January 2008 to January 2015. Mr. Domínguez joined Cisco in 1992 and previously served as senior vice president of its Worldwide Service Provider Operations group from 2004 to 2008 and as a vice president for U.S. Service Provider Sales from 1999 to 2004.

Mr. Domínguez brings to our board of directors significant managerial experience, which gives him the ability to address complex management issues at the most senior levels and provide critical insights into the operational requirements of global technology companies.

Director since 2008

Age 58

**Neil M. Kurtz, M.D.** has served as president and chief executive officer of Golden Living, LLC, a privately held skilled nursing, hospice, home healthcare and institutional pharmacy company, since August 2008. Prior to joining Golden Living, Dr. Kurtz served as president and chief executive officer and a member of the board of directors of TorreyPines Therapeutics, Inc., a clinical-stage biopharmaceutical company, since 2002. Dr. Kurtz co-founded Worldwide Clinical Trials, a contract research organization, where he held the positions of president and chief executive officer until its acquisition by United Health Group, or UHG, in 1999. After the acquisition, Dr. Kurtz became president of Ingenix Pharmaceutical Services, a division of UHG, and also served as a member of the UHG Executive Board until joining TorreyPines Therapeutics, Inc. Dr. Kurtz's career includes senior positions with Boots Pharmaceuticals, Bayer Corporation, Bristol-Myers Squibb and Merck. He currently serves on the board of directors of Team Health Holdings Inc., a leading provider of outsourced physician staffing solutions for hospitals, and Golden Gate National Senior Care Holdings, and served previously on the board of directors of NeurogesX, Inc., a specialty pharmaceutical company. Dr. Kurtz holds a B.A. in psychology from New York University and an M.D. from the Medical College of Wisconsin.

Dr. Kurtz brings to our board of directors significant operational, regulatory, and financial experience as a senior executive and director in the healthcare industry.

Director since 2002

Age 66

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**George W. McCulloch** is currently a partner at Level Equity Management, LLC, a private investment firm he co-founded in 2009. Previously Mr. McCulloch served as a managing director at Insight Venture Partners, which he joined in 2003. Mr. McCulloch holds a B.A. in history from Stanford University.

Mr. McCulloch brings to our board of directors significant operational, financial, and investment experience from his involvement in Level Equity and Insight and their numerous portfolio companies.

Director since 2004

Age 40

**Lee A. Shapiro** is currently managing partner and co-founder of 7wire Ventures, a private investment firm that seeks and invests in innovative ideas and entrepreneurs mostly in the areas of healthcare and education. Previously, Mr. Shapiro was president of Allscripts Healthcare Solutions, Inc., a provider of innovative technology solutions, from 2002 to December 2012, where he oversaw the company's strategy, international operations, health plan initiatives and entrepreneurial business investments, and was a consultant to Allscripts from December 2012 to June 2013. Prior to joining Allscripts, he was the chief operating officer of Douglas Elliman-Beitler, a commercial office management and development company, where he directed all business activities throughout the United States. Mr. Shapiro's career also includes serving as president of SES Properties, Inc., vice chairman of City Financial Bancorp and practicing commercial law at Barack, Ferrazzano, Kirschbaum, Perlman & Nagelberg. Mr. Shapiro was also appointed to the Economic Recovery Commission of the State of Illinois during its seating in 2009-2010. He currently serves on the board of directors of Tivity Health, Inc. (f/k/a Healthways, Inc.), the largest independent global provider of well-being improvement solutions (where he is chair of the audit committee), and Aptus Health (f/k/a Physicians Interactive Holdings), a subsidiary of Merck. Mr. Shapiro holds a J.D. degree from The University of Chicago Law School and a B.S. in Accounting from the University of Illinois Urbana-Champaign.

Mr. Shapiro brings to our board of directors significant experience in directing strategic initiatives at a global public healthcare technology company, including mergers and acquisitions, international expansion, business development and partnerships, and business activities in the areas of analytics and information services. Our board of directors also benefits from Mr. Shapiro's experience serving on the boards of several private and not-for-profit companies.

Director since 2011

Age 61

**Robert B. Taylor**, currently our lead director, served as senior vice president for finance and administration of The Colonial Williamsburg Foundation from January 2001 to December 2014. Prior to joining The Colonial Williamsburg Foundation, Mr. Taylor previously served as vice president and treasurer of Wesleyan University from 1985 to 2001. Mr. Taylor also previously served on the board of directors of Zygo Corporation from 1988 to 2013, including as a member of its corporate governance/nominating committee and chairman of its audit committee. Mr. Taylor holds a B.A. from St. Lawrence University.

Mr. Taylor brings to his role as lead director significant experience in accounting and finance, which qualifies him as our financial expert, and operational, investment and governance experience from his role as a senior executive and chief financial officer of two large enterprises. Our board of directors also benefits from Mr. Taylor's experience serving on the boards of for profit and not-for-profit companies, including as chair of the audit committee of another public company.

Director since 2008

Age 69



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**Vote Required**

If a quorum is present at the Annual Meeting, directors will be elected by a majority of the votes cast by the holders of the shares of common stock voting electronically during the live webcast or by proxy at the meeting, meaning that a director nominee will be elected to the board of directors if the votes cast for the nominee's election exceed the votes cast against such nominee's election. Abstentions and broker non-votes are not counted as votes cast for purposes of the election of directors and, therefore, will have no effect on the outcome of such election.

**Board Recommendation**

**Our board of directors recommends a vote FOR the election to the board of directors of each of the foregoing nominees.**

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**CORPORATE GOVERNANCE AND BOARD MATTERS**

**Director Independence**

The board of directors has affirmatively determined that each of the director nominees standing for election, except Tarek Sherif as chief executive officer and Glen de Vries as president, has no relationship that, in the opinion of the board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and is independent within the meaning of the director independence standards of the company, The Nasdaq Stock Market Inc. ( NASDAQ ) and the Securities and Exchange Commission ( SEC ). Furthermore, the board of directors has determined that each member of the audit committee, the compensation committee, and the nominating and governance committee is independent within the meaning of applicable committee independence standards of the company, NASDAQ and the SEC, including Rule 10A-3(b)(1) under the Exchange Act of 1934, as amended ( Exchange Act ). In making that determination, the board of directors considered all relevant facts and circumstances, including (but not limited to) the director's commercial, industrial, banking, consulting, legal, accounting, charitable and familial relationships.

At least annually, the board of directors evaluates all relationships between the company and each director in light of relevant facts and circumstances for the purposes of determining whether a material relationship exists that might signal a potential conflict of interest or otherwise interfere with such director's ability to satisfy his or her responsibilities as an independent director. Based on this evaluation, the board of directors makes an annual determination of whether each director is independent within the meaning of the independence standards of the company, NASDAQ and the SEC.

**Board of Directors and Committees**

Our board of directors currently consists of seven members. If all of the director nominees are elected at the Annual Meeting, our board of directors will continue to consist of seven members. The board of directors is responsible for oversight of our business and affairs. To assist the board of directors in carrying out its duties, the board has delegated certain authority to four standing committees: the audit committee, the compensation committee, the nominating and governance committee, and the strategic investment and acquisition committee.

The membership of each of the audit committee, the compensation committee, and the nominating and governance committee is composed entirely of independent directors and the membership of the strategic investment and acquisition committee is composed of at least half independent directors. In determining the independence of compensation committee members, the board of directors considers the source and amount of compensation received by the members and whether the member is affiliated with the company. In addition, the members of the audit committee meet the heightened standards of independence for audit committee members required by SEC rules and NASDAQ rules.

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The committee membership and the responsibilities of each of the committees are described below.

Name	Audit	Nominating and Governance	Compensation	Strategic Investment and Acquisition
Tarek A. Sherif				
Glen M. de Vries				
Carlos Dominguez(I)				
Neil M. Kurtz, M.D.(I)				
George W. McCulloch(I)				
Lee A. Shapiro(I)				
Robert B. Taylor(I)(L)				

Chairman

Member

(I) Independent director

(L) Lead director

The board of directors has adopted a written charter for each of the four standing committees. Each committee charter is available free of charge in the Corporate Governance section of our website at <http://investor.mdsol.com/corporate-governance.cfm> or by writing to Medidata Solutions, Inc., 350 Hudson Street, 9th Floor, New York, New York 10014, c/o Corporate Secretary.

***Audit Committee***

Messrs. Taylor, Kurtz, McCulloch and Shapiro currently serve on the audit committee. Mr. Taylor is the chairman of our audit committee. The board of directors has determined that each member of the audit committee is independent within the meaning of the director independence standards of the company and NASDAQ as well as the heightened director independence standards of the SEC for audit committee members, including Rule 10A-3(b)(1) under the Exchange Act. The board of directors has also determined that each of the members of the audit committee is financially sophisticated and is able to read and understand consolidated financial statements and that Mr. Taylor is an audit committee financial expert as defined in the Exchange Act.

The composition and responsibilities of the audit committee and the attributes of its members, as reflected in the charter, are intended to be in accordance with applicable requirements for corporate audit committees. The audit committee charter will be reviewed, and amended if necessary, on an annual basis.

The audit committee assists the board in fulfilling its oversight responsibility relating to our financial statements and the disclosure and financial reporting process, our system of internal controls, our internal audit function, the qualifications, independence and performance of our independent registered public accounting firm, compliance with our code of ethics and legal and regulatory requirements. The audit committee has the sole authority to appoint, retain, terminate, compensate and oversee the work of the independent registered public accounting firm, as well as to pre-approve all audit and non-audit services to be provided by the independent registered public accounting firm.

***Compensation Committee***

Messrs. Kurtz, Dominguez and McCulloch currently serve on the compensation committee. Dr. Kurtz is the chairman of our compensation committee. The board of directors has determined that each member of the compensation committee is a non-employee director within the meaning of Rule 16b-3 of the Exchange Act



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and independent within the meaning of the director independence standards of the company and NASDAQ. In addition, each member of the compensation committee is an outside director as defined in Section 162(m) of the Internal Revenue Code. In determining the independence of our compensation committee members, the board of directors considered several relevant factors, including but not limited to the source and amount of compensation received by the members and whether the member is affiliated with the company.

The compensation committee reviews and approves our general compensation strategy and on an annual basis reviews and evaluates our executive officers' performance, and makes recommendations to the board of directors concerning compensation arrangements for all of our executive officers, including our chief executive officer. The Compensation Discussion and Analysis ( CD&A ) included in this proxy statement includes additional information regarding the compensation committee's processes and procedures for considering and determining executive officer compensation.

The compensation committee is also responsible for, among other things, administering any incentive compensation plans, equity-based compensation plans and other benefit plans and making recommendations to the board of directors with respect to such plans; reviewing and recommending compensation programs for our non-employee directors; reviewing and approving the CD&A and compensation committee report that the SEC requires in our annual proxy statement; and reviewing the succession planning for our executive officers. In addition, the compensation committee is responsible for making recommendations with respect to the frequency of say on pay votes and for reviewing the results of the say on pay votes. The compensation committee has the authority to engage independent advisors to assist it in carrying out its responsibilities and to approve any such advisor's fees and other retention terms, as well as the responsibility for oversight of the work of any independent compensation consultant or other advisor it has retained.

### ***Nominating and Governance Committee***

Messrs. Taylor, Dominguez and Shapiro currently serve on the nominating and governance committee. Mr. Taylor is the chairman of our nominating and governance committee. The board of directors has determined that each member of the nominating and governance committee is independent within the meaning of the director independence standards of the company, NASDAQ and the SEC.

The nominating and governance committee is responsible for, among other things: reviewing board composition, procedures and committees, and making recommendations on these matters to the board of directors; reviewing, soliciting and making recommendations to the board of directors and stockholders with respect to candidates for election to the board; and overseeing compliance by the board of directors and management with our corporate governance principles and ethics standards and code of conduct.

### ***Strategic Investment and Acquisition Committee***

The strategic investment and acquisition committee was created in August 2016. Messrs. Sherif, de Vries, McCulloch and Shapiro currently serve on the strategic investment and acquisition committee. Mr. Sherif is the chairman of our strategic investment and acquisition committee.

The strategic investment and acquisition committee is responsible for assisting the board in overseeing acquisitions, joint ventures and strategic investments made by the Company.

### **Majority Voting in Director Elections**

The board of directors amended our bylaws in July 2015 to adopt a majority voting standard in uncontested elections of directors, providing that a nominee for director shall be elected to the board if the votes cast for such nominee's election exceed the votes cast against such nominee's election, with a plurality vote standard retained for contested director elections, that is, when the number of director nominees exceeds the number of directors to be elected.

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In connection with this bylaw amendment, the board of directors adopted a director resignation policy providing that, with respect to director nominations, the board shall nominate for election or reelection as director only (i) candidates who agree to tender, promptly following the stockholders' meeting at which they are elected as director or (ii) incumbent directors who have tendered, in advance of such nomination, irrevocable resignations that in each case will be effective upon the failure of such director to receive the required vote at the next stockholders' meeting at which they face reelection and board acceptance of such resignation.

If an incumbent director fails to receive the required vote for reelection, the nominating and governance committee shall make a recommendation to the board as to whether to accept or reject such director's resignation as previously tendered pursuant to our corporate governance guidelines or whether other action should be taken. The nominating and governance committee and the board may consider any factors they deem relevant in deciding whether to accept or reject a director's resignation or whether other action should be taken. Within 90 days from the date the election results are certified, we will publicly disclose the board's decision and the rationale behind such decision.

### **Consideration of Director Candidates**

***Director Qualifications.*** The nominating and governance committee has not formally established any specific, minimum qualifications that must be met by each candidate for the board of directors or specific qualities or skills that are necessary for one or more of the members of the board of directors to possess.

***Identifying Nominees.*** The nominating and governance committee has two primary methods for identifying director candidates (other than those proposed by our stockholders, as discussed below). First, the nominating and governance committee will solicit ideas for possible candidates from a number of sources, including members of the board of directors and Medidata executives. Second, the nominating and governance committee is authorized to use its authority under its charter to retain at the company's expense one or more search firms to identify candidates (and to approve such firms' fees and other retention terms).

***Stockholder Candidates.*** The nominating and governance committee will consider candidates for nomination as a director submitted by stockholders. Although the nominating and governance committee does not have a separate policy that addresses the consideration of director candidates recommended by stockholders, the board of directors does not believe that such a separate policy is necessary because our bylaws permit stockholders to nominate candidates and one of the duties set forth in the nominating and governance committee charter is to consider director candidates submitted by stockholders in accordance with our bylaws. The nominating and governance committee will evaluate individuals recommended by stockholders for nomination as directors according to the criteria discussed above and in accordance with our bylaws and the procedures described under "Stockholder Proposals and Nominations" on page 65 of this proxy statement.

***Review of Director Nominees.*** In evaluating proposed director candidates, the nominating and governance committee may consider, in addition to any minimum qualifications and other criteria for board of directors membership approved by the board of directors from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, the proposed director candidate's understanding of the company's business and industry on a technical level, his or her judgment and skills, his or her depth and breadth of professional experience or other background characteristics, his or her independence, his or her willingness to devote the time and effort necessary to be an effective board member, and the needs of the board of directors. We do not have a formal policy with regard to the consideration of diversity in identifying director nominees. However, the board of directors believes that it is essential that its members represent diverse viewpoints, with a broad array of experiences, professions, skills, geographic representation and backgrounds that, when considered as a group, provide a sufficient mix of perspectives to allow the board of directors to best fulfill its responsibilities to the long-term interests of our stockholders. The nominating and governance committee considers at least annually, and recommends to the board of directors suggested changes to, if any, the size, composition, organization and governance of the board of directors and its committees.

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### **Board Meetings and Attendance**

The board of directors meets on a regularly scheduled basis during the year to review significant developments affecting us and to act on matters requiring their approval. It also holds special meetings when an important matter requires action between scheduled meetings. Members of senior management regularly attend meetings to report on and discuss their areas of responsibility. Executive sessions, excluding management, are also regularly scheduled (see section Meetings of Independent Directors below).

During 2016, the board of directors held four meetings, the audit committee held ten meetings, the compensation committee held four meetings, the nominating and governance committee held four meetings, and the strategic investment and acquisition committee held two meetings. In addition, the board of directors and its committees act by unanimous written consent from time to time.

Each director attended at least 75% of all board of directors and applicable committee meetings. Directors are expected to attend meetings of the board of directors and meetings of committees on which they serve and to spend as much time and meet as frequently as necessary to properly discharge their responsibilities. In addition, directors are encouraged to attend annual meetings of our stockholders; all directors participated in our 2016 virtual annual meeting and intend to participate in the 2017 virtual annual meeting.

### **Board Leadership Structure**

Under our corporate governance guidelines, the board of directors does not have a policy on whether or not the role of the chairman of the board and chief executive officer should be separate or combined and, if it is to be separate, whether the chairman should be selected from the non-employee directors or be an employee. The board of directors believes that Mr. Sherif's dual role as both chairman of the board and chief executive officer serves the best interests of both the company and its stockholders. His combined role enables decisive leadership, ensures clear accountability, and enhances the company's ability to communicate its message and strategy clearly and consistently to the company's stockholders, employees, customers and suppliers. Mr. Sherif possesses detailed and in-depth knowledge of the issues, opportunities and challenges facing the company and its businesses and is thus best positioned to develop agendas that ensure that the time and attention of the board of directors are focused on the most critical matters. This structure also enables our chief executive officer to act as a bridge between management and the board of directors, helping both to act with a common purpose.

The board of directors appreciates that the advantages gained by having a single chairman and chief executive officer must be viewed in light of potential independence concerns. The board considers, however, that we have adequate safeguards in place to address those concerns. In accordance with our corporate governance guidelines, our board of directors consists of a supermajority of independent directors. In addition, our audit, compensation and nominating and governance committees, which oversee critical matters such as the integrity of our financial statements, the compensation of executive management, the selection and evaluation of directors, and the development and implementation of corporate governance policies, each consist entirely of independent directors.

### **Lead Independent Director**

As a further enhancement to our governance, in July 2015, the board of directors appointed as its lead director Robert B. Taylor, a director of the company since 2008 and the current chairman of the audit committee and the nominating and governance committee. Mr. Taylor's duties and responsibilities as lead director are set forth in our corporate governance guidelines and include (but are not limited to) presiding at all meetings of the board of directors at which the chairman is not present, including executive sessions of the independent directors; serving as a liaison between the chairman and the independent directors; leading the annual CEO evaluation process; and, when appropriate, consulting and directly communicating with stockholders.

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**Board's Role in Risk Oversight**

Our board of directors as a whole has responsibility for risk oversight, with reviews of certain areas conducted by the relevant committees that report on their deliberations to the board of directors. The oversight responsibility of the board of directors and its committees is enabled by management reporting processes that are designed to provide visibility to the board of directors about the identification, assessment and management of critical risks and management's risk mitigation strategies. Areas of focus include competitive, economic, operational, financial (accounting, credit, liquidity and tax), legal, regulatory, compliance, safety and reputational risks. The board of directors and its committees oversee risks associated with their respective principal areas of focus, as summarized below.

<b>Board/Committee</b>	<b>Primary Areas of Risk Oversight</b>
Full Board of Directors	Strategic, financial and execution risks and exposures associated with the annual operating plan, and strategic planning (including matters affecting capital allocation); and other matters that may present material risk to the company's operations, plans, prospects or reputation; and acquisitions and divestitures (including through post-closing reviews) other than as overseen by the strategic investment and acquisition committee.
Audit Committee	Enterprise risk management oversight, including risks and exposures associated with financial matters (particularly financial reporting, tax, accounting, disclosure, internal control over financial reporting, financial policies, investment guidelines and credit and liquidity matters) and cyber risks.
Nominating and Governance Committee	Risks and exposures relating to our programs and policies relating to corporate governance; and director succession planning.
Compensation Committee	Risks and exposures associated with leadership assessment, management development and succession planning, and executive and employee compensation programs and arrangements, including incentive plans. The compensation committee reviews compensation arrangements and programs to ensure that they do not create incentives for employees to take excessive or inappropriate risks that could have a material adverse effect on the company.
Strategic Investment and Acquisition Committee	Oversight of strategic investments, acquisitions and joint ventures in which the company participates.

**Meetings of Independent Directors**

Our governance guidelines provide that the independent directors of the company meet in regularly scheduled executive sessions without management participation, which sessions typically occur in conjunction with the regularly scheduled meetings of the board of directors. Mr. Taylor, as lead director, presides at these meetings.



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### **Outside Advisors**

Our board of directors and each of its committees may retain outside advisors and consultants of their choosing at our expense. The board of directors need not obtain management's consent to retain outside advisors.

### **Board Effectiveness**

Our board of directors performs an annual self-assessment, led by Mr. Taylor in his capacity as lead director, to evaluate its effectiveness in fulfilling its obligations.

### **Corporate Governance Guidelines**

Our board of directors adopted corporate governance guidelines to assist and guide the directors in the exercise of their responsibilities. These guidelines should be interpreted in accordance with any requirements imposed by applicable federal or state law or regulation, NASDAQ and our certificate of incorporation and bylaws. Our corporate governance guidelines are available in the corporate governance section of our website at <http://investor.mdsol.com/corporate-governance.cfm>. Although these guidelines have been approved by the board of directors, it is expected that these guidelines will evolve over time as customary practice and legal requirements change. In particular, guidelines that encompass legal, regulatory or exchange requirements as they currently exist will be deemed to be modified as and to the extent such legal, regulatory or exchange requirements are modified. In addition, the guidelines may also be amended by the board of directors at any time as it deems appropriate.

### **Code of Business Conduct and Ethics**

Our board of directors adopted a code of ethics as defined by regulations promulgated under the Securities Act of 1933, as amended ( Securities Act ), and the Exchange Act that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The code of ethics is designed to codify the ethical standards that we believe are reasonably designed to deter wrong-doing and to promote, among other things, adherence to the following principles:

honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;

full, fair, accurate, timely and understandable financial statements;

compliance with applicable governmental laws, rules and regulations;

prompt internal reporting of violations of the code; and

accountability for adherence to the code.

We have established procedures to ensure that suspected violations of the code may be reported anonymously. A current copy of our code of ethics is available at <http://investor.mdsol.com/corporate-governance.cfm>. A copy may also be obtained, free of charge, from us upon a request directed to Medidata Solutions, Inc., 350 Hudson Street, 9th Floor, New York, New York 10014, c/o Corporate Secretary. We intend to disclose any amendments to or waivers of a provision of the code of ethics granted to directors and officers by posting such information on our website available at [www.mdsol.com](http://www.mdsol.com) and/or in our public filings with the SEC.

### **Stockholder Communications with the Board**

Stockholders and other interested parties may make their concerns known confidentially to the board of directors or the independent directors by submitting a communication in an envelope addressed to the Board of Directors, a specifically named independent director or the Independent

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Directors as a group, in care of the Secretary. All such communications will be conveyed, as applicable, to the full board of directors, the lead director, the specified independent director or the independent directors as a group.

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### **Compensation Committee Interlocks and Insider Participation**

During 2016, Messrs. Dominguez, Kurtz and McCulloch served as members of our compensation committee. No member of the compensation committee has been an officer or employee of the company, or had any other relationship with us requiring disclosure herein. None of our executive officers serves on the board of directors or compensation committee of a company that has an executive officer that serves on our board of directors or compensation committee.

### **Director Compensation**

The compensation committee has adopted a compensation structure that is applicable to all of our non-employee directors under which each such non-employee director receives the following compensation for service on our board of directors:

an annual cash retainer of \$45,000;

an additional annual cash retainer of \$30,000 for serving as chair of the audit committee, and \$12,000 for serving as a member of the audit committee;

an additional annual cash retainer of \$22,500 for serving as chair of the compensation committee and \$10,000 for serving as a member of the compensation committee;

an additional annual cash retainer of \$12,500 for serving as chair of the nominating and governance committee and \$7,000 for serving as a member of the nominating and governance committee;

an additional annual cash retainer of \$7,000 for serving as a member of the strategic investment and acquisition committee; and

upon first joining our board of directors and at each subsequent annual meeting of stockholders, an equity award valued at \$225,000 (with the Lead Director receiving an additional annual equity award valued at \$20,000). The equity awards made to the non-employee directors in 2016 consisted entirely of restricted stock, with the number of awarded shares based upon the average closing price of our common stock for the 30 trading days immediately preceding our 2016 annual meeting of stockholders. Since our directors are elected to a one-year term of office, their annual equity awards vest in full one year after the date of grant, provided the director continues to serve through such date. Such awards provide for immediate vesting upon expiration of a director's scheduled board term in the event that the director is not nominated for re-election at the next annual meeting of stockholders or is nominated for re-election but is not elected.

In addition, we reimburse our directors for all reasonable expenses incurred for attending meetings and service on our board of directors.

Our non-employee directors are covered by stock ownership guidelines adopted in August 2011. Under these guidelines, non-employee directors are required to obtain ownership of common stock equal to three times the amount of the annual cash retainer paid to non-employee directors for their service as directors within three years from the earlier of August 16, 2011 or from their date of appointment. All non-employee directors are in compliance with these guidelines as of April 3, 2017. The director stock ownership guidelines are part of our Corporate Governance Guidelines and are available at <http://investor.mdsol.com/corporate-governance.cfm>.

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Other than as provided below, there were no other arrangements pursuant to which any director was compensated during the year ended December 31, 2016 for service as a director. We do not provide any retirement benefits or other perquisites to our directors. Neither of our employee-directors received compensation during 2016 for service as a member of our board.

<b>Name(1)</b>	<b>Fees Earned or Paid in Cash (\$)</b>	<b>Stock Awards (\$)</b>	<b>Option Awards (\$)</b>	<b>All Other Compensation (\$)</b>	<b>Total (\$)</b>
Carlos Dominguez	62,000	225,000			287,000
Neil M. Kurtz	76,375	225,000			301,375
George W. McCulloch	69,625	225,000			294,625
Lee A. Shapiro	66,625	225,000			291,625
Robert B. Taylor	85,417	245,000			330,417

- (1) At December 31, 2016, the directors named in the table above held unvested restricted stock as follows: Messrs. Dominguez, Kurtz, McCulloch and Shapiro, 5,178 shares; and Mr. Taylor, 5,639 shares. In addition, at that date, the following directors held options to purchase shares of our common stock as follows: Mr. Dominguez, 37,738; Mr. McCulloch, 28,672; and Mr. Shapiro, 9,708.

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**PROPOSAL 2**

**ADVISORY VOTE TO APPROVE THE COMPENSATION OF THE NAMED EXECUTIVE OFFICERS**

**(THE SAY ON PAY VOTE )**

As we do each year, we included a non-binding advisory vote to approve the compensation of the named executive officers (also referred to as a say on pay vote ) in our 2016 proxy statement. We are gratified that at our 2016 annual meeting of stockholders, our stockholders overwhelmingly approved the proposal, with approximately 95% of the votes cast voting in favor of the proposal.

In accordance with Section 14A of the Exchange Act, this year we are again asking our stockholders to vote For the compensation of our named executive officers as disclosed in this proxy statement. In considering their vote, stockholders may wish to carefully review our compensation policies and decisions regarding our named executive officers, as described in the Compensation Discussion and Analysis and related executive compensation information beginning on page 29.

We believe that our overall compensation program and philosophy support and help drive long-term value creation, business strategy and operating performance objectives. We ask you to indicate your support for the compensation of our named executive officers as described in the Compensation Discussion and Analysis, the compensation tables and the narrative disclosures set forth in this proxy statement.

The board of directors recommends that stockholders vote FOR the following resolution:

RESOLVED, that the stockholders approve, on an advisory basis, the compensation of the company's named executive officers, as disclosed in this proxy statement, including the Compensation Discussion and Analysis, the executive compensation tables, and the related narrative.

Because your vote is advisory, it will not be binding upon the board of directors or the compensation committee. However, the board of directors values our stockholders' opinions, and the compensation committee will take into account the outcome of the vote when considering future executive compensation arrangements.

**Board Recommendation**

**Our board of directors recommends an advisory vote FOR the approval of the compensation of the named executive officers.**

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**PROPOSAL 3**

**APPROVAL OF OUR 2017 LONG-TERM INCENTIVE PLAN ( LTIP )**

**General**

We are asking our stockholders to approve our 2017 Long-Term Incentive Plan (the 2017 LTIP ). The 2017 LTIP was adopted by our board of directors on April 14, 2017, subject to approval by our stockholders at the Annual Meeting. If approved, the 2017 LTIP will replace our 2009 Long-Term Incentive Plan (the 2009 LTIP ), which has an insufficient share reserve and would otherwise expire in 2019. The 2009 LTIP would terminate, although all outstanding prior awards under the 2009 LTIP would remain outstanding in accordance with their terms. No further awards would be made under the 2009 LTIP, although shares not issued pursuant to those outstanding awards due to forfeitures, cash settlements or otherwise will be added to the share reserve and be available for future awards under the 2017 LTIP. The 2017 LTIP would allow us to continue making various forms of equity- and cash-based incentive compensation awards to our officers, employees and other eligible personnel. Our ability to make such awards has been and would continue to be a material element of our overall compensation program. Also, if approved by our stockholders, the 2017 LTIP would allow us to make incentive compensation awards that are intended to qualify for the performance-based compensation exemption from the deduction limitations of Section 162(m) of the Internal Revenue Code.

Long-term equity and other forms of incentive compensation are key components of our overall compensation program. The Board believes that our ability to grant equity-based incentive compensation under the 2017 LTIP will enable us to meet several objectives that are important to the success and growth of our business, including, for example, fostering an ownership mentality that aligns the interests of our leadership, employees and other personnel with those of our stockholders, and enabling us to attract, motivate, reward and retain talented individuals whose skills, experience and efforts are essential to the continuing success and development of our business and the enhancement of stockholder value. In determining the number of shares being requested, we considered our historical three-year burn rate, as well as the publicly disclosed views and guidelines of independent shareholder advisory firms and compensation professionals.

If the 2017 LTIP is not approved, we will soon run out of shares available under our 2009 LTIP and lose what has become an indispensable part of our compensation program. The Board believes we would therefore face serious challenges to our ability to attract and retain key executives, employees and other key personnel which, if not otherwise addressed, would adversely affect our business. Our ability to continue making incentive compensation awards that are deductible for income tax purposes would also be significantly diminished. In short, the Board believes strongly that approval of the 2017 LTIP is in the best interests of our company and our stockholders and that, if the 2017 LTIP is not approved, our business and the interests of our stockholders may be harmed.

As of February 28, 2017, 141,612 shares remained available for issuance pursuant to new awards under the 2009 LTIP.

**Certain Features of the 2017 LTIP**

The 2017 LTIP includes several features that are designed to reflect best corporate governance practices, including:

The 2017 LTIP would allow us to grant various forms of equity- and cash-based incentive compensation opportunities, including stock options, stock appreciation rights, restricted stock, restricted stock units and performance-based stock or cash awards and, in turn, provide our Compensation Committee with sufficient flexibility to structure appropriate incentives and respond to market-competitive changes in compensation practices;

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There is no evergreen provision for automatically replenishing the authorized pool of shares available for awards under the 2017 LTIP;

There are specific limitations on the number of shares issuable and the amount of cash payable under awards that may be made to any individual in any year;

Repricing of stock options and stock appreciation rights or cash buyouts of underwater stock options and stock appreciation rights is prohibited without stockholder approval;

The 2017 LTIP prohibits us from granting discounted stock options and stock appreciation rights and from granting of reload or replacement options;

Shares repurchased by us on the open market with proceeds from the exercise of stock options may not be returned to the pool of shares available for awards under the 2017 LTIP;

Awards that are continued or assumed in connection with a change in control are subject to double trigger vesting;

Awards must provide a vesting period of at least one year, subject to a 5% exception;

The 2017 LTIP prohibits the payment of dividends with respect to shares covered by unvested plan awards (although dividend equivalents may accrue with respect to shares covered by awards other than options and stock appreciation rights, subject to satisfaction of vesting conditions applicable to those awards); and

Our Compensation Committee may grant performance-based awards under the 2017 LTIP that are intended to qualify for exemption from the deduction limitations of Section 162(m) of the Code.

**Historical Use of Equity**

The following table sets forth information regarding historical awards granted for the 2014-16 period and the corresponding burn rate, which is defined as the number of shares subject to options and time-based restricted stock and PBRsUs (at target) granted each year divided by the weighted-average number of shares of common stock outstanding for that year.

Year	Options	Time-Based Restricted Stock & PBRsUs	Weighted Average Common Shares	Burn Rate
	Granted (in thousands)	Granted (in thousands)	Outstanding (in thousands)	
2016	163	1,431	55,492	2.87%
2015	171	950	53,717	2.09%
2014	214	742	52,561	1.82%
			<b>3-Year Average</b>	<b>2.26%</b>

We actively manage our long-term stockholder dilution by limiting the number of equity incentive awards granted annually. Our compensation committee carefully reviews our burn rate and total dilution levels in order to maximize stockholder value by granting only the number of equity incentive awards that it believes are necessary and appropriate to attract, reward and retain our employees.

**Summary of the 2017 LTIP**

A summary of the principal features of the 2017 LTIP is set forth below. This summary is qualified in its entirety by reference to the full text of the 2017 LTIP, set forth in Exhibit A.

*Purpose.* The purpose of the 2017 LTIP is to enable us to provide equity-based and other incentive compensation opportunities to recruit, motivate, reward and retain key executives, employees and other qualified persons who contribute or are expected to contribute to the success and growth of our company.



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*Types of Award; Eligibility.* The 2017 LTIP would enable us to grant non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units, other forms of equity-based awards and performance-based cash incentive awards to our and any of our subsidiaries employees, non-employee directors, consultants, independent contractors and other service providers and to grant incentive stock options (within the meaning of Section 422 of the Code) to our and any of our subsidiaries employees. We estimate that the total number of eligible persons currently is approximately 1,788; a total of 724 employees and directors hold outstanding equity awards.

*Authorized Shares; Share-Counting Rules.* We would be able to issue up to 1,200,000 shares of our common stock under the 2017 LTIP, plus the number of shares, if any, that cease to be subject to outstanding awards made under the 2009 LTIP without the issuance of shares (for example, due to forfeiture, termination or cash settlement). The following share counting rules will apply to determine the number of shares that are available at any time for issuance of awards under the 2017 LTIP:

the total number of shares covered by an award of stock appreciation rights that is settled in shares (and not just the number of shares issued in settlement of the award) will be deemed to have been issued and will not be available for future awards under the 2017 LTIP;

shares purchased by us with cash received from the exercise of an option will not be added to the aggregate share reserve and will not be available for future awards under the 2017 LTIP;

shares that are used or withheld to satisfy the exercise price or tax withholding obligations under stock options or stock appreciation rights will be deemed to have been issued under the 2017 LTIP and will not be available for future awards; and

the following shares will be deemed not to have been issued and will remain available for new awards under the 2017 LTIP:  
(a) shares covered by stock options or stock appreciation rights that are forfeited or otherwise terminated or canceled for any reason other than exercise; (b) shares covered by restricted stock, restricted stock unit or other awards that are forfeited; (c) shares that are used or withheld to satisfy withholding obligations with respect to awards other than stock options and stock appreciation rights; (d) shares covered by an award that is settled in cash or that otherwise terminates without shares being issued; and (e) shares issued pursuant to awards that are assumed, converted or substituted as a result of the acquisition of another company or a combination with another company.

The maximum number of shares that may be issued pursuant to incentive stock options (within the meaning of Section 422 of the Code) is 1,000,000.

*Individual Award Limitations.* No more than 300,000 shares may be covered by awards granted to any individual in any calendar year. The maximum performance-based cash incentive award that may be earned by any individual for any calendar year is \$4,000,000.

*Adjustments for Capital Changes.* In the event of a stock split, reverse stock split, stock dividend, extraordinary cash dividend or other capital change involving the outstanding shares of our common stock, the aggregate number of shares that may be issued under the 2017 LTIP, the number of Shares that may be issued pursuant to incentive stock options, the calendar year share limitation on individual awards, the number, class and exercise price of shares covered by outstanding awards and performance goals expressed in or with respect to shares will be subject to equitable adjustment in order to avoid undue dilution or enlargement of the benefits available under the 2017 LTIP and any outstanding awards.

*Administration.* In general, subject to the terms of the 2017 LTIP, the compensation committee of the board of directors, acting in its discretion, will have full authority and responsibility for administering the 2017 LTIP. The compensation committee may select the persons who will receive awards, determine the types of awards to be granted, and prescribe the terms and conditions of such awards. The compensation committee will also be responsible for construing, interpreting and applying the provisions of the 2017 LTIP and of any award made

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under the 2017 LTIP. We will indemnify the members of the compensation committee and others to whom authority is delegated for claims they may incur in connection with the administration of the 2017 LTIP, unless attributable to fraud or willful misconduct. Decisions and determinations of the compensation committee under the 2017 LTIP will be final and binding on all persons. Each award made under the 2017 LTIP must have a vesting period of at least one year from the date the award is granted, provided that the compensation committee may prescribe a shorter vesting period with respect to awards covering up to 5% of the shares issuable under the plan.

*Stock Options.* Stock options granted under the 2017 LTIP may be classified as incentive stock options (within the meaning of Section 422 of the Internal Revenue Code) or as non-qualified options (i.e., options which do not qualify as incentive stock options). The exercise price of any stock option granted under the 2017 LTIP must be at least equal to the fair market value of our common stock on the date the option is granted (110% of fair market value in the case of incentive stock options granted to ten percent stockholders). The maximum term permitted for an option granted under the 2017 LTIP is ten years (five years in the case of incentive stock options granted to ten percent stockholders). Participants who hold stock options will have no rights as a stockholder with respect to the underlying shares unless and until such shares are acquired pursuant to the exercise of the options.

*Stock Appreciation Rights.* A stock appreciation right provides the recipient with the right to receive the appreciation in the fair market value of our common stock between the date the stock appreciation right is granted and the date it is exercised. Settlement of a vested stock appreciation right will be made in the form of shares of our common stock and/or cash. The maximum term of a stock appreciation right granted under the 2017 LTIP is ten years. Participants who hold stock appreciation rights will have no rights as a stockholder with respect to the underlying shares unless, until and except to the extent such shares are acquired pursuant to the exercise of the stock appreciation rights.

*Restricted Stock.* The compensation committee may grant restricted stock awards under the 2017 LTIP, pursuant to which shares of our common stock are issued to the recipient subject to specified vesting and other terms and conditions. In general, the holder of restricted shares will have the right to vote such shares and will not have the right to receive dividends on unvested shares, although the compensation committee may award dividend equivalents subject to the same vesting, forfeiture and payment terms and conditions that apply to the restricted shares. In general, if the recipient of a restricted stock award terminates employment or service, any unvested shares will be forfeited.

*Restricted Stock Units.* The compensation committee may grant restricted stock units representing a contingent right to receive shares of our common stock in the future, subject to specified vesting and other terms and conditions. Vested restricted stock units may be settled in cash and/or shares of our common stock. The holder of restricted stock units may not vote or receive dividends with respect to the underlying shares before the units become vested and the shares are issued. The compensation committee may provide for the crediting of dividend equivalents with respect to restricted stock units, subject to the same vesting and payment conditions applicable to the corresponding restricted stock units. In general, if the recipient of restricted stock units terminates employment or service, any unvested restricted stock units (and related dividend equivalents) will be forfeited.

*Other Forms of Stock Award; Performance-Based Cash Incentive Awards.* The compensation committee may grant other forms of award under the 2017 LTIP that are denominated or payable in, valued in whole or in part by reference to, or otherwise based upon or related to, shares of our common stock, including, for example, performance share awards, performance unit awards, stock bonus awards and dividend equivalent awards. Any such other awards will be settled in the form of cash and/or shares and will be subject to any vesting and other terms and conditions prescribed by the compensation committee. In addition, the 2017 LTIP authorizes the compensation committee to make annual and/or long-term cash incentive awards that are contingent on the achievement of pre-established performance goals and such other conditions as the compensation committee may prescribe.

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*Section 162(m) Performance Awards and Goals.* Section 162(m) of the Internal Revenue Code imposes a \$1 million deduction limit on annual compensation paid to each of our Named Executive Officers (other than our Chief Financial Officer). Section 162(m) provides an exemption from the deduction limit for performance-based compensation that meets certain conditions, including a stockholder approval requirement. The 2017 LTIP authorizes our compensation committee to grant restricted stock, restricted stock units, cash and other incentive awards that are intended to qualify for this exemption. In general, a performance-based award made under the 2017 LTIP may qualify for the performance-based compensation exemption if, among other things, the amount earned under the award and/or vesting of the award is conditioned upon the attainment of objective performance goals that are pre-established by the compensation committee and that are based upon any one or more of the following performance factors, in each case taking into account such adjustments and other objective factors that the compensation committee may specify: (a) income measures (including, but not limited to, gross profit, operating income, earnings before or after taxes and/or other adjustments, or earnings per share); (b) return measures (including, but not limited to, return on assets, investment, equity, or sales); (c) cash flow return on investments, which equals net cash flows divided by owners' equity; (d) gross revenues; (e) debt measures (including, without limitation, debt multiples); (f) marked value added; (g) economic value added; (h) sales and growth metrics (including, but not limited to, iACV, subscription growth, bookings or backlog); and (i) Share price (including, but not limited to, growth measures and total shareholder return).

In establishing performance goals with respect to an award intended to qualify for the Section 162(m) performance-based compensation exemption, the performance factors listed above may be expressed solely by reference to our performance and/or the performance of any one or more subsidiaries and/or the performance of any of our or any subsidiary's divisions, business segments or business units, and may be based upon comparisons of any of the indicators of performance relative to other companies (or subsidiaries, divisions, business segments or business units of other companies) or relevant indices. Subject to compliance with the Treasury regulations under Section 162(m) of the Internal Revenue Code, the compensation committee may adjust performance goals as necessary or appropriate in order to account for changes in law or accounting rules, principles or standards or to reflect the impact of extraordinary or unusual items, events or circumstances which, if not taken into account, would result in windfalls or hardships that are not consistent with the intent and purposes of an award, including without limitation (a) restructurings, discontinued operations, extraordinary items, and other unusual or non-recurring charges, (b) an event either not directly related to our operations or not within the reasonable control of our management, (c) acquisitions and divestitures, or (d) changes in generally accepted accounting principles.

*Transferability of Awards.* In general, awards made under the 2017 LTIP may not be transferred or assigned, except under certain circumstances as may be permitted by the compensation committee.

*No Repricing of Awards.* Without the approval of our stockholders, we may not (a) reduce the exercise price of options or stock appreciation rights, (b) cancel outstanding options or stock appreciation rights in exchange for options or stock appreciation rights with a lower exercise price or (c) cancel options or stock appreciation rights in exchange for cash or securities at a time when the per share exercise price is higher than the per share fair market value of our common stock.

*Payment of Exercise Price and Tax Withholding.* In general, the exercise price under a stock option and tax withholding obligation resulting from the exercise or settlement of an option or other award may be satisfied in cash and/or in such other ways as the compensation committee may permit, including, for example, by the participant's delivery of previously-owned shares, broker-assisted cashless exercise or by our issuing a net number of shares pursuant to which we hold back shares that would otherwise be issued in connection with such exercise or settlement.

*Change in Control.* If, in connection with a change in control (as defined in the 2017 LTIP), existing awards are substituted by or converted into substantially equivalent awards for stock of the successor or acquiring company, then the substitute or converted awards will generally remain governed by the vesting and

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other terms and conditions of the original awards, subject to special rules applicable to performance-based earnout and vesting conditions. Vesting of such substitute or converted awards will accelerate, however, if, within two years after the change in control, the participant's employment is terminated by the successor or acquiring company without cause (as defined in the 2017 LTIP). If an existing award is not so substituted or converted in connection with a change in control, then the existing award will become fully vested immediately prior to the change in control, subject to special rules in the case of performance-based earnout and vesting conditions. To the extent not previously exercised or settled, an award that is not substituted or converted will be canceled at the time of the change in control in exchange for the right to receive the change in control transaction value of the award over the exercise price under the award, if any.

*Amendment and Termination.* The board of directors may amend or terminate the 2017 LTIP, provided such action does not have an adverse effect on any then outstanding awards. Amendments to the 2017 LTIP will be subject to stockholder approval if such approval is necessary in order to satisfy applicable legal or stock exchange listing requirements. Unless sooner terminated, the 2017 LTIP will expire on the tenth anniversary of the date of its approval by our stockholders (and the 2017 LTIP will not become effective if such approval is not obtained). Awards outstanding at the time of the termination or expiration of the 2017 LTIP will remain outstanding in accordance with their terms.

**Certain U.S. Income Tax Consequences**

The following is a general summary under current law of material federal income tax consequences applicable to awards made under our 2017 LTIP. This summary does not address other tax considerations, such as state, local and foreign taxes. The 2017 LTIP is not subject to any provisions of the Employee Retirement Income Security Act of 1974. This discussion is intended for general informational purposes only and not as tax advice or guidance to any participant or other person.

*Non-qualified Stock Options.* A non-qualified stock option is an option that does not qualify as an incentive stock option under Section 422 of the Internal Revenue Code. The grant of a nonqualified stock option is not a taxable event. In general, a participant who exercises a nonqualified stock option will realize ordinary income on the date the option is exercised equal to the excess of the value of the shares acquired on that date over the option exercise price paid for the shares, and we will be entitled to a corresponding deduction. The participant's tax basis for the shares will be equal to the value of the shares on the date the option is exercised, and the participant's holding period for the shares will begin on that date. Gain or loss on a subsequent sale of the shares will be long- or short-term capital gain or loss, depending on whether the sale occurs more than one year after the participant's holding period begins.

*Incentive Stock Options.* In general, no taxable event will occur upon either the grant or exercise of an option that qualifies as an incentive stock option under Section 422 of the Internal Revenue Code (although the exercise may have alternative minimum tax consequences to the participant). A participant will realize taxable income (or loss) when shares acquired upon the exercise of an incentive stock option are subsequently sold. If the participant sells the shares more than two years after the date the option is granted and more than one year after the date the option is exercised, any gain or loss realized on the sale will be long-term capital gain or loss, and we will not be entitled to a deduction. If the participant sells the shares before the end of either of those two holding periods, any gain realized on the sale will be taxable as ordinary income to the extent that the value of the shares on the date the option is exercised exceeds the option exercise price paid for the shares, and any remaining gain will be capital gain. In general, we will be entitled to a deduction equal to any ordinary income realized by the participant upon the sale of the shares.

*Stock Appreciation Rights.* The grant of a stock appreciation right is not a taxable event. In general, a participant will realize ordinary income when a stock appreciation right is exercised, equal to the value of the shares of our Common Stock and/or the amount of cash received by the participant in connection with such exercise, and we will be entitled to a corresponding deduction.

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*Restricted Stock.* In general, a participant who receives shares of restricted stock will not realize taxable income unless and until the shares become vested, at which time the participant will realize ordinary income equal to the then fair market value of the vested shares and we will be entitled to a corresponding deduction. The participant's tax basis for the shares will be equal to their fair market value on the vesting date and, upon a subsequent sale of the vested shares, the participant will realize long- or short-term capital gain or loss, depending on whether the sale occurs more than one year after the vesting date (when ordinary income was realized). A participant may make an early income election within 30 days after he or she receives an award of restricted stock, in which case the participant will realize ordinary income on the date of the award equal to the fair market value of the shares on that date, and we would be entitled to a corresponding deduction. If an early income election is made, no income would be realized if and when the shares become vested. Gain realized upon a subsequent sale of vested shares that were covered by an early income election equal to the difference between the selling price and the fair market value of the shares on the date of the restricted stock award will be treated as long- or short-term capital gain, depending on whether the sale occurs more than one year after the award date. Special rules may limit the deductibility of a loss if the selling price is less than the fair market value of the shares on the original award date.

*Restricted Stock Units and Other Awards.* In general, a participant who receives shares of our Common Stock and/or cash in settlement of a restricted stock unit award will realize ordinary income equal to the then value of the shares and/or the amount of cash he or she received, and we will have a corresponding deduction. Similarly, if a participant receives cash and/or shares pursuant to a performance unit, performance share or other form of award under 2017 LTIP, he or she will realize ordinary income upon such receipt equal to the then fair market value of the shares and/or the amount of cash received, and we will be entitled to a corresponding deduction. A participant's tax basis in any such shares will generally be equal to the value of the shares on the date that ordinary income is realized, and the participant's tax holding period for the shares will generally begin on that date. Gain or loss on a subsequent sale of the shares will be long- or short-term capital gain or loss, depending on whether the sale occurs more than one year after the participant's holding period begins.

*Section 162(m) of the Internal Revenue Code.* In general, Section 162(m) of the Internal Revenue Code imposes a \$1 million deduction limit on compensation paid by a publicly held company to its chief executive officer and each of the company's three other most highly compensated named executive officers (other than the chief financial officer). The deduction limit does not apply to certain performance-based compensation (within the meaning of Section 162(m)). It is anticipated that stock options and stock appreciation rights granted under the 2017 LTIP will qualify for the performance-based compensation exemption from the deduction limitation. In addition, the 2017 LTIP contains provisions that would allow the compensation committee to grant other forms of stock and cash awards that are intended qualify for the exemption.

*Section 409A of the Internal Revenue Code.* If an award is subject to Section 409A of the Internal Revenue Code (which relates to nonqualified deferred compensation plans), and if the requirements of Section 409A are not met, the taxable events as described above could apply earlier than described, and could result in the imposition of additional taxes and penalties to the participants. It is anticipated that all awards made in compliance with the terms of the 2017 LTIP will be exempt from the application of Section 409A or will comply with the requirements of Section 409A in order to avoid such early taxation and penalties.

## **New Plan Benefits**

Future grants under the 2017 LTIP will be made at the discretion of the compensation committee and, accordingly, are not yet determinable. In addition, benefits under the 2017 LTIP will depend on a number of factors, including the fair market value of our common stock on future dates. Consequently, it is not possible to determine the benefits that might be received by participants in connection with grants under the 2017 LTIP.

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**Vote Required**

Approval of our 2017 Long-Term Incentive Plan requires the affirmative vote of a majority of the shares of common stock present (including electronically) or represented by proxy and entitled to vote on the matter. Abstentions from voting on this proposal will have the practical effect of a vote against this proposal because an abstention results in one less vote for the proposal. Broker non-votes will have no effect on this proposal.

**Board Recommendation**

**Our board of directors recommends that the stockholders approve the 2017 Long-Term Incentive Plan.**

**Table of Contents****EXECUTIVE OFFICERS****Executive Officers**

The following table sets forth certain information with respect to the persons serving as executive officers of Medidata as of April 3, 2017.

Name	Age	Position
Tarek A. Sherif	54	Chairman, Chief Executive Officer and Director
Glen M. de Vries	44	President and Director
Rouven Bergmann	44	Chief Financial Officer
Michael Capone	50	Chief Operating Officer
Michael Otner	46	Executive Vice President General Counsel and Corporate Secretary
Michael Pray	51	Executive Vice President General Manager of Global Sales
Mary Weger	58	Executive Vice President Human Resources

Set forth below is a brief description of the business experience of our executive officers who are not also directors of Medidata.

**Rouven Bergmann** joined us as our chief financial officer in May 2015, bringing with him significant software business experience in corporate strategy, managing growth, risk and performance management, and financial planning and reporting. Prior to joining the company, Mr. Bergmann worked in various leadership positions at SAP, most recently serving as chief financial officer of SAP North America from March 2014 to April 2015. Mr. Bergmann previously served as chief operating officer for SAP's global R&D organization (2012-2014), chief financial officer for SAP's technology, innovation and cloud division (2010-2012), chief financial officer for SAP's Business Objects division (2008-2010), chief financial officer for SAP India (2007-2008) and led SAP's corporate financial planning & analysis process (2005-2007). Mr. Bergmann earned masters degrees in mechanical engineering and business administration from Technical University of Kaiserslautern in Germany and a PhD in economics and finance from the University of Munich in Germany.

**Michael Capone** joined us as our chief operating officer in October 2014, bringing with him over 25 years' experience in guiding product development, information technology, and operations. Prior to joining Medidata, Mr. Capone worked in various executive positions at Automatic Data Processing, Inc. (ADP), serving as corporate vice president of product development and chief information officer of ADP (from July 2008 to September 2014), and senior vice president and general manager of ADP's Global HR/Payroll Outsourcing Business (from July 2005 to June 2008). Mr. Capone holds a B.S. in Computer Science from Dickinson College and an M.B.A. in finance from Pace University.

**Michael Otner** has served as our general counsel and corporate secretary since November 2007 and was promoted to executive vice president in February 2013. Prior to joining us, Mr. Otner served as associate general counsel, vice president and assistant secretary of The BISYS Group, Inc. from 2005 to 2007, where he was responsible for a broad range of SEC and general corporate matters, as well as legal support for the company's private equity services business. Mr. Otner previously held various counsel roles of increasing responsibility at GlobespanVirata, Inc. and Conexant Systems, Inc., including serving as general counsel at both companies. Mr. Otner began his legal career specializing in corporate and securities law at Olshan (formerly, Olshan Grundman Frome Rosenzweig & Wolosky LLP), a law firm based in New York City. Mr. Otner holds a J.D. from Case Western Reserve University School of Law and a B.B.A. in marketing from the University of Wisconsin-Madison.

**Michael Pray** has served as our executive vice president general manager of global sales since October 2016. Prior to joining us, Mr. Pray served as chief revenue officer of Tangoe from July 2015 to October 2016, where he was responsible for revenue, demand generation, new business development, alliances,

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client retention, and overall go-to-market strategy. Prior to that, Mr. Pray spent 14 years at IBM where he held several executive positions, including vice president of IBM Analytic Solution Sales, and vice president of Enterprise Content Management Sales for IBM Software Group. Mr. Pray earned a Bachelor's degree from the University of Michigan.

**Mary Weger** has served as our executive vice president - human resources since February 2017. Prior to joining us, Ms. Weger served as the interim chief human resource officer for Synergy Pharmaceuticals from July 2016 to February 2017, and concurrently as an executive human resources consultant at Edge Therapeutics, Inc. Prior to that, she served at Aegerion Pharmaceuticals from December 2011 to January 2016, first as senior vice president, human resources, and then as chief performance officer. Ms. Weger joined Celgene in 2001 and was instrumental in its global growth as SVP, global human resources, while also supporting Clinical Development Strategy and Effectiveness. She has also held senior human resource positions at Nabisco. Ms. Weger holds a M.A. in human resource management from Fairleigh Dickinson University, a Masters Certificate and Six Sigma Black Belt from Villanova University, and a B.S. in business administration from Fairleigh Dickinson University.

## **Compensation Discussion and Analysis**

This Compensation Discussion and Analysis ( CD&A ) is intended to assist our stockholders in understanding our executive compensation program by providing an overview of our executive compensation-related philosophy, policies, practices, and decisions. It also explains how we determined the material elements of compensation for our named executive officers (as in accordance with SEC rules), who for 2016 were:

**Tarek A. Sherif**, our Chairman and Chief Executive Officer (our CEO );

**Glen M. de Vries**, our President;

**Rouven Bergmann**, our Chief Financial Officer (our CFO );

**Michael Capone**, our Chief Operating Officer;

**Michael Otner**, our Executive Vice President - General Counsel; and

**Michael Pinto**, our former Executive Vice President, General Manager of Global Sales\*

\* Mr. Pinto entered into a separation agreement with the company in January 2017. In compliance with SEC rules, information regarding Mr. Pinto's compensation is being included in this proxy statement because he was one of the three most highly compensated officers (other than our CEO and CFO) in 2016, though not an executive officer at December 31, 2016.

Specifically, this CD&A provides an overview of our executive compensation philosophy, the overall objectives of our executive compensation program, and each compensation element that we provide to our named executive officers. In addition, it explains how and why our compensation committee arrived at specific compensation decisions for 2016 for our named executive officers. It should be read together with the executive compensation tables and related disclosures set forth below. This discussion contains forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs.



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To assist our stockholders in locating important information, this CD&A is organized as follows:

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**Overview**

Medidata is focused on clinical development in life sciences, using the latest technology to help our clients bring their new treatments to the public. Our leaders and employees are critical to the achievement of our mission and purpose. Our values include teamwork, integrity and collaboration and are built upon a culture of accountability and results orientation. The goal of our executive compensation program is to attract, motivate and retain industry-best executive talent. We believe that executive compensation should support our company strategy and business objectives and encourage increased stockholder value. We maintain compensation plans and arrangements that link executive compensation to the achievement of key financial measures, including revenue and profitability, and other stockholder value creation measures. To achieve our objectives, we use a mix of compensation elements including base salary, performance-based cash incentives, long-term incentive compensation in the form of equity awards and employee benefits.

***2016 Business Highlights***

We exceeded our financial objectives for the year and demonstrated strong financial and business performance in 2016:

Revenue grew to a record \$463.4 million (100.3% of target), representing an increase of \$70.9 million or 18% year over year.

Subscription revenue was a record \$394.3 million, an increase of \$58.1 million or 17% over 2015.

EBITDAO (earnings before interest, taxes, depreciation, amortization and stock-based compensation, as further described below) grew approximately 20% to \$106.7 million (101.2% of target).

GAAP net income was \$29.0 million, up 120% over 2015.

Key investments in our platform resulted in strong backlog growth during 2016, providing momentum entering 2017. Total multi-year subscription backlog increased by 34% to a record level of \$745 million at December 31, 2016.

***Total Stockholder Return***

Our one-year total stockholder return (TSR) (measured by comparing the closing price of our common stock on NASDAQ on December 31, 2016 vs. December 31, 2015) was approximately 1%. Our three-year TSR (comparing our closing price on December 31, 2016 vs. December 31, 2013) was approximately 18%, due to our stock price at the beginning of the 3-year period being near an all-time high for our shares since our initial public offering. As illustrated by the following graph, our five-year TSR (comparing our closing price on December 31, 2016 vs. December 31, 2011) was a very strong 356.74%, significantly outpacing that of the Russell 2000 Total Return Index for the same period (96.45%).



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***2016 Say-on-Pay Vote***

We conducted an advisory vote on the 2015 compensation of our named executive officers (a “say-on-pay” vote) at our 2016 annual meeting of stockholders. Approximately 95% of the shares that were voted on this proposal were cast in favor of our named executive officers’ compensation. We appreciate this extremely positive feedback and consider it a reflection of our senior management team’s continued constructive dialogue with our major stockholders and the resulting actions taken by our board of directors with respect to our executive compensation program. We conducted our additional investor outreach in 2016 with the following major stockholders (representing more than 36% of our outstanding shares, based on their then-current SEC filings): Brown Capital Management, FMR, Sands Capital Management, Champlain Investment Partners, JP Morgan Asset Management, and ClearBridge Investments.

***Further Executive Compensation Program Decisions for 2017***

Based on investor feedback, as well as peer-group benchmarking and other input from our compensation committee advisor, the compensation committee has made the following additional improvements to our executive compensation structure for 2017:

***CEO and President Salaries Not Increased*** Despite a strong 2016 performance year in which we exceeded our financial and business goals, our CEO and President elected not to accept a salary increase for 2017 due to our negative 3-year (2014-16) TSR. While our TSR performance trend is well ahead of the Russell 2000 Total Return Index as a continuous metric, our absolute and relative TSR performance for the 3-year 2014-16 period was not reflective of our strong long-term performance.

***CEO and President Equity Mix Weighted Further Toward Performance-Based*** The ratio of performance-based to time-based equity granted to our CEO and President was increased from 50/50 in 2016 to 60/40 in 2017, thereby continuing to link increased pay to the company’s future performance.

***Performance-Based Equity Criteria Broadened*** Responding to investor suggestions to utilize more than one metric in determining PBRSU earnouts, our compensation committee added three-year GAAP net income attainment to the existing metric of three-year TSR relative to the Russell 2000 Index for the 2017 PBRSU awards. GAAP net income and relative TSR will each determine the earnout of 50% of the PBRSU awards at the end of the three-year performance period.

**Table of Contents****2016 Executive Compensation Summary**

Consistent with our performance and compensation philosophy, the compensation committee took the following actions with respect to our named executive officers' 2016 compensation:

Named Executive Officer(1)	2016 Base Salary Increase from 2015	Annual Bonus Paid in 2017 for 2016 Performance, as a Percentage of Target Bonus	2016 Annual Time-Based Restricted Stock Award (# of shares)	2016 Annual PBRUS Award at target (total # of units that may be earned in 2019)(2)	# of shares of 2015 Annual PBRUS Award earned based on 2015-2016 Performance(3)	2016 Transition Awards(4)
Tarek A. Sherif	3.6%	112%	76,472	76,472	28,317	12,745
Glen M. de Vries	3.6%	112%	76,472	76,472	28,317	12,745
Rouven Bergmann	0%	122%	19,118	19,118	0(5)	25,491
Michael Capone	5.6%	127%	25,491	25,491	9,439	50,981
Michael Otner	3.6%	109%	12,745	12,745	5,663	0

- (1) Mr. Pinto is not included in the above table and certain others because his compensation for 2016 was determined under the terms of his separation arrangement with the company. Mr. Pinto's 2016 compensation is fully set forth in the Summary Compensation Table and also as appropriate in the discussion below of each primary compensation element.
- (2) This column reflects the target number of shares that may be earned based on our relative TSR compared to the Russell 2000 Index for the three-year period from January 1, 2016 through December 31, 2018. Up to 200% of the target number of shares may be earned at the end of the performance period based on our actual performance.
- (3) This column reflects the second tranche of the 2015 Annual PBRUS Award earned based on our two-year relative TSR compared to the Russell 2000 Index for the two-year period from January 1, 2015 through December 31, 2016. These PBRUSs were earned at 127% of target based on our relative TSR of 18.61% for that period.
- (4) This column represents shares of time-based restricted stock granted in early 2016 to certain NEOs in connection with our transition to a 3-year performance period for PBRUSs (transition awards). These awards vest 33% annually on each anniversary of the grant date.
- (5) Mr. Bergmann joined us in May 2015, and was therefore not present when the 2015 Annual PBRUS Awards were made.

**Emphasis on Variable and Performance-Based Compensation**

The annual compensation earned by our executive officers, including our named executive officers, varies from year to year based on our corporate financial and operational results and individual performance. Consistent with our compensation philosophy, our executive compensation program emphasizes variable pay (including an annual cash bonus opportunity under our annual bonus plan and long-term incentive compensation in the form of equity awards for which the value will fluctuate based on our stock price) over fixed pay (in the form of base salary) and seeks to balance short-term and long-term incentives, as well as performance-based and time-based incentives to align executive compensation to shareholder interests.

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As illustrated in the following chart, 92.5% of the target total direct compensation of our CEO and our President in 2016 consisted of variable pay, with only 7.5% classified as fixed pay.

The compensation committee believes that our executive compensation program continues to reflect a strong pay-for-performance orientation and is well-aligned with the interests of our stockholders, as reflected in the chart above. A significant portion of the target total direct compensation of our named executive officers is performance-based, with the realization of compensation dependent upon the achievement of our performance objectives designed to enhance stockholder value.

Performance-based pay, consisting of target annual cash bonuses and performance-based restricted stock units ( PBRsUs ), made up 50.0% of target total direct compensation for each of our CEO and President in 2016. The PBRsUs granted in 2016 ( 2016 PBRsU Awards ) will be earned at the end of a three-year performance period based on our relative three-year TSR (December 31, 2015 – December 31, 2018) compared to the Russell 2000 Index. By making relative TSR the basis for earning the 2016 PBRsU Awards, we aligned the ultimate outcome of the 2016 PBRsU Awards with our stockholders' return.

Non-performance based pay, consisting of base salary and time-based restricted stock, made up the other 50% of target pay for each of our CEO and President for 2016. Also, our CEO and President each received a one-time grant of additional time-based restricted stock as transition awards in 2016. The transition awards were made in conjunction with the adoption of a 3-year cliff performance period for the 2016 PBRsUs, replacing 2015 and prior PBRsU programs that vested in increments on an annual basis. As such, these one-time transition awards in 2016 were designed to serve as an additional retention tool for our CEO and President until the three-year cliff vesting of the PBRsUs is fully phased in.

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Similar allocations apply to our other executive officers, including our other named executive officers. The following chart shows the percentages of target performance-based pay versus non-performance-based pay for our CEO and our other named executive officers determined in February 2016:

Named Executive Officer	Non-Performance-Based Pay (Salary + Time-Based Restricted Stock Award Economic Value at Time of Grant)(1)	Non-Performance-Based Pay Percentage of Total	Target Performance-Based Pay (Target Annual Cash Bonus for 2016 + 2016 PBRUS Award at Target Economic Value at Time of Grant)(2)	Target Performance-Based Pay Percentage of Total	2016 One-Time Transition Awards(3)
Tarek A. Sherif	\$ 3,570,000	50%	\$ 3,570,000	50%	\$ 500,000
Glen M. de Vries	\$ 3,570,000	50%	\$ 3,570,000	50%	\$ 500,000
Rouven Bergmann	\$ 1,200,000	54.6%	\$ 997,500	45.4%	\$ 1,000,000
Michael Capone	\$ 1,475,000	50.6%	\$ 1,439,375(4)	49.4%	\$ 2,000,000
Michael Otner	\$ 836,750	55.6%	\$ 668,375	44.4%	0
Michael Pinto	\$ 825,000	50%	\$ 825,000	50%	\$ 500,000

- (1) For time-based restricted stock award component, represents dollar amount (economic value) approved by our compensation committee; excludes transition awards described below.
- (2) For PBRUS award component, represents dollar amount (economic value) approved by our compensation committee.
- (3) This column represents time-based restricted stock grants in connection with our transition to a 3-year performance period for PBRUS ( transition awards ). These awards vest 33% annually on each anniversary of the grant date.
- (4) Mr. Capone s target annual bonus was increased from 70% of his base salary to 100% of his base salary in light of his increased responsibilities managing the company s global sales organization. The target amount reported in the table above reflects this increase, applied pro rata from April 1, 2016 through December 31, 2016.

**Executive Compensation Best Practices**

We endeavor to maintain best practices in our executive compensation program, including compensation-related corporate governance standards, consistent with our executive compensation philosophy. During 2016, the following executive compensation policies and practices were in place, promoting overall corporate performance and behaviors that serve our stockholders long-term interests:

**What We Do**

**Compensation Committee Independence** Our board of directors maintains a compensation committee comprised solely of independent directors who have established effective means for communicating with our stockholders and regularly engage in stockholder outreach regarding their executive compensation ideas and concerns.

**Compensation Committee Advisor** The compensation committee engages and retains its own advisors. During 2016, the compensation committee engaged Radford, an Aon Hewitt Company ( Radford ), a national executive compensation consulting firm, to assist with its responsibilities. Radford performs no consulting or other services for us.

**Annual Compensation Review** The compensation committee conducts an annual review of our executive compensation philosophy and strategy, including a review of the compensation peer group used for comparative purposes.



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***Compensation-Related Risk Assessment*** We mitigate undue risk, including the use of multiple performance factors in determining our annual cash bonuses, so that employees do not focus on a single financial measure, and multiple-year vesting of our equity awards to support long-term stockholder value creation.

***Emphasize Performance-based Incentive Compensation*** We tie pay to performance. A significant portion of executive pay is not guaranteed. For example, as indicated above, performance-based compensation represented more than 44% of the target total direct compensation opportunity for each of our named executive officers in 2016. We set clear financial goals for corporate performance and differentiate based on individual achievement. The compensation committee regularly reviews how executive pay aligns with our financial performance.

***Emphasize Long-Term Equity Compensation*** The compensation committee uses equity awards to deliver long-term incentive compensation opportunities to our executive officers, including our named executive officers. These equity awards vest or may be earned over multi-year periods, which better serves our long-term value creation goals, our retention objectives and our shareholder interests.

***Limited Executive Perquisites*** We provide modest amounts of perquisites or other personal benefits to the named executive officers, which serve a sound business foundation. In addition, the named executive officers participate in our health and welfare benefit programs on the same basis as all our employees.

***Stock Ownership Policy*** We have adopted meaningful stock ownership guidelines for our executive officers, which require each to own a specified amount of our common stock, and therefore significantly aligns their interests with our stockholders' interests.

***Executive Incentive Compensation Recoupment Policy*** We have adopted a compensation recovery ( clawback ) policy that provides for the recoupment of cash incentive compensation from our executive officers in the event of a financial restatement resulting from the misconduct of an executive officer.

***Double-Trigger Change in Control Arrangements*** We have reasonable double trigger change in control arrangements, which provide payments and benefits to an eligible executive officer only if there is both the occurrence of a change in control of the company and the involuntary or constructive termination of employment of the individual within a designated protection period.

***Prohibitions on Hedging*** All employees are prohibited from engaging in hedging transactions in our common stock shares.

***Succession Planning*** Our board of directors annually reviews a comprehensive succession strategy which ensures plans are in place for critical positions, mitigating risks should turnover occur for any reason.

**What We Do Not Do**

- × ***Retirement Programs*** We do not have a retirement plan that provides benefits to our executive officers beyond our broad-based 401(k) plan for employees.
- × ***No Tax Gross-Ups or Payments*** We do not provide any gross-ups or tax payments in connection with any compensation element (other than de minimis amounts relating to travel expenses for employee participants' partners for our President's Club sales awards meeting) or any excise tax gross-up or tax reimbursement in connection with any change in control payments or benefits.



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- × ***No Employment Agreements*** We have no employment agreements or multi-year compensation guarantees for any of our named executive officers.
  
- × ***No Stock Option Repricing*** Our equity plan prohibits the repricing of options without stockholder approval.

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### **Compensation Philosophy and Guiding Principles**

Our executive compensation programs are designed to:

attract and retain talented and experienced executives by offering market competitive compensation programs;

motivate key executives to achieve strategic business initiatives and to reward them for their achievements;

support a strong pay-for-performance environment that differentiates bonus targets among our executives based on their responsibilities and contributions toward company performance; and

align the interests of our executives with the long-term interests of our stockholders through equity awards whose value over time depends upon the market value of our common stock.

To achieve these objectives, our executive compensation program provides a mix of compensation elements, including base salary, annual cash bonus opportunities, long-term incentive compensation in the form of equity awards, and broad-based employee benefits. In addition to these key elements of compensation, our executive compensation program includes double-trigger termination change in control protections.

In summary, our pay-for-performance philosophy places a much greater emphasis on the at-risk earnings of our named executive officers so that their interests fully align with the interests of our stockholders. The compensation committee therefore awards significant levels of at-risk compensation in the form of performance-based equity awards that are directly tied to our financial performance and the creation of stockholder value. The weighting among the compensation components is structured such that a majority of an executive officer's target total direct compensation will be incentive-based (annual cash bonuses and equity awards), rather than fixed (base salary). Our compensation committee believes that this structure strongly emphasizes the performance-based, shareholder-aligned nature of our compensation program.

### **CEO and President Compensation**

The compensation committee considers the company fortunate to have, in Messrs. Sherif and de Vries, founders who have provided continuous leadership and guidance as co-leaders of the company. Given the long-term complementary nature of their co-leadership responsibilities, which continues to provide strong vision, purpose, continuity and stability to our company culture and results, the compensation committee has determined that it is appropriate to compensate them at a commensurate level. To reflect this unique management structure and to prevent compensating each of our co-leaders at the higher chief executive officer level, when developing compensation recommendations for our CEO and President, the compensation committee considers the *average* pay of the two highest-paid executives at the companies in our compensation peer group with separate CEO and President positions.

### **Compensation-Setting Process**

At the direction of our board of directors, the compensation committee endeavors to ensure that the compensation programs for the executive officers of the company and its subsidiaries are competitive and consistent with market practice to attract and retain key executives critical to our long-term success. The compensation committee ensures that the compensation is attractive to key executives with the background and experience needed for our future growth. The compensation committee believes that our overall financial performance and long-term stockholder value should be the most important factors in determining the total compensation of our executive officers. At the executive officer level, the compensation committee has a policy that a significant proportion of target total direct compensation should consist of variable, performance-based components, such as PBRUS awards and annual cash bonuses, which can increase or decrease to reflect changes in company and individual performance.

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The compensation committee evaluates the total compensation of our executive officers, including our named executive officers, in light of information regarding the compensation practices and corporate financial performance of similar companies in our peer group. Market compensation levels are important inputs into the decision-making process. Additional factors considered include job scope, individual skills/experience, relative importance of the individual's role, internal pay equity, historical pay levels, equity holdings, and recent company performance.

### ***Role of the Compensation Committee***

The compensation committee determines all compensation for our CEO and President and (taking into account our CEO's recommendation) also for our other executive officers, including base salaries, annual cash bonuses and long-term incentive compensation in the form of equity awards. The compensation committee directs management, including our CEO, to prepare reports and recommendations for the review, discussion, modification and final approval by the compensation committee with respect to various aspects of our executive officers' total compensation. The compensation committee believes, for example, that the executive officers have greater day-to-day insight into the key metrics on which company performance should be evaluated. Consequently, the compensation committee directs our CEO, and for certain matters, our CFO or executive vice president - human resources, to prepare recommendations with respect to appropriate qualitative and quantitative criteria on which our executive officers' performance might be based. In the case of determining the compensation of our CEO and President, the compensation committee meets outside the presence of our CEO and President.

The compensation committee considers many factors in setting pay levels. Factors considered in setting the compensation levels for individual executive officers include the executive's experience, role and responsibilities, past performance, expected future contributions, criticality to the organization, competitive market data and internal equity between executives.

When reviewing external market data, the compensation committee generally considers the middle two quartiles (*i.e.*, from the 25th to the 75th percentiles) as the competitive market, but does not specifically target a specific pay percentile for setting compensation levels because it considers multiple market sources (which do not always agree with one another), and our executive officers' positions and responsibilities do not always match well with the positions referenced in the market data. Rather, the purpose of this analysis is to determine whether the compensation offered to each executive officer, both in total and with respect to each of the constituent components, is competitive with the applicable market comparables that the compensation committee has reviewed for the corresponding period. Where total compensation or a specific component of compensation is not within a competitive range, the compensation committee uses the competitive market data as one factor in making its compensation decision, but may also take into account factors specific to an executive officer as described in the previous paragraph.

The compensation committee considers these reports and recommendations in discharging its duties with respect to reviewing and setting the compensation of our executive officers, including our named executive officers. Other resources that our compensation committee may rely upon include the individual director's respective experience and recommendations, recommendations of Radford, and competitive market data provided by Radford or management.

### ***Role of our CEO and Other Management***

Generally, our internal personnel responsible for our compensation analysis attend a portion of each compensation committee meeting and leave before certain executive sessions. No executive officer is present or participates directly in the compensation committee final determinations regarding the amount of any component of his or her own compensation. However, given his responsibilities for managing the performance of our executive officers, our CEO plays a primary role in establishing the performance goals for, and evaluating the

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performance of, our other executive officers. The compensation committee solicits and considers his evaluations and recommendations, including his recommendations regarding compensation each year.

### ***Role of Compensation Consultant***

The compensation committee has the authority under its charter to engage the services of outside advisors, experts and others to assist the committee. For purposes of its 2016 executive compensation review, the compensation committee directly retained the services of Radford, a national executive compensation consulting firm. Radford reviewed and advised on all principal aspects of the executive compensation program, including, but not limited to:

providing recommendations regarding the composition of our compensation peer group;

analyzing compensation peer group data, compensation survey data, and other publicly available data (including applying its experience with other companies); and

reviewing and advising on executive compensation.

For 2016, Radford also assisted the compensation committee with our equity compensation strategy, including the appropriate mix and weight of different equity vehicles. Representatives of Radford attend meetings of the compensation committee as requested and also communicate with the compensation committee outside of meetings. Radford reports to the compensation committee rather than to management, although Radford will meet with members of management for purposes of reviewing the market data it compiles and analyzes, gathering information on current compensation practices and providing feedback to management on proposals that management may make to the compensation committee. As part of its engagement, Radford also assists with reviewing and advising on compensation-related disclosures.

The compensation committee may replace Radford or hire additional advisors at any time. Based on the consideration of the various factors as set forth in the rules of the SEC and NASDAQ, the compensation committee has determined that Radford is independent and does not believe that its relationship with Radford and the work of Radford on behalf of the compensation committee have raised any conflict of interest.

### ***Compensation Peer Group***

In the course of its deliberations, the compensation committee assesses our executive compensation program and each individual element of compensation against the competitive market, as represented by a group of publicly-traded peer companies. In August 2015, with the assistance of Compensia, Inc. (the company's compensation committee advisor at that time), the compensation committee evaluated and updated our compensation peer group using the following criteria:

companies with similar revenue and market capitalization as us;

software, healthcare technology and software-as-a-service companies; and

companies against which the compensation committee believes we compete for talent and for stockholder investment.

As a result of this process, the compensation committee approved an updated compensation peer group in August 2015 consisting of the following 19 companies:

Aspen Technology, Inc.

athenahealth, Inc.

Blackbaud, Inc.

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Bottomline Technologies, Inc.

BroadSoft, Inc.

comScore, Inc.

Constant Contact, Inc.

Cornerstone OnDemand, Inc.

Infoblox Inc.

LogMeIn, Inc.

Manhattan Associates, Inc.

NetSuite Inc.

Omnicell, Inc.

RealPage, Inc.

SolarWinds, Inc.

Synchronoss Technologies, Inc.

Tableau Software, Inc.

The Ultimate Software Group, Inc.

Veeva Systems Inc.

Revenues of the compensation peer group ranged from \$229 million to \$796 million, with a median of \$428 million, for the four quarters completed as of June 30, 2015; market capitalization of the peer group ranged from \$920 million to \$8.327 billion, with a median of \$2.06 billion, as of July 2, 2015; and headcount of the peer group ranged from 691 to 3,875 employees, with a median of 1,400 employees, as of the end of each company's most recently completed year. Our revenue for the same four quarters was \$351 million, our market capitalization as of July 2, 2015 was \$3.076 billion, and we had 1,077 employees at the time of the 2015 peer group evaluation.

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The compensation committee conducted another peer group review, with the assistance of Radford, using similar criteria in August 2016, to be used in connection with its compensation deliberations with respect to 2017. The August 2016 review resulted in the removal of three companies (comScore, Constant Contact and SolarWinds) from, and the addition of two companies (Guidewire Software and Proofpoint) to the peer group, which numbers 18 companies.

The compensation committee intends to continue reviewing the compensation peer group annually, recognizing that our compensation policies and practices must be competitive in the marketplace, aligned to a relevant set of peer companies, and this peer group information is useful in assessing the reasonableness and appropriateness of individual executive compensation elements and of our overall executive compensation packages. This information is only one of several factors that the compensation committee considers, however, in making its decisions with respect to the compensation of our executive officers.

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**Compensation Elements**

The three primary elements of our executive compensation programs are: (1) base salary, (2) annual cash bonus opportunities, and (3) long-term incentive compensation in the form of equity awards, as described below:

Compensation Element	What This Element Rewards	Purpose and Key Features of Element
Base salary	Individual performance, level of experience, expected future performance and contributions.	Provides competitive level of fixed compensation determined by the market value of the position, with actual base salaries established based on the facts and circumstances of each executive officer and each individual position.
Annual cash bonuses	Achievement of pre-established corporate performance objectives for the year (and individual performance objectives for our named executive officers other than the CEO and President).	Motivate executive officers to achieve specific company and individual performance objectives.
Long-term incentive compensation	Achievement of corporate performance objectives designed to enhance long-term stockholder value and attract, retain, motivate, and reward executive officers over extended periods for achieving important corporate objectives.	Generally, performance levels are established to encourage our executive officers to achieve or exceed performance objectives. Time-based equity awards vest over several years, providing a variable at risk pay opportunity. Because the ultimate value of these equity awards is directly related to the market price of our common stock, and the awards are only earned over an extended period of time subject to vesting requirements, they serve to focus executive officers on the creation of sustainable long-term stockholder value. In addition, a substantial percentage of each equity award for our executive officers is in the form of Performance-Based Restricted Stock Unit ( PBRSU ) awards, with respect to which shares will be earned only if our performance meets or exceeds criteria established at the time of the PBRSU award, thus further encouraging our executive officers to attain key corporate objectives over time. Starting with our 2016 awards, PBRSU award performance periods have been increased to a full three years.



**Table of Contents****Base Salary**

In 2016, the compensation committee reviewed the base salaries of our executive officers, including our named executive officers, focusing on the competitiveness of these salaries, based on compensation survey data and our select peer group. Based on that information, a review of each named executive officer's performance, the recommendations of our CEO (other than with respect to his base salary and the base salary of our President), and the factors described above, the compensation committee approved base salary increases for certain of the named executive officers.

The base salaries of our named executive officers for 2016 were set as follows:

Named Executive Officer	2015 Base Salary	2016 Base Salary	Percentage Adjustment
Tarek A. Sherif	\$ 550,000	\$ 570,000	3.6%
Glen M. de Vries	\$ 550,000	\$ 570,000	3.6%
Rouven Bergmann	\$ 450,000(1)	\$ 450,000	0%
Michael Capone	\$ 450,000	\$ 475,000	5.6%
Michael Otner	\$ 325,000	\$ 336,750	3.6%
Michael Pinto	\$ 325,000(2)	\$ 325,000	0%

- (1) In connection with his appointment as our Chief Financial Officer in May 2015, the compensation committee set Mr. Bergmann's initial annual base salary at \$450,000.
- (2) In connection with his appointment as our Executive Vice President – General Manager of Global Sales in October 2015, the compensation committee set Mr. Pinto's initial annual base salary at \$325,000.

The base salaries of our named executive officers during 2016 are set forth in the 2016 Summary Compensation Table below.

**Annual Cash Bonuses**

Performance-based cash bonuses are paid to our executive officers, including our named executive officers, based on the achievement of corporate performance objectives and a qualitative assessment of the executive officer's individual performance, each as determined by the compensation committee. These corporate objectives may change from year to year as our company and market conditions continue to evolve and different priorities are established in the discretion of the compensation committee. Annual cash bonuses are paid to reward achievement of critical operating, financial, strategic and individual measures and goals that are expected to contribute to stockholder value creation over time.

The cash bonuses paid for the 2016 performance of our CEO and President were determined by the compensation committee based solely on the achievement of corporate financial performance objectives, and the cash bonuses for the 2016 performance of each of our other named executive officers (other than Mr. Capone and Mr. Pinto) were determined by the compensation committee based 75% on the achievement of corporate financial performance objectives and 25% on the achievement of individual performance objectives, which were established based on his or her individual responsibilities. In the case of Mr. Capone, effective as of April 1, 2016 (in connection with his assuming additional responsibilities leading the company's global sales organization), his cash bonus was determined based 60% on the achievement of corporate financial objectives, 25% on the achievement of individual performance objectives, and 15% based on a sales objective (backlog as of December 31, 2016). In the case of Mr. Pinto, our former general manager of global sales, his cash bonus was to be based 50% on the achievement of corporate financial objectives, and 50% on a sales objective (annual incremental contract value revenue) for 2016. Mr. Pinto's compensation in connection with his 2016 performance was governed by the terms of his separation arrangement.

**Table of Contents****Target Bonus Opportunities**

For 2016, the target cash bonus opportunities for our executive officers were established as a percentage of their annual base salary. The compensation committee used external market data to determine the applicable target cash bonus opportunities for each executive officer. For 2016, the target annual cash bonus opportunities for each of our named executive officers, expressed as a percentage of his annual base salary, were as follows:

Named Executive Officer	Annual Base Salary	Target Bonus Opportunity (as a percentage of base salary)		Target Bonus Opportunity
Tarek A. Sherif	\$ 570,000	100%		\$ 570,000
Glen M. de Vries	\$ 570,000	100%		\$ 570,000
Rouven Bergmann	\$ 450,000	55%		\$ 247,500
Michael Capone	\$ 475,000	100%(1)		\$ 439,375(1)
Michael Otner	\$ 336,750	50%		\$ 168,375
Michael Pinto	\$ 325,000	100%		\$ 325,000

- (1) Mr. Capone's target annual bonus was increased from 70% of his base salary to 100% of his base salary in light of his increased responsibilities managing the Company's global sales organization. The target amount reported in the table above reflects this increase, applied pro rata from April 1, 2016 through December 31, 2016.

**Corporate Performance Objectives – Financial Bonus Factor**

For 2016, the compensation committee selected revenue and EBITDAO (as defined below) as the two measures of our corporate performance objectives to be used in determining the financial bonus factor that is used for the payment of annual cash bonuses. Growth in revenue and profitability are paramount objectives of our strategy and broad indicators of the success of our business. The compensation committee believes that rewarding these strategic imperatives through effective and appropriate compensation and retention tools yield the desired alignment with stockholder interests, including stockholder value creation. Accordingly, the compensation committee uses EBITDAO as its primary profitability measure, which is a non-GAAP measure that represents net income calculated in accordance with GAAP, excluding interest, taxes, depreciation, amortization and stock-based compensation. The compensation committee believes that EBITDAO provides a meaningful measure of core financial performance and supports our short-term and long-term business objectives.

Both corporate financial measures are weighted in determining the total financial bonus factor, with the opportunity to earn an annual cash bonus in excess of that level based on achieving performance superior to the target levels established by the compensation committee. The performance target levels for the annual cash bonuses for 2016 performance were \$462.0 million of revenue (representing a 17.7% increase over actual 2015 revenue) and \$105.5 million of EBITDAO (representing an 18.5% increase over actual 2015 EBITDAO). The compensation committee established a target matrix comparing revenue and EBITDAO at different performance levels, with each combination of revenue and EBITDAO providing for a specific payout level (not to exceed 300%). The matrix was established to ensure that bonuses would be earned for corporate performance only where we substantially achieved our revenue goal for the year while, at the same time, demonstrating a significant level of profitability. To further illustrate the rigorous nature of the required performance levels, either (a) 2016 revenue of \$445 million (more than 96% of target) combined with 2016 EBITDAO of \$100.5 million (more than 95% of target) or (b) 2016 revenue of \$447 million (more than 96% of target) combined with 2016 EBITDAO of \$94.5 million (more than 89% of target) would result in a financial bonus factor of only 55%. The bonus factors resulting from each combination of revenue and EBITDAO were, in the judgment of the compensation committee, appropriate, with the higher bonus factors achievable but nevertheless subject to a number of uncertainties and extraneous influences which could prevent their achievement. Earned bonus amounts were subject to decrease (a negative adjustment) but not increase at the compensation committee's discretion.

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After reviewing our 2016 revenue and profitability, and ascertaining the intersection of actual revenue and EBITDAO in the target matrix described above, the compensation committee determined a financial bonus factor of 112% for our corporate performance objectives, as reflected in the following table (showing target and actual revenue and EBITDAO reference points for the calculation, with intermediate points on the matrix interpolated). The compensation committee determined the financial bonus factor entirely through reference to the target matrix.

	Revenue (\$M)	EBITDAO (\$M)	Financial Bonus Factor
2016 Minimum Threshold	\$ 445.0	\$ 94.5	55%
2016 Target	\$ 462.0	\$ 105.5	100%
<b>2016 Actual</b>	<b>\$ 463.4</b>	<b>\$ 106.7</b>	<b>112%</b>

**Reconciliation of Net Income to Non-GAAP EBITDAO**

	Twelve Months Ended December 31, 2016      2015 (in thousands)	
Net income	\$ 28,983	\$ 13,167
Add back:		
Interest and other expense, net	12,895	13,457
Provision for income taxes	8,331	2,608
Stock-based compensation	41,158	48,987
Depreciation and amortization	15,349	10,822
EBITDAO	\$ 106,716	\$ 89,041

**Individual Performance Objectives**

For the individual performance component, payments are determined at the discretion of the compensation committee based on our CEO's subjective evaluation of each individual's performance (which involves both quantitative and qualitative considerations) and collaborative contribution to our overall success. For our CEO and President, individual performance was not a factor in determining their annual cash bonuses; their bonuses were based solely on our corporate performance.

At that time, the compensation committee also determined, based on its review of the recommendation of our CEO, that the individual performance objectives of each named executive officer had been attained at the following percentage levels.

Named Executive Officer(1)	Individual Performance Objectives Attainment Level
Tarek A. Sherif	N/A
Glen M. de Vries	N/A
Rouven Bergmann	150%(2)
Michael Capone	150%(2)
Michael Otner	100%

- (1) Mr. Pinto is not included in the above table. His compensation (including bonus for 2016) was determined under the terms of his separation arrangement with the company.
- (2) The individual performance component rewards each executive's functional contribution to the company's performance. For example, Mr. Capone's COO organization greatly exceeded its objectives regarding delivery of the product roadmap, quality goals and leadership and talent goals, as well as assuming leadership over the company's global sales organization, and Mr. Bergmann exceeded his leadership and Finance organization objectives as our CFO.

**Table of Contents****Bonus Results**

Based on its review of our overall corporate performance, and taking into account each named executive officer's attainment of his individual performance objectives for 2016, the compensation committee approved bonus payments as follows for our named executive officers. Because the annual cash bonuses for our CEO and President were based entirely on our corporate performance objectives, their actual annual cash bonus payments were 112% of their target annual cash bonus opportunities, in accordance with the 112% financial bonus factor described above.

Named Executive Officer(1)	Target Annual Cash Bonus Opportunity	Amount Related to Company Performance Objectives	Amount Related to Individual Performance Objectives	Actual Annual Cash Bonus Payment	Percentage of Target Annual Cash Bonus Opportunity
Tarek A. Sherif	\$ 570,000	\$ 638,400	N/A	\$ 638,400	112%
Glen M. de Vries	\$ 570,000	\$ 638,400	N/A	\$ 638,400	112%
Rouven Bergmann	\$ 247,500	\$ 207,900	\$ 92,813	\$ 300,713	122%
Michael Capone	\$ 439,375	\$ 295,260	\$ 164,766	\$ 558,625(2)	127%
Michael Otner	\$ 168,375	\$ 141,435	\$ 42,094	\$ 183,529	109%

- (1) Mr. Pinto is not included in the above table. His compensation (including bonus for 2016) was determined under the terms of his separation arrangement with the company.
- (2) Includes an additional \$98,599 related to achievement of a sales objective (actual backlog as of December 31, 2016).
- The annual cash bonuses paid to our named executive officers for 2016 are set forth in the 2016 Summary Compensation Table below.

**Long-Term Incentive Compensation**

We believe that long-term performance is achieved through an ownership culture that aligns the long-term interests of our executives with those of our stockholders. Our incentive plans have been established and operated to achieve that objective. The compensation committee recognizes that while the annual cash bonus rewards management actions that impact short- and mid-term performance, the interests of our stockholders are also served by giving key employees the opportunity to participate in the long-term appreciation of our common stock through equity awards. In addition, equity awards are an effective tool for management retention because they are subject to vesting over an extended period of time and, in the case of stock options, provide for only a limited exercise period following termination of employment.

The annual equity awards granted to our executive officers are in the form of restricted stock awards and performance-based restricted stock units ( PBRSU ) awards. Generally, stock options are granted to our executive officers only as part of new hire awards. The compensation committee believes that restricted stock and stock unit awards provide a stronger incentive to create and preserve long-term stockholder value. Restricted stock and stock unit awards promote employee retention and stock ownership and also help manage stockholder dilution by using fewer shares than would result from the exclusive or principal use of stock options.

For 2016, 50% of the value of the annual equity awards granted to our executive officers was in the form of shares of restricted stock subject to time-based vesting conditions (annually over four years), contingent on our achieving positive EBITDAO for 2016, and 50% of the value of such awards was in the form of PBRsUs. The PBRsUs granted in 2016 ( 2016 PBRsU Awards ) are to be earned at the end of a three-year performance period based on our relative three year TSR (December 31, 2015 – December 31, 2018) compared to the Russell 2000 Index. Each 2016 PBRsU Award represents a contingent right to receive 0% to 200% of the target number of shares of our common stock subject to the award.

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In addition to the regular annual awards, the compensation committee approved a 2016 transition award of time-based restricted stock to Messrs. Sherif, de Vries, Bergmann, Capone and Pinto in connection with its move to three-year cliff vesting for PBRsUs. Subject to these executives continued employment with our company, the transition awards are scheduled to vest in equal installments over a three-year period. These one-time transition awards in 2016 were designed to serve as an additional retention tool for these executives until the three-year cliff vesting of the PBRsUs is fully phased in.

To determine the size of each 2016 equity award, the compensation committee considered the recommendation of our CEO (except with respect to his own award and the award for our President), its assessment of each executive officer's past performance and expected future contributions, competitive market data about similar awards for their respective positions, and its assessment of the retention value of each executive officer's outstanding and unvested equity awards. The number of shares of restricted stock and PBRsUs awarded to our named executive officers was calculated based on the stock price value equal to the average closing NASDAQ market price for our common stock for the 30 trading days prior to the grant date, and, in the case of PBRsUs, reflects their value assuming performance at the target level.

The equity awards granted to our named executive officers in February 2016 were as follows:

Named Executive Officer	2016 Annual Time- Based Restricted Stock Award (Economic Value)(1)	2016 Annual Time- Based Restricted Stock Award (# of shares)	2016 Annual Performance-Based Restricted Stock Units Award (Economic Value)(1)	2016 Annual Performance- Based Restricted Stock Units Award at target	2016 Transition Awards(2) (Economic Value)(1)	2016 Transition Awards(2) (# of units)
				(Total # of units that may be earned in 2019)		
Tarek A. Sherif	\$ 3,000,000	76,472	\$ 3,000,000	76,472	\$ 500,000	12,745
Glen M. de Vries	\$ 3,000,000	76,472	\$ 3,000,000	76,472	\$ 500,000	12,745
Rouven Bergmann	\$ 750,000	19,118	\$ 750,000	19,118	\$ 1,000,000	25,491
Michael Capone	\$ 1,000,000	25,491	\$ 1,000,000	25,491	\$ 2,000,000	50,981
Michael Otner	\$ 500,000	12,745	\$ 500,000	12,745	0	0
Michael Pinto	\$ 500,000	12,745	\$ 500,000	12,745	\$ 500,000	12,745

(1) Represents dollar amount (economic value) approved by our compensation committee for time-based restricted stock and PBRsU awards. The values given for the corresponding equity awards in the 2016 Summary Compensation Table below were computed in accordance with Accounting Standards Codification subtopic 718 (ASC 718).

(2) This column represents shares of time-based restricted stock granted in connection with the transition to a 3-year performance period for PBRsUs (transition awards). These awards vest 33% annually on each anniversary of the grant date.

*Earnings Determination for 2015 PBRsU Awards*

For 2016, the number of shares of our common stock to be earned with respect to the second third of the 2015 PBRsU Awards was based on our TSR performance for the two-year period from January 1, 2015 through December 31, 2016 relative to the corresponding TSR of the Russell 2000 Index.

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The following table indicates select reference points (representing 0%, 100% and 200% of target, with intermediate points interpolated) for the calculations leading to the 127% PBRSU earnings determination made by the compensation committee in February 2017. Pursuant to the 127% earnings determination, Messrs. Sherif, de Vries, Capone and Other respectively earned 28,317, 28,317, 9,439 and 5,663 shares of our common stock, all of which were fully vested.

<b>Medidata TSR Relative to Russell 2000 TSR</b>	<b>Percentage of target achieved</b>
75th percentile or greater	200.0%
50th percentile	100.0%
20th percentile or less	0.0%
<b>2015-2016 TSR CALCULATIONS FOR PBRSU EARNINGS DETERMINATION</b>	
2015-2016 Medidata TSR	18.61%
2015-2016 Russell 2000 TSR	11.85%
<b>Medidata TSR &gt; RUSSELL 2000 TSR</b>	<b>6.76%</b>

The equity awards granted to our named executive officers in 2016 are set forth in the 2016 Summary Compensation Table and the 2016 Grants of Plan-Based Awards Table below.

**Employee Benefits and Perquisites**

In 2016, our named executive officers, like our other employees, participated in various employee benefit plans, including medical and dental care plans, a qualified Section 401(k) retirement plan, our employee stock purchase plan, life, accidental death and dismemberment and disability insurance, paid time off and other benefits. In addition, some of our named executive officers (along with all other trip participants from the company) also received de minimis travel expenses for a company-sponsored trip for spouses or significant others who attend our President's Club sales incentive trips to accompany them, including a gross-up for income tax purposes for those travel expenses related to the President's Club.

For further information about the employee benefits and perquisites provided to our named executive officers in 2016, see the 2016 Summary Compensation Table below.

We do not generally differentiate the benefits we offer our named executive officers from the benefits we offer our other employees. In 2016, we did not maintain any benefit programs exclusively for our executive officers, such as executive pension plans, deferred compensation plans, supplemental insurance or other executive retirement benefits.

**Post-Employment Compensation**

We have entered into change in control agreements with each of our executive officers, including each of our named executive officers. These agreements require us to provide certain payments and benefits upon a qualifying termination of employment, which includes a termination of employment without cause or where the executive officer resigns with good reason, during the severance protection period, which begins on the date a definitive transaction agreement is signed and ends two years after the date of a change in control. The receipt of these payments and benefits are contingent upon the named executive officer's execution, delivery, and non-revocation of a release and waiver of claims satisfactory to us following the termination of employment. In addition, for six months following termination of employment, and as a condition to the payments and benefits, the named executive officer must cooperate with any transition efforts that we request and must not disparage us, or our employees, executive officers, or members of our board of directors.

We believe that these agreements act as an incentive for our executive officers to remain employed and focused on their responsibilities during the threat or negotiation of a change-in-control transaction, which preserves our value and the potential benefit to be received by our stockholders in the transaction.

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The agreements provide for payments and benefits which are payable only upon a double trigger ; that is, only following a change in control of the company and a qualifying termination of employment, including a termination of employment without cause or a resignation for good reason.

For a summary of the material terms and conditions of the post-employment compensation arrangements with our named executive officers, see Potential Payments upon Termination of Employment or a Change in Control below.

In January 2017, we entered into a separation agreement with Mr. Pinto relating to his separation from the company. Under the terms of the separation agreement, Mr. Pinto resigned his officer position and is serving as an executive advisor to provide advice and assistance as to transitional sales matters through June 30, 2017 (the Termination Date ). Under the separation agreement, Mr. Pinto is receiving his existing base salary through the Termination Date and will receive a lump sum payment in the amount of \$180,375 on June 30, 2017, subject to normal tax withholdings. Mr. Pinto is eligible for continued vesting of previously awarded but unvested equity awards in accordance with the applicable plan documents through the Termination Date. He is also eligible to participate in the company's employee benefit programs through the Termination Date.

## **Other Compensation Policies**

### ***Executive Stock Ownership Guidelines***

In February 2013, our board of directors adopted stock ownership guidelines for our executive officers to help ensure that we maintain close alignment between the interests of our executive officers and those of our stockholders. Under our executive stock ownership guidelines, our CEO and President are each expected to own shares of our common stock valued at five times his annual base salary, and each other executive officer is expected to own shares of our common stock valued at two times his or her annual base salary. Each executive officer must achieve his or her applicable ownership levels on or before the fifth anniversary of his or her becoming an executive officer. At the end of 2016, all of our named executive officers were in compliance with their respective ownership guidelines.

These guidelines were amended in April 2017 to require that, if the individual's stock ownership requirement has not been met within the required period, the individual will be required to retain at least 50% of all net shares of the company (after settlement of taxes and transaction fees) acquired upon future vesting of equity awards, until his or her minimum stock ownership requirement is achieved.

### ***Executive Incentive Compensation Recoupment Policy***

In February 2015, our compensation committee adopted an Executive Incentive Compensation Recoupment Policy. Under this clawback policy, in the event that we are required to prepare an accounting restatement due to the misconduct of any covered executive officer (that is, our Section 16 reporting officers), we may seek to recover reimbursement of cash incentive compensation from each covered executive officer who, at any time after January 1, 2015 and during the three-year period preceding the date on which we are required to prepare the accounting restatement, received payment of such compensation based on the erroneous financial data. The amount of compensation to be recovered is the excess of the amount paid to the covered executive officer calculated by reference to the erroneous financial data, over the amount that would have been paid to the covered executive officer calculated by reference to the corrected financial data. In adopting this recoupment policy, our compensation committee elected not to include equity-based incentive compensation because of the complexity and absence of guidance as to how to calculate the recovery of equity incentives based on a relative TSR performance measure.

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The compensation committee intends to amend this policy, as necessary and appropriate, to comply with the SEC's final rules regarding the recoupment policies of the Dodd-Frank Wall Street Reform and Consumer Protection Act once adopted.

### ***Equity Award Grant Policy***

Under our equity award grant policy, grants made in conjunction with the hiring of a new employee or the promotion of an existing employee will be made on the first trading day of the month following the hire date or the promotion date. Under certain limited circumstances, our board of directors or the compensation committee may approve equity awards that are exceptions to the policy. With respect to equity awards granted to existing employees other than in connection with a promotion, typically such awards are made on an annual basis. Our preference is for the annual equity award grants to be made in the first quarter of the calendar year to align the annual awards with the determination of the prior year's financial results and performance reviews. Options are granted with an exercise price equal to the fair market value of our common shares on the grant date.

Generally, our annual restricted stock and PBRSU awards are determined as dollar amounts and then converted into shares or units (respectively) based on a stock price value equal to the average closing price for our common stock for the 30 trading days prior to the grant date.

### ***Hedging Prohibitions***

Our employees (including our executive officers) and members of our board of directors are prohibited from engaging in hedging transactions in our equity securities.

### ***Tax Considerations***

Section 162(m) places a limit of \$1.0 million on the amount of compensation we may deduct for federal income tax purposes in any one year with respect to our chief executive officer and certain other highly compensated executive officers, unless the conditions of an available exemption from the deduction limit are met. An exemption to this deductibility limit is available for various forms of performance-based compensation. In general, the compensation committee is authorized to grant incentive awards under our 2009 Long-Term Incentive Plan that qualify for the performance-based compensation exemption from Section 162(m). While the compensation committee has not adopted a formal policy regarding tax deductibility of compensation paid to our named executive officers, the compensation committee considers tax deductibility under Section 162(m) as a factor in compensation structure, and seeks to qualify the incentive compensation paid to the covered executive officers for the performance-based compensation exemption from the deduction limit under Section 162(m) when it believes such action is in the best interests of our company. In approving the amount and form of compensation for our executive officers, the compensation committee considers all elements of the cost to us of providing such compensation, including the potential impact of the Section 162(m) deduction limit. However, the compensation committee reserves the discretion, in its judgment, to authorize compensation payments that do not comply with an exemption from the deduction limit when it believes that such payments are appropriate to attract and retain executive talent.

### ***Risks Presented by Compensation Programs***

We have reviewed our compensation policies for all employees, including employees who are not executive officers, as they pertain to risk, including factors listed above under *What We Do* and *What We Do Not Do*, and we have determined that our compensation programs do not create or encourage the taking of risks that are reasonably likely to have a material adverse effect on our company. Several elements of the compensation program are designed to promote long-term stockholder value creation and incorporate components to mitigate risk, including a balanced mix of cash and equity compensation and annual and long-term incentives; multiple performance measures with payouts subject to the compensation committee's overall assessment of performance;



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and equity compensation having a multi-year vesting period and weighted more heavily towards restricted stock than stock options to provide greater incentive to create and preserve long-term stockholder value. Based on its evaluation, the compensation committee has determined, in its reasonable business judgment, that our compensation practices and policies for all employees do not encourage excessive risk and instead promote behaviors that support long-term sustainability and stockholder value creation.

**Compensation Committee Report**

The material in this report shall not be deemed to be (i) soliciting material, (ii) filed with the SEC, (iii) subject to Regulations 14A or 14C of the Exchange Act, or (iv) subject to the liabilities of Section 18 of the Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent the company specifically incorporates it by reference into such filing.

The compensation committee has reviewed and discussed the Compensation Discussion and Analysis with management. Based upon such review, the related discussions and such other matters deemed relevant and appropriate by the compensation committee, the compensation committee recommended to our board of directors that the Compensation Discussion and Analysis be included in this proxy statement.

THE COMPENSATION COMMITTEE

Neil Kurtz (Chairman)

Carlos Dominguez

George McCulloch

**Table of Contents****2016 Summary Compensation Table**

The following table provides required information regarding the compensation in the years ended December 31, 2016, 2015 and 2014 of (i) our chief executive officer, (ii) chief financial officer, (iii) each of the next three most highly compensated executive officers, and (iv) an additional individual who would have been among the group of persons described in the preceding clause (iii) except that the individual was not serving as an executive officer at December 31, 2016. We refer to these officers as our named executive officers.

Name and Principal Position	Year	Salary (\$)	Option Awards(1) (\$)	Stock Awards(1) (\$)	Non-Equity	All Other	Total (\$)
					Incentive Plan Compensation(2) (\$)	Compensation(3) (\$)	
Tarek A. Sherif <i>Chairman and Chief Executive Officer</i>	2016	568,333		6,711,808	638,400	12,428	7,930,969
	2015	545,833		7,596,917	313,500	5,990	8,462,241
	2014	497,917		4,017,492	94,000	5,890	4,615,299
Glen M. de Vries <i>President</i>	2016	568,333		6,711,808	638,400	8,844	7,927,385
	2015	545,833		7,596,917	313,500	5,300	8,461,551
	2014	497,917		4,017,492	94,000	5,200	4,614,609
Rouven Bergmann(4) <i>Chief Financial Officer</i>	2016	450,000		2,455,273	300,713	13,488	3,219,474
	2015	262,500	1,349,999	1,749,990	145,777	304,675	3,812,941
	2014						
Michael Capone(5) <i>Chief Operating Officer</i>	2016	472,917		3,865,930	558,625	11,771	4,909,243
	2015	450,000		2,532,348	292,163	9,112	3,283,623
	2014	112,500	750,003	2,250,011	30,791	112	3,143,417
Michael Otner <i>Executive Vice President &amp; General Counsel</i>	2016	335,771		1,044,580	183,529	11,759	1,575,639
Michael Pinto <i>Former Executive Vice President General Manager of Global Sales</i>	2016	325,000		1,488,743	199,661(6)	12,204	2,025,608

- (1) The dollar amounts reported for option awards, restricted stock awards and performance-based restricted stock unit awards ( PBRsUs ) represent the aggregate grant date fair value computed in accordance with ASC 718. For information on the assumptions used to calculate the value of the awards, refer to Note 11 to consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on February 28, 2017.
- (2) Represents performance-based cash incentives.
- (3) Includes (i) employer contributions to 401(k) plan of \$5,300 for each of Messrs. Sherif, de Vries, Bergmann, Capone, Otner, and Pinto; (ii) imputed income on group-term life insurance premiums of \$1,518 paid for Messrs. Sherif and Capone; \$660 for Mr. Bergmann; and \$990 for Messrs. Otner and Pinto; (iii) executive supplemental long term disability insurance payments of \$5,235 for Mr. Sherif; \$3,544 for Messrs. de Vries and Bergmann; \$4,328 for Mr. Capone; \$2,117 for Mr. Otner; and \$1,759 for Mr. Pinto; and (iv) tax gross-up payments of \$3,609 for Mr. Bergmann; \$3,352 for Mr. Otner; and \$4,035 for Mr. Pinto, relating to travel expenses for their spouses for our President s Club sales awards meeting.
- (4) Mr. Bergmann joined us effective May 13, 2015. The amounts reported for 2015 in the table above represent his 2015 base salary, performance-based cash incentive and life insurance premiums prorated for the period of May 13, 2015 to December 31, 2015. In addition, Mr. Bergmann received a sign-on bonus of \$300,000 and new hire equity awards consisting of an option to purchase 57,643 shares of our common stock and 32,839 shares of restricted stock in May 2015 outside of the annual grant process.

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- (5) Mr. Capone joined us effective October 1, 2014. The amounts reported for 2014 in the table above represent his 2014 base salary, performance-based cash incentive and life insurance premiums prorated for the period of October 1, 2014 to December 31, 2014. In addition, Mr. Capone received new hire equity awards consisting of an option to purchase 38,285 shares of our common stock and 51,125 shares of restricted stock in October 2014 outside of the annual grant process.
- (6) Represents executive bonus component of Mr. Pinto's separation arrangement.

**Note to the Summary Compensation Table:** SEC rules require that the Summary Compensation Table include in each year the aggregate grant date fair value of all stock, option or other equity awards granted during that year, regardless of whether such awards were granted based upon the average closing price for the 30 trading days immediately preceding the grant or are subject to service- or performance-based vesting conditions. The value of the equity awards reported in the Summary Compensation Table is often very different from the actual realized and realizable/current values (if any amount is even earned) of such awards, and therefore the equity awards and total annual compensation data is not indicative of how the compensation committee views executive compensation for the corresponding year in its decision-making process. We encourage shareholders to review the Compensation Discussion and Analysis for a full discussion about our executive compensation decisions for 2016.

**2016 Grants of Plan-Based Awards Table**

The following table provides information regarding grants of plan-based awards to our named executive officers during the year ended December 31, 2016:

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards(1)(2)		All Other Stock Awards: Number of Shares or Units(1)	All Other Option Awards: Number of Underlying Options(1)	Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards(3)
		Threshold	Target	Maximum	Threshold	Target				
		(\$)	(\$)	(\$)	(#)	(#)	(#)	(#)	(\$/Sh)	(\$)
Tarek A. Sherif	2/26/2016(4)		570,000	1,425,000		76,472				3,602,596
	2/26/2016(5)						76,472			2,665,049
	2/26/2016(6)						12,745			444,163
Glen M. de Vries	2/26/2016(4)		570,000	1,425,000		76,472				3,602,596
	2/26/2016(5)						76,472			2,665,049
	2/26/2016(6)						12,745			444,163
Rouven Bergmann	2/26/2016(4)		247,500	618,750		19,118				900,649
	2/26/2016(5)						19,118			666,262
	2/26/2016(6)						25,491			888,361
Michael Capone	2/26/2016(4)		332,500	831,250		25,491				1,200,881
	2/26/2016(5)						25,491			888,361
	2/26/2016(6)						50,981			1,776,688
Michael Otner	2/26/2016(4)		168,375	420,938		12,745				600,417
	2/26/2016(5)						12,745			444,163
Michael Pinto	2/26/2016(4)		325,000	812,500		12,745				600,417
	2/26/2016(5)						12,745			444,163
	2/26/2016(6)						12,745			444,163

- (1) Each restricted stock award and performance-based restricted stock unit award ( PBRSU ) was granted pursuant to our 2009 Long-Term Incentive Plan.
- (2) Represents the threshold, target and maximum number of shares of our common stock that may be earned under the PBRsUs granted to the named executive officers in 2016.
- (3) The amounts in this column represent the aggregate grant date fair value, computed in accordance with ASC 718, of each restricted stock award and PBRsU granted to the named executive officer in 2016.
- (4) These PBRsUs vest in full on the third anniversary of the grant date, subject to performance conditions. The performance period for these PBRsUs, which contain market conditions related to our 2016-2018 total shareholder return relative to that of the Russell 2000 Index, ends on December 31, 2018.
- (5) These restricted stock awards vest 25% on each anniversary of the grant date, subject to the recipient's continued employment with the company.

- (6) These restricted stock awards vest 1/3 on each anniversary of the grant date, subject to the recipient's continued employment with the company.

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The following table provides information regarding option awards granted to our named executive officers that were outstanding at December 31, 2016:

Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Option Awards Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration Date
Tarek A. Sherif	8/13/2008	73,460	(1)	\$ 9.88	8/13/2018
	6/24/2009	107,566	(2)	7.00	6/24/2019
	5/18/2010	75,058	(2)	7.68	5/18/2020
	5/31/2011	70,300	(2)	11.50	5/31/2021
	5/16/2012	72,174	(2)	13.99	5/16/2022
Glen M. de Vries	8/13/2008	26,836	(1)	9.88	8/13/2018
	6/24/2009	107,566	(2)	7.00	6/24/2019
	5/18/2010	75,058	(2)	7.68	5/18/2020
	5/31/2011	70,300	(2)	11.50	5/31/2021
	5/16/2012	72,174	(2)	13.99	5/16/2022
Rouven Bergmann	5/13/2015	22,816	34,827(1)	53.29	5/13/2025
Michael Capone	10/1/2014	20,738	17,547(1)	44.01	10/1/2024
Michael Otner	6/24/2009	2,158	(2)	7.00	6/24/2019
	5/18/2010	5,708	(2)	7.68	5/18/2020
	5/31/2011	6,152	(2)	11.50	5/31/2021
	5/16/2012	2,255	(2)	13.99	5/26/2022
Michael Pinto	10/1/2015	581	19,775(1)	41.55	10/1/2025

- (1) The shares underlying these option grants vested 25% on the first anniversary of the grant date, and then 1/36 of the remainder per month after that date until the option became fully vested on the fourth anniversary of the grant date.
- (2) The shares underlying these option grants vest in 48 equal monthly installments commencing one month after the grant date.

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The following table provides information regarding stock awards granted to our named executive officers that were outstanding at December 31, 2016:

Name	Grant Date	Number of Shares or Units of Stock That Have Not Vested (#)	Stock Awards Market Value of Shares or Units of Stock That Have Not Vested (\$)	Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Tarek A. Sherif	2/14/2013	7,734(1)	384,148		
	2/10/2014	9,344(1)	464,116		
	2/13/2015	50,168(1)	2,491,845		
	2/13/2015	(2)		22,297	1,107,492
	2/13/2015	(3)		22,296	1,107,442
	2/26/2016	76,472(1)	3,798,364		
Glen M. de Vries	2/14/2013	7,734(1)	384,148		
	2/10/2014	9,344(1)	464,116		
	2/13/2015	50,168(1)	2,491,845		
	2/13/2015	(2)		22,297	1,107,492
	2/13/2015	(3)		22,296	1,107,442
	2/26/2016	76,472(1)	3,798,364		
Rouven Bergmann	2/26/2016	12,745(4)	633,044		
	2/26/2016	(5)		76,472	3,798,364
	2/14/2013	7,734(1)	384,148		
	2/10/2014	9,344(1)	464,116		
	2/13/2015	50,168(1)	2,491,845		
	2/13/2015	(2)		22,297	1,107,492
Michael Capone	2/13/2015	(3)		22,296	1,107,442
	2/26/2016	76,472(1)	3,798,364		
	2/26/2016	12,745(4)	633,044		
	2/26/2016	(5)		76,472	3,798,364
	5/13/2015	19,000(1)	943,730		
	2/26/2016	19,118(1)	949,591		
Michael Otner	2/26/2016	25,491(4)	1,266,138		
	2/26/2016	(5)		19,118	949,591
	10/01/2014	25,563(1)	1,269,714		
	2/13/2015	16,723(1)	830,631		
	2/13/2015	(2)		7,432	369,147
	2/13/2015	(3)		7,433	369,197
Michael Pinto	2/26/2016	25,491(1)	1,266,138		
	2/26/2016	50,981(4)	2,532,226		
	2/26/2016	(5)		25,491	1,266,138
	2/14/2013	2,191(1)	108,827		
	2/10/2014	1,870(1)	92,883		
	2/13/2015	10,034(1)	498,389		
Michael Otner	2/13/2015	(2)		4,459	221,479
	2/13/2015	(3)		4,460	221,528
	2/26/2016	12,745(1)	633,044		
	2/26/2016	(5)		12,745	633,044
	10/1/2015	27,076(1)	1,344,865	0	
	2/26/2016	12,745(1)	633,044	0	
Michael Pinto	2/26/2016	12,745(4)	633,044	0	
	2/26/2016	(5)		12,745	633,044

(1) The restricted stock awards vest 25% on each anniversary of the grant date, subject to the executive's continued employment.

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- (2) The performance period for these performance-based restricted stock units, which contain market conditions related to our 2015-2016 total shareholder return relative to that of the Russell 2000 Index, ended on December 31, 2016. In February 2017, the compensation committee determined that the named executive officers received 127% of their target amounts.
- (3) The performance period for these performance-based restricted stock units, which contain market conditions related to our 2015-2017 total shareholder return relative to that of the Russell 2000 Index, will end on December 31, 2017.
- (4) These restricted stock awards vest 1/3 on each anniversary of the grant date, subject to the executive's continued employment.
- (5) The performance period for these performance-based restricted stock units, which contain market conditions related to our 2016-2018 total shareholder return relative to that of the Russell 2000 Index, will end on December 31, 2018.

**2016 Option Exercises and Stock Vested Table**

The following table sets forth information regarding options exercised by our named executive officers during 2016 and restricted stock awards that vested during 2016. The value realized for such options and restricted stock awards is also provided. For options, the value realized on exercise is equal to the difference between the market price of the underlying shares of common stock at exercise and the exercise price of the options. For restricted stock awards, the value realized on vesting is equal to the market price of the underlying shares of common stock at vesting.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Tarek A. Sherif			143,695	5,018,159
Glen M. de Vries			143,695	5,018,159
Rouven Bergmann			6,333	266,366
Michael Capone			27,875	1,227,435
Michael Otner			32,118	1,090,017
Michael Pinto	7,561	396,479	9,025	503,234

**Securities Authorized for Issuance under Equity Compensation Plans**

The following table sets forth information regarding our equity compensation plans in effect as of December 31, 2016. Each of our equity compensation plans is an employee benefit plan as defined by Rule 405 of Regulation C of the Securities Act.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options	(b) Weighted-Average Exercise Price of Outstanding Options	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))
Equity compensation plans approved by security holders	1,793,461	\$ 23.39	1,193,197(1)
Equity compensation plans not approved by security holders			
Total	1,793,461	\$ 23.39	1,193,197(1)

(1) Includes 867,654 shares remaining for issuance pursuant to the Second Amended and Restated 2009 Long-Term Incentive Plan and 325,543 shares remaining for issuance under the Second Amended and Restated 2014 Employee Stock Purchase Plan.





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### **Potential Payments upon Termination of Employment or a Change of Control**

#### ***Change in Control Scenarios***

We have entered into change in control agreements with our chief executive officer and our other named executive officers. These agreements provide payments and benefits based on a double trigger arrangement and only arise if there is an involuntary termination of employment during the severance protection period, which begins on the date a definitive transaction agreement is signed and ends two years after the date of a change in control. Payments and benefits will be due in the event the named executive officer's employment is involuntarily terminated by us without cause during the severance protection period or by the executive for good reason during the post-change in control protection period. These agreements provide that, upon a qualifying termination event, a named executive officer will be entitled to:

a pro rata payment of the annual incentive award he would have earned for the year of termination if his employment had continued through the end of the year, based on the portion of the year elapsed prior to the date of termination;

a lump sum severance payment equal to the sum (for Messrs. Sherif and de Vries, 200% of the sum) of his base salary and target bonus (or prior year's bonus, if greater); and

continuing group health and life insurance coverage for 12 months (for Messrs. Sherif and de Vries, 24 months).

The effect of a change in control on our equity-based awards will depend on whether the awards are subject to performance conditions or vest solely on the basis of continuing service. In general, if an equity-based award is subject only to a time-based vesting condition at the time of a change in control, the acquiring or surviving company may assume the award on an economically equivalent basis. The assumed award will be subject to substantially the same vesting and other terms and conditions as the original award, except that any previously unvested portion of the award will become fully vested if the acquiring or successor company terminates the named executive officer's employment without cause or he terminates his or her employment for good reason within 24 months after the change in control. If the award is not so assumed by the acquiring or successor company, then it will become fully vested in connection with the change in control transaction.

In the case of outstanding annual PBRsUs that have been earned and remain subject to time based vesting, the unvested portion of the award will be treated much like other awards that vest solely on the basis of continuing service (that is, the awards may be assumed subject to accelerated vesting upon involuntary termination of employment within 24 months after the change in control and, to the extent not assumed, will become fully vested as part of the change in control).

In the case of outstanding PBRsUs that have not yet been earned, if a change in control occurs during the performance period and the award is not assumed by the acquiring or successor company, some or all of the PBRsUs that otherwise could have been earned under the award will be deemed to have been earned and will be settled or paid out accordingly in connection with the change in control. The number of PBRsUs deemed to have been earned will be based in whole or in part upon actual performance for the portion of the applicable performance period ending prior to the change in control.

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Each named executive officer would have been entitled to the following estimated payments and benefits if a change in control occurred on December 31, 2016, and his employment was then terminated by us without cause :

Executive	Cash(1) (\$)	Welfare Benefits (\$)	Stock Options(2) (\$)	Restricted Stock(2) (\$)	Restricted Stock Units(2) (\$)	Total (\$)
Tarek A. Sherif	2,280,000	41,520		9,178,023		11,499,543
Glen M. de Vries	2,280,000	13,497		9,178,023		11,471,520
Rouven Bergmann	697,500	20,760	1,729,857	3,159,459		5,601,576
Michael Capone	914,375	432	871,559	6,367,545		8,153,911
Michael Otner	505,125	20,760		1,614,424		2,140,309
Michael Pinto	650,000	20,760	982,224	2,610,953		4,263,937

- (1) The amount does not reflect a pro-rata bonus for 2016. This is because we are required to assume an employment termination date of December 31, 2016. On this date, each named executive officer would have already earned a bonus for 2016 regardless of whether he terminated employment. Please refer to the Non-Equity Incentive Plan Compensation column of the Summary Compensation Table for the amount of the 2016 bonus paid to each executive.
- (2) Equity values are based on the following assumptions: (i) a closing price of our common stock on December 31, 2016 of \$49.67 per share; and (ii) the awards are not assumed in the corporate transaction, vest immediately prior to the change in control in accordance with the applicable award agreements and are cashed out.

Our named executive officers are not entitled to an excise tax gross-up with respect to their change-in-control payments and benefits. The payments and benefits will be reduced, however, to avoid the imposition of such excise tax if such reduction would enable the named executive officers to net more on an after-tax basis than they would in the absence of a reduction. In any event, the named executive officers would be personally responsible for the payment of any excise tax liability associated with any change in control payments and benefits.

***Non-Change in Control Scenarios***

In general, our executive officers are not entitled to severance payments or benefits upon termination of employment outside the context of a change in control (as discussed above). Certain equity awards do, however, provide special rules in the event of certain terminations of employment. These are summarized below. Except as noted below, all unvested equity awards will be forfeited by an executive officer upon termination of his employment.

***Death or Disability***

Our post-2012 restricted stock awards provide that the unvested shares of our common stock subject to the awards will become fully vested upon termination of a named executive officer's employment due to his death or disability. Our annual PBRUS awards provide that, if a named executive officer's employment is terminated due to death or disability during the applicable performance period, then he or she will be deemed to have earned a pro rata portion of the PBRUSs that would have been earned if his employment had not terminated (based upon the portion of the year elapsed at the time of the termination of employment), and all earned (or deemed earned) PBRUSs will become fully vested.

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We would have provided each named executive officer or his beneficiary with the following estimated payments or benefits had he died or become disabled on December 31, 2016.

Executive	Life Insurance(1) (\$)	Disability Payments(2) (\$)	Restricted Stock(3) (\$)	Restricted Stock Units(3) (\$)	Total (\$)
Tarek A. Sherif	600,000	397,500	9,178,023		10,175,523
Glen M. de Vries	50,000	397,500	9,178,023		9,625,523
Rouven Bergmann	600,000	343,500	3,159,459		4,102,959
Michael Capone	600,000	354,750	6,367,545		7,322,295
Michael Otner	600,000	263,675	1,614,424		2,478,099
Michael Pinto	600,000	254,475	2,610,953		3,465,428

- (1) Proceeds would be payable by a third-party insurer. Benefits provided upon death depend on the individual level of benefits chosen by the named executive officer during the annual benefits enrollment process. The named executive officers receive the same company-provided life insurance coverage as is generally offered to U.S.-based employees. The coverage is 200% of base salary for life insurance up to a maximum of \$600,000 unless a lower amount is elected. Each U.S.-based employee has the option of choosing a higher level of coverage at his or her own expense.
- (2) The named executive officers receive the same short-term and long-term disability coverage as is generally offered to U.S.-based employees. The coverage is (i) for short-term disability, 100%, 90%, 80% and 70% of base salary for months one through three, four, five and six, respectively, and (ii) for a subsequent period of long-term disability, 66.6% of base salary (up to a maximum monthly payment of \$23,250) for, generally, the duration of an employee's long-term disability. The payments above assume the annualized payout for the year immediately following disability and are funded through a combination of third party insurer benefits and salary continuation.
- (3) Equity values are based on a closing price of our common stock on December 31, 2016 of \$49.67 per share.

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**SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE**

Section 16(a) of the Exchange Act requires our directors, executive officers and persons who own more than ten percent of a registered class of our equity securities (collectively, the Reporting Persons ) to file reports of ownership and changes in ownership with the SEC. Such persons are required by SEC regulations to furnish us with copies of all such filings.

Based solely on our review of copies of such filings, or written representations from Reporting Persons that all reportable transactions were reported, we believe that during 2016, the Reporting Persons timely filed all reports they were required to file under Section 16(a), except for one Form 4 that was unintentionally filed late on behalf of Mr. Sherif as a result of untimely broker communication.

**Table of Contents****COMMON STOCK OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information regarding the beneficial ownership of our common stock as of April 3, 2017 by:

each of our directors;

each of our named executive officers;

all our directors and executive officers as a group; and

each person or entity who is known by us to beneficially own 5% or more of our outstanding common stock.

The amounts and percentages of common stock beneficially owned are reported on the basis of regulations of the SEC governing the determination of beneficial ownership of securities. Under the rules of the SEC, a person is deemed to be a beneficial owner of a security if that person has or shares voting power, which includes the power to vote or to direct the voting of such security, or investment power, which includes the power to dispose of or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities of which that person has a right to acquire beneficial ownership within 60 days. Under these rules, more than one person may be deemed a beneficial owner of the same securities and a person may be deemed a beneficial owner of securities as to which he has no economic interest. The number of shares of common stock outstanding used in calculating the percentage for each listed person includes the shares of common stock underlying options held by such person that are, or within 60 days will become, exercisable, but excludes shares of common stock underlying options held by any other person.

Except as indicated by footnote, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable. Percentage of ownership is based on 58,253,403 shares of common stock outstanding on April 3, 2017.

Unless otherwise indicated below, each person or entity has an address in care of our principal executive offices at 350 Hudson Street, 9th Floor, New York, New York 10014.

Name and Address of Beneficial Owner(1)	Number of Shares Beneficially Owned(2)	Percent
<b>Named Executive Officers and Directors:</b>		
Tarek A. Sherif(3)	1,213,914	2.1%
Glen M. de Vries(4)	1,286,863	2.2%
Rouven Bergmann(5)	120,194	*
Michael Capone(6)	200,682	*
Michael Otner(7)	102,192	*
Michael Pinto(8)	63,336	*
Carlos Dominguez(9)	96,536	*
Neil M. Kurtz, M.D.	110,003	*
George W. McCulloch(10)	87,960	*
Lee Shapiro(11)	48,461	*
Robert Taylor	56,381	*
<b>All Executive Officers and Directors as a group (13 persons)(12)</b>	<b>3,452,475</b>	<b>5.8%</b>
<b>5% Stockholders:</b>		
FMR LLC(13)	7,576,968	13.0%
BlackRock, Inc.(14)	6,159,391	10.6%

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Brown Capital Management, LLC(15)	5,888,776	10.1%
The Vanguard Group, Inc.(16)	4,639,784	8.0%
Sands Capital Management, LLC(17)	3,788,033	6.5%

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- \* Represents beneficial ownership of less than one percent (1.0%) of the outstanding common stock.
- (1) Shares shown in the table above include shares held in the beneficial owner's name or jointly with others, or in the name of a bank, nominee or trustee for the beneficial owner's account.
  - (2) For each of our executive officers and directors, the shares listed in this column include the following shares of restricted stock (which are subject to forfeiture and shall be automatically transferred back to the company upon termination or cessation of service if the vesting conditions have not been satisfied): 153,872 shares for each of Messrs. Sherif and de Vries; 70,392 shares for Mr. Bergmann; 133,004 shares for Mr. Capone; 26,781 shares for Mr. Otner; 45,131 shares for Mr. Pinto; 5,178 shares for each of Messrs. Dominguez, Kurtz, McCulloch, and Shapiro; and 5,639 shares for Mr. Taylor.
  - (3) Includes 398,558 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (4) Includes 351,934 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (5) Includes 26,419 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (6) Includes 23,928 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (7) Includes 16,273 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (8) Includes 1,745 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (9) Includes 42,916 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (10) Includes 33,850 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (11) Includes 14,886 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (12) Includes an aggregate of 910,509 shares of common stock that may be acquired upon exercise of stock options that are exercisable or will become exercisable within 60 days of April 3, 2017.
  - (13) This information is based solely on a Schedule 13G/A filed with the SEC on February 14, 2017 by FMR, LLC, which reported sole voting power and dispositive power with respect to 332,363 and 7,576,968 shares of common stock, respectively. The address of the principal business office for the reporting person is 245 Summer Street, Boston, MA 02210.
  - (14) This information is based solely on a Schedule 13G/A filed with the SEC on January 12, 2017 by BlackRock, Inc., which reported sole voting power and sole dispositive power with respect to 6,028,227 and 6,159,391 shares of common stock, respectively. The address of the principal business office for the reporting person is 55 E. 52<sup>nd</sup> Street, New York, NY 10055.
  - (15) This information is based solely on a Schedule 13G/A filed with the SEC on February 9, 2017 by Brown Capital Management, LLC. Brown Capital Management, LLC reported sole voting power and sole dispositive power with respect to 3,506,469 and 5,888,776 shares of common stock, respectively. The address of the principal business office for the reporting persons is 1201 N. Calvert Street, Baltimore, MD 21202.
  - (16) This information is based solely on a Schedule 13G/A filed with the SEC on February 10, 2017 by The Vanguard Group, Inc., which reported sole voting power and sole dispositive power with respect to 108,792 and 4,527,069 shares of common stock, respectively, and shared voting power and shared dispositive power with respect to 6,693 and 112,715 shares of common stock, respectively. The address of the principal business office for the reporting person is 100 Vanguard Blvd., Malvern, PA 19355.
  - (17) This information is based solely on a Schedule 13G/A filed with the SEC on February 14, 2017 by Sands Capital Management, LLC, which reported sole voting power and sole dispositive power with respect to 2,394,733 and 3,788,033 shares of common stock, respectively. The address of the principal business office for the reporting person is 1000 Wilson Blvd., Ste. 3000, Arlington, VA 22209.

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**RELATED PERSON TRANSACTIONS**

**Policy and Procedure for Approval of Related Person Transactions**

We require that all related party transactions, which includes transactions with directors, officers and holders of five percent or more of our voting securities and any member of the immediate family of and any entity affiliated with any of the foregoing persons, to be approved by our audit committee or another independent body of our board of directors. In approving or rejecting any such proposal, our audit committee (or other independent committee) is to consider the relevant facts and circumstances available and deemed relevant to the committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction.

**Transactions with Related Persons**

Based on a review of the transactions and arrangements between the company and any related person or related person affiliate, we did not engage in any other transactions or series of similar transactions in which the amount involved exceeded \$120,000 and in which any of our directors or executive officers, any holder of more than 5% of any class of our voting securities or any member of the immediate family of any of the foregoing persons had a direct or indirect material interest.



**Table of Contents****PROPOSAL 4****RATIFICATION OF APPOINTMENT OF****INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Deloitte & Touche LLP served as our principal independent registered public accounting firm for the year ended December 31, 2016. Deloitte & Touche LLP has been appointed by the audit committee as the independent registered public accountant firm for us and our subsidiaries for the year ending December 31, 2017. This appointment is being presented to the stockholders for ratification. Representatives of Deloitte & Touche LLP are expected to be present at the Annual Meeting and will be provided an opportunity to make statements if they desire to do so and to respond to appropriate questions from stockholders.

**Vote Required**

If a quorum is present at the Annual Meeting, the ratification of the appointment of Deloitte & Touche LLP requires the affirmative vote of at least a majority of the votes cast on the matter.

**Board Recommendation**

**Our board of directors recommends a vote FOR such ratification.** If the stockholders fail to ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm, it is not anticipated that Deloitte & Touche LLP will be replaced in 2017. Such lack of approval will, however, be considered by the audit committee in selecting our independent registered public accounting firm for 2018.

**Fees Paid to Independent Registered Public Accounting Firm**

The following table sets forth fees billed for professional audit services and other services rendered to the company by Deloitte & Touche LLP and its affiliates for the years ended December 31, 2016 and 2015.

	2016	2015
Audit Fees	\$ 1,536,033	\$ 1,775,000
Audit-Related Fees		
Tax Fees	271,102	150,000
All Other Fees		
<b>Total</b>	<b>\$ 1,807,135</b>	<b>\$ 1,925,000</b>

*Audit Fees.* Audit fees for both years consisted of aggregate fees billed for professional services rendered for the audit of our consolidated annual financial statements, review of interim consolidated financial statements, consultations on accounting matters directly related to the audit, or services that are normally provided by the independent registered public accounting firm in connection with statutory and regulatory filings or engagements.

*Audit-Related Fees.* Audit-related fees consists of aggregate fees billed for accounting consultations and other services that were reasonably related to the performance of audits or reviews of our financial statements and were not reported above under Audit Fees.

*All Other Fees.* All other fees consists of aggregate fees billed for products and services provided by the independent registered public accounting firm other than those disclosed above. These fees consisted of amounts paid for the use of an online accounting research tool.

**Audit Committee Report**

*The material in this report shall not be deemed to be (i) soliciting material, (ii) filed with the SEC, (iii) subject to Regulations 14A or 14C of the Exchange Act, or (iv) subject to the liabilities of Section 18 of the*



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*Exchange Act. This report shall not be deemed incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent the company specifically incorporates it by reference into such filing.*

The audit committee operates under a written charter approved by the board of directors that provides that its responsibilities include the oversight of the quality of the company's financial reports and other financial information and its compliance with legal and regulatory requirements; the appointment, compensation, and oversight of the company's independent registered public accounting firm, Deloitte & Touche LLP, including reviewing its independence; reviewing and approving the planned scope of the company's annual audit; reviewing and pre-approving any non-audit services that may be performed by Deloitte & Touche LLP; the oversight of the company's internal audit function; reviewing with management and the company's independent registered public accounting firm the adequacy of internal financial controls; and reviewing the company's critical accounting policies and estimates and the application of accounting principles generally accepted in the United States.

The audit committee oversees the company's financial reporting process on behalf of the board of directors. Management is responsible for the company's internal controls, financial reporting process, and compliance with laws and regulations and ethical business standards. Deloitte & Touche LLP is responsible for performing an independent audit of the company's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). The audit committee's main responsibility is to monitor and oversee this process.

The audit committee reviewed and discussed our audited financial statements for the year ended December 31, 2016, with management. The audit committee discussed with Deloitte & Touche LLP the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (Communication with Audit Committees). The audit committee has received the written disclosures and the letter from the independent accountant required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the audit committee concerning independence, and has discussed with the independent accountant the independent accountant's independence.

The audit committee considered any fees paid to Deloitte & Touche LLP for the provision of non-audit-related services and does not believe that these fees compromise Deloitte & Touche LLP's independence in performing the audit.

Based on the review and discussions referred to above, the audit committee recommended to the board of directors that such audited financial statements be included in the company's Annual Report on Form 10-K for the year ended December 31, 2016, for filing with the SEC.

### **THE AUDIT COMMITTEE**

Robert B. Taylor (Chairman)

Neil M. Kurtz, M.D.

George McCulloch

Lee Shapiro

### **Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors**

The audit committee pre-approves all audit and non-audit services provided by our independent registered public accounting firm prior to the engagement of the independent registered public accounting firm with respect to such services. The audit committee shall pre-approve any additional audit services and permissible non-audit services.

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**PROPOSAL 5**

**ADVISORY VOTE ON THE FREQUENCY OF HOLDING THE SAY ON PAY VOTE**

Pursuant to rules of the Securities and Exchange Commission, every six years, the company is required to provide stockholders with an opportunity to vote, on an advisory (non-binding) basis, as to whether the company should hold an advisory vote on the executive compensation of our named executive officers every one, two or three years. Stockholders may also abstain from voting on the matter.

The initial say when on pay vote was held at our 2011 annual meeting of stockholders. At our 2011 annual meeting of stockholders, stockholders voted, on an advisory basis, to hold the say on pay vote every year. The board of directors has appreciated annual input from our stockholders the past six years. After thoughtful consideration, the board of directors recommends that stockholders vote for maintaining the annual interval for the stockholder advisory vote on executive compensation.

A plurality of the affirmative votes cast will select, on an advisory basis, the frequency of holding the say on pay vote in the future. As an advisory vote, this proposal is not binding upon the company. The board of directors will consider the outcome of the vote when determining the frequency of holding the say on pay vote.

**Board Recommendation**

**Our board of directors recommends a vote for holding the say on pay vote ANNUALLY.**

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**ADDITIONAL INFORMATION**

**Stockholder Proposals and Nominations**

In order for a stockholder proposal to be considered for inclusion in the proxy statement for the 2018 annual meeting of stockholders, the written proposal must be received by the Corporate Secretary at the address below. The Corporate Secretary must receive the proposal no later than December 21, 2017. The proposal will also need to comply with the SEC's regulations under Rule 14a-8 regarding the inclusion of stockholder proposals in company sponsored proxy materials. Proposals should be addressed to:

Corporate Secretary

Medidata Solutions, Inc.

350 Hudson Street, 9th Floor

New York, New York 10014.

For a stockholder proposal that is not intended to be included in the proxy statement for the 2018 annual meeting of stockholders, or if you want to nominate a person for election as a director, you must provide written notice to the Corporate Secretary at the address above. The Secretary must receive this notice not earlier than January 30, 2018 and not later than March 1, 2018. However, if our 2018 annual meeting of stockholders is held more than 30 days before or more than 60 days after May 30, 2018, then the Secretary must receive this notice not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which we make a public announcement of the date of the meeting. The notice of a proposed item of business must provide information as required in our bylaws which, in general, require that the notice include for each matter a brief description of the matter to be brought before the meeting; the reason for bringing the matter before the meeting; the text of the proposal or matter; your name, address, and number of shares you own beneficially or of record; and any material interest you have in the proposal.

The notice of a proposed director nomination must provide information and documentation as required in our bylaws which, in general, require that the notice of a director nomination include the information about the nominee that would be required to be disclosed in the solicitation of proxies for the election of a director under federal securities laws; the nominee's written consent to be named in the proxy statement as a nominee and to serve as a director if elected; a description of any transaction or arrangement during the last three years between the stockholder making the nomination and the nominee in which the nominee had a direct or indirect material interest; and a completed and signed questionnaire, representation and agreement. A copy of the bylaw requirements will be provided upon request to the Corporate Secretary at the address above.

**Transaction of Other Business**

Management does not intend to bring before the annual meeting any matters other than those disclosed in the notice of annual meeting of stockholders attached to this proxy statement, and it does not know of any business that persons other than management intend to present at the meeting. If any other matters are properly presented at the Annual Meeting for action, the persons named in the form of proxy and acting thereunder generally will have discretion to vote on those matters in accordance with their best judgment.

**Annual Report on Form 10-K**

Copies of our annual report on Form 10-K for the year ended December 31, 2016, as filed with the SEC, are available without charge to stockholders upon request to Investor Relations, at the principal executive offices of Medidata Solutions, Inc., 350 Hudson Street, 9th Floor, New York, New York 10014.

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### **Incorporation by Reference**

To the extent that this proxy statement is incorporated by reference into any other filing under the Securities Act or the Exchange Act, the sections of this proxy statement entitled Compensation Committee Report and Audit Committee Report (to the extent permitted by the rules of the SEC) will not be deemed incorporated unless specifically provided otherwise in such filing. Information contained on or connected to our website is not incorporated by reference into this proxy statement and should not be considered part of this proxy statement or any other filing that we make with the SEC.

### **Householding**

The SEC's proxy rules permit companies and intermediaries, such as brokers and banks, to satisfy proxy delivery requirements with respect to two or more stockholders sharing the same address by delivering a single proxy mailing to those stockholders. This method of delivery, often referred to as householding, should reduce the amount of duplicate information that stockholders receive and lower printing and mailing costs for companies. Medidata and certain intermediaries are householding proxy materials for stockholders of record in connection with the Annual Meeting. This means that:

Only one proxy mailing will be delivered to multiple stockholders sharing an address unless you notify your broker or bank to the contrary;

You can contact Medidata by calling 212-918-1800 or by writing to Investor Relations, Medidata Solutions, Inc., 350 Hudson Street, 9th Floor, New York, New York 10014 to request a separate set of the proxy materials and for future meetings or, if you are currently receiving multiple copies, to receive only a single copy in the future or you can contact your bank or broker to make a similar request; and

You can request delivery of a single set of the proxy materials from your bank or broker if you share the same address as another Medidata stockholder and your bank or broker has determined to household proxy materials.

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**Exhibit A**

**MEDIDATA SOLUTIONS, INC.**

**2017 LONG-TERM INCENTIVE PLAN**

**ARTICLE 1**

**GENERAL**

1.1 **Purpose.** The purpose of the Plan is to establish a vehicle through which the Company can provide equity-based and other incentive compensation opportunities in order to facilitate its ability to recruit, motivate, reward and retain talented individuals who contribute or are expected to contribute to the success and growth of the Company.

1.2 **Eligibility.** Awards may be granted under the Plan to any employee or non-employee director of, and any consultant, independent contractor or other person who provides personal services to, the Company or any of its Subsidiaries, provided that Incentive Stock Options may be granted only to employees.

1.3 **Types of Awards.** Awards under the Plan may include, without limitation, Options, Stock Appreciation Rights, shares of Restricted Stock, Restricted Stock Units, other Share-based Awards and performance-based Cash Incentive Awards, all as described in Articles 5 through 7 hereof.

**ARTICLE 2**

**DEFINITIONS**

2.1 **Award** means an award made to an eligible person under the Plan.

2.2 **Award Agreement** means an agreement, in written or electronic form, between the Company and a Participant setting forth the terms and conditions of an Award.

2.3 **Board** means the Board of Directors of the Company.

2.4 **Cause** has the meaning set forth in Section 9.3(a).

2.5 **Change in Control** has the meaning set forth in Section 9.3(b).

2.6 **Code** means the Internal Revenue Code of 1986, as amended.

2.7 **Committee** means the Compensation Committee of the Board.

2.8 **Company** means Medidata Solutions, Inc., a Delaware corporation, and any successor thereto.

2.9 **Exchange Act** means the Securities Exchange Act of 1934, as amended.

2.10 **Exercise Price** means, with respect to an Option, the purchase price per Share covered by the Option and, with respect to an SAR, the baseline price per Share covered by the SAR.

2.11 **Fair Market Value** means, as of any relevant date, the closing price per Share on such date on the principal securities exchange on which Shares are traded or, if no Shares are traded on that date, the closing price per Share on the next preceding date on which Shares are traded, or (2) the value determined under such other method or convention as the Board or the Committee, acting in a consistent manner in accordance with the Plan and applicable tax law, may prescribe.





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- 2.12 Incentive Cash Award means a performance-based cash Award described in Section 7.2.
- 2.13 Incentive Stock Option or ISO means an Option that qualifies as an incentive stock option within the meaning of Section 422 of the Code.
- 2.14 Option means an option to purchase Shares granted pursuant to Section 5.1.
- 2.15 Participant means any person who has been selected to receive an Award under the Plan or who holds an outstanding Award under the Plan.
- 2.16 Performance-Based Exemption means the performance-based compensation exemption from the compensation deduction limitations imposed by Section 162(m) of the Code, as set forth in Section 162(m)(4)(C) of the Code.
- 2.17 Performance Factors means any of the factors listed in Section 7.3(b) that may be used for Awards intended to qualify for the Performance-Based Exemption.
- 2.18 Plan means the incentive compensation plan set forth herein, as it now exists or is hereafter amended.
- 2.19 Restricted Stock means stock issued in the name of a Participant pursuant to Section 6.1, subject to applicable transfer restrictions and vesting and other conditions.
- 2.20 Restricted Stock Unit or RSU means a contingent right to receive Shares in the future that is granted pursuant to Section 6.1.
- 2.21 Section 409A means Section 409A of the Code.
- 2.22 Shares means shares of the Company's common stock.
- 2.23 SAR or Stock Appreciation Right means a right to receive appreciation in the value of Shares that is granted pursuant to Section 5.2.
- 2.24 Subsidiary means (a) a corporation or other entity in an unbroken chain of corporations or other entities at least 50% of the total value or voting power of the equity securities of which is owned by the Company or by any other corporation or other entity in the chain, and (b) any other corporation or entity in which the Company has a 20% controlling interest, directly or indirectly, as may be designated by the Committee pursuant to the criteria set forth in Section 1.409A-1(b)(5)(iii)(E) of the Treasury regulations.
- 2.25 Ten Percent Stockholder means a person who owns or is deemed to own (under Section 424(d) of the Code) more than ten percent of the total combined voting power of all classes of stock of the Company or any Subsidiary.

**ARTICLE 3**

**ADMINISTRATION**

- 3.1 General. Except as specified herein or as otherwise determined by the Board, the Plan shall be administered by the Committee, the composition of which is governed by the Committee's charter.
- 3.2 Authority of the Committee. Subject to the provisions of the Plan, the Committee, acting in its discretion, shall have the power and authority to select the persons to whom Awards will be made, prescribe the terms and conditions of each Award and make amendments thereto, construe, interpret and apply the provisions

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of the Plan and of any Award Agreement, and make any and all determinations and take any and all other actions as it deems necessary or desirable in order to carry out the terms of the Plan or of any Award. Each Award granted under the Plan shall have a vesting period of at least one year from the date the Award is granted, provided that the Committee may prescribe a shorter vesting period with respect to Awards covering up to 5% of the Shares issuable under the Plan.

3.3 **Delegation of Authority.** To the fullest extent authorized or permitted by applicable law, including, without limitation, Section 157(c) of the Delaware General Corporation Law, the Committee may (i) delegate to officers of the Company or any affiliate, or committees thereof, the authority, subject to such terms as the Committee shall determine, to perform such functions, including the authority to grant Awards, as the Committee may determine, and (ii) delegate to any person or subcommittee (who may, but need not be members of the Committee) such Plan-related administrative authority and responsibilities as it deems appropriate. The Committee may not delegate its authority with respect to non-ministerial actions relating to individuals who are subject to the reporting requirements of Section 16(a) of the Exchange Act or Awards that are intended to qualify for the Performance-Based Exemption.

3.4 **Indemnification.** The Company shall indemnify and hold harmless each member of the Committee and the Board and any employee or director of the Company or any Subsidiary to whom any duty or power relating to the administration of the Plan or any Award is delegated from and against any loss, cost, liability (including any sum paid in settlement of a claim with the approval of the Board), damage and expense (including reasonable legal and other expenses incident thereto) arising out of or incurred in connection with the Plan, unless and except to the extent attributable to such person's fraud or willful misconduct.

## **ARTICLE 4**

### **SHARES SUBJECT TO THE PLAN; INDIVIDUAL AWARD LIMITS**

4.1 **Shares Issuable under the Plan.** Subject to Section 4.3, the number of Shares available for grant and issuance pursuant to Awards made under the Plan shall be equal to 1,200,000 plus the number of Shares subject to outstanding awards under the Company's 2009 Plan Long-Term Incentive Plan that, on or after the effective date of this Plan, are forfeited, settled in cash or otherwise terminated without such Shares being issued. The number of Shares that may be issued pursuant to ISOs shall not exceed 1,000,000. For purposes of these limitations, (a) the total number of Shares covered by stock-settled SARs (and not just the number of Shares issued in settlement of such SARs) shall be deemed to have been issued under the Plan (and will not be returned to the Plan's share reserve), and (b) Shares covered and/or issued pursuant to an Award will again be available for grant and issuance pursuant to subsequent Awards to the extent such Shares are covered by or relate to (1) the unexercised portion of an Option or SAR that is forfeited or otherwise terminated or canceled for any reason other than exercise, (2) Restricted Stock Awards, RSU Awards or any other forms of Award that are forfeited, (3) subject to an Award that is settled in cash or that otherwise terminates without such Shares being issued, or (4) Shares issued pursuant to awards that are assumed, converted or substituted as a result of the acquisition of another company by the Company or a combination of the Company with another Company. Shares that are used or withheld to pay the exercise price of an Option or SAR or to satisfy the tax withholding obligations associated with the vesting or settlement of an Option or SAR will not be available for future grant and issuance under the Plan. Shares that are used or withheld to satisfy tax withholding obligations of Awards other than Options and SARs will be added back to the Share reserve and will be available for future Awards under the Plan. Shares issued under the Plan may be either authorized and unissued Shares, or authorized and issued Shares held in the Company's treasury, or any combination of the foregoing. For the avoidance of doubt, Shares purchased by the Company in the open market with proceeds from a cash exercise of an Option may not be added to the pool of Shares otherwise available under the Plan.

4.2 **Individual Award Limitations.** No more than 300,000 Shares may be issued pursuant to Awards granted to any Participant in any calendar year of the Company. No more than \$4,000,000 may be earned by any

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Participant for any calendar year pursuant to Cash Incentive Awards made under Section 7.2. If the performance period for a Cash Incentive Award covers more than one calendar year, then, for the purpose of applying the annual limit under the preceding sentence, the amount that may be earned by the Participant for each calendar year covered by the performance period will be deemed to be equal to the quotient of (a) the maximum amount that may be earned pursuant to the Award, divided by (b) the number of such calendar years.

4.3 Adjustments for Capital Changes. In the event of a split-up, spin-off, stock dividend, extraordinary cash dividend, recapitalization, consolidation of Shares, reverse stock split or other similar capital change, the number and class of Shares that may be issued under the Plan pursuant to Section 4.1, the number of Shares that be covered by ISOs pursuant to Section 4.1, the number and class of Shares that may be issued pursuant to annual Awards granted to any Participant pursuant to Section 4.2, the number, class and/or Exercise Price (if any) of Shares subject to outstanding Awards and performance goals expressed in or with respect to Shares shall be equitably adjusted by and at the discretion of the Board or the Committee in order to prevent undue dilution or enlargement of the benefits available under the Plan or an outstanding Award, as the case may be, provided that the number of Shares subject to any outstanding Award shall always be a whole number.

4.4 No Dividend Payments on Unvested Shares. Notwithstanding anything to the contrary contained herein, no Participant shall be paid dividends with respect to unvested Shares covered by an Award (including, without limitation, Options and SARs), provided that the Committee may award dividend equivalents (on Awards other than Options and SARs) for future settlement if, as and when the corresponding unvested Shares become vested and non-forfeitable.

**ARTICLE 5**

**STOCK OPTIONS; STOCK APPRECIATION RIGHTS**

5.1 Grant of Company Stock Options. Except as otherwise specified herein (including in Section 3.2), the Committee may grant Options to Participants upon such vesting, forfeiture and other terms and conditions as the Committee, acting in its discretion in accordance with the Plan, may determine, either at the time an Option is granted or, if the holder's rights are not adversely affected, at any subsequent time. Each Option will be deemed not to be an ISO (a non-ISO) unless, at the time the Option is granted, the Committee specifically designates such Option as an ISO. If an Option is designated as an ISO and if part or all of the Option does not qualify as an ISO for any reason, then the Option or the portion of the Option that does not so qualify will nevertheless remain outstanding and will be characterized as a non-ISO.

5.2 Grant of Stock Appreciation Rights. Except as otherwise specified herein (including in Section 3.2), the Committee may grant Stock Appreciation Rights, or SARs, to Participants, either alone or in connection with the grant of an Option, upon such vesting, forfeiture and other terms and conditions as the Committee, acting in its discretion in accordance with the Plan, may determine, either at the time the SARs are granted or, if the holder's rights are not adversely affected, at any subsequent time. Upon exercise, the holder of an SAR shall be entitled to receive cash and/or a number of whole Shares (as determined by the Committee) having a value equal to the product of X and Y, where

X = the number of whole Shares as to which the SAR is being exercised, and

Y = the excess of (i) the Fair Market Value per Share on the date of exercise over (ii) the Exercise Price per Share covered by the SAR.

5.3 Exercise Price. The Committee shall determine the Exercise Price per Share under each Option and each SAR, provided that (a) the Exercise Price per Share shall be at least equal to the Fair Market Value per Share on the date the Option or SAR is granted; and (b) in the case of an ISO granted to a Ten Percent Stockholder, the Exercise Price per Share shall be at least equal to 110% of the Fair Market Value per Share on the date the ISO is granted.

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5.4 **Repricing and Reloading Prohibited**. Except in connection with a corporate transaction involving the Company (including, without limitation, any stock dividend, distribution (whether in the form of cash, Shares, other securities or other property), stock split, extraordinary cash dividend, recapitalization, change in control, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of Common Shares or other securities, or similar transaction(s)), the Company may not, without obtaining stockholder approval: (a) reduce the Exercise Price under outstanding Options or SARs; (b) cancel outstanding Options or SARs in exchange for Options or SARs with a lower Exercise Price; or (c) cancel outstanding Options or SARs in exchange for cash or other securities at a time when the per Share Exercise Price under such Options or SARs is higher than the Fair Market Value. The Committee may not grant an Option that includes a reload feature or make any other Plan Awards that have the effect of providing a reload feature with respect to Shares used to satisfy the Option exercise price or applicable withholding tax.

5.5 **Exercise Period of Options and SARs**. The Committee may establish such vesting, forfeiture, expiration and other conditions as it deems appropriate (on a grant-by-grant basis) with respect to the exercisability of an Option or SAR; provided, however, that, unless sooner terminated in accordance with its terms, each Option and each SAR shall automatically expire on the tenth anniversary of the date the Option or SAR is granted (or, in the case of an ISO granted to a Ten Percent Stockholder, on the fifth anniversary of the date the ISO is granted).

5.6 **Exercise of Options**. A Participant may exercise an outstanding Option that is vested and exercisable by transmitting to the Secretary of the Company (or another person designated by the Company for this purpose) a written notice identifying the Option that is being exercised and specifying the number of whole Shares to be purchased pursuant to such exercise, together with payment in full of the aggregate Exercise Price payable for such Shares and any applicable withholding taxes. The Exercise Price shall be payable in cash or by check or by any other means that the Committee may expressly permit, including, without limitation, (a) the Participant's surrender of previously-owned Shares, (b) the Company's withholding Shares that would otherwise be issued if the Exercise Price had been paid in cash, (c) payment pursuant to a broker-assisted cashless exercise program established and made available in accordance with applicable law, (d) any other method of payment that is permitted by applicable law, or (e) any combination of the foregoing. Applicable withholding taxes shall be payable in cash or by any other method that may be permitted or required by the Committee in accordance with Section 11.1. Shares tendered or withheld for the payment of the exercise price of an Option will be credited on the basis of the Fair Market Value of such Shares on the date they are tendered or withheld pursuant to such exercise.

5.7 **Exercise of SARs**. A Participant may exercise an outstanding SAR that is vested and exercisable by transmitting to the Secretary of the Company (or another person designated by the Company for this purpose) a written notice identifying the SAR that is being exercised and specifying the number of whole Shares for which the SAR is being exercised, together with payment in full of any applicable withholding taxes attributable to such exercise. Applicable withholding taxes shall be payable in cash or by any other method that may be permitted or required by the Committee in accordance with Section 11.1.

5.8 **Termination of Employment or Service**. Unless the Committee determines otherwise at the time of grant, or thereafter if no rights of a Participant are thereby reduced, in the event of the termination of a Participant's employment or service with the Company and its Subsidiaries, (a) the Participant will forfeit any then outstanding unvested Options or SARs, and (b) any then outstanding vested Option or SAR will remain outstanding for a period of at least 90 days (one year if such termination is due to the Participant's death) following the date of such termination (but in no event longer than the expiration of its stated term.) Notwithstanding the foregoing, if a Participant's employment or other service is terminated by the Company or a Subsidiary for Cause (as such term is defined in Section 9.3(a) below) or at a time when grounds for such a termination exist, the Participant's then outstanding Options and/or SARs (whether or not previously vested) shall immediately terminate and shall have no further force or effect.

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5.9 Rights as a Stockholder. A Participant shall have no rights to vote or receive dividends or any other rights of a stockholder with respect to any Shares covered by an Option or SAR unless and until such Option or SAR is validly exercised and any such Shares are issued to the Participant (subject to Section 4.3).

**ARTICLE 6**

**RESTRICTED STOCK AND RESTRICTED STOCK UNIT AWARDS**

6.1 Grant of Restricted Stock and RSU Awards. The Committee may grant Restricted Stock Awards and/or Restricted Stock Unit Awards (RSUs) to any Participant. Under a Restricted Stock Award, the Company issues Shares to the Participant when the Award is made subject to specified conditions and restrictions; and under an RSU Award, the Participant receives the right to receive Shares in the future upon satisfaction of specified terms and conditions. Except as otherwise specified herein (including in Section 3.2), the vesting, forfeiture and other terms and conditions applicable to the Shares covered by a Restricted Stock Award or the RSUs and Shares covered by a Restricted Stock Unit Award (including, but not limited to, conditions and restrictions tied to the achievement of specified performance objectives and/or the completion of one or more specified periods of future service) will be determined by the Committee and will be set forth in the applicable Award Agreement.

6.2 Restricted Shares. Shares issued pursuant to a Restricted Stock Award may be evidenced by book entries on the Company's stock transfer records pending satisfaction of the applicable vesting conditions. If a stock certificate for restricted Shares is issued, the certificate will bear an appropriate legend to reflect the nature of the conditions and restrictions applicable to the Shares. The Company may retain physical possession of any such stock certificate and may require a Participant to deliver a stock power to the Company, endorsed in blank, in order to facilitate the transfer back to the Company of restricted Shares that are forfeited. Notwithstanding the foregoing, if a Participant forfeits Shares covered by a Restricted Stock Award, the Shares that are forfeited shall automatically be cancelled on the books and records of the Company whether or not the Participant returns a certificate for such Shares or otherwise fails or refuses to execute documents or take other action requested by the Company in connection with the cancellation of the forfeited Shares. Except as otherwise provided in the Award Agreement, a Participant who holds unvested Shares pursuant to an outstanding Restricted Stock Award shall have the right to vote the unvested Shares. Subject to Section 4.4, no dividends will be paid with respect to unvested Shares covered by a Restricted Stock Award.

6.3 Shares Covered by RSU Awards. No Shares will be issued pursuant to an RSU Award unless and until the applicable vesting and other conditions have been satisfied. The holder of an RSU Award shall have no rights as a stockholder with respect to Shares covered by the RSUs unless and until the RSUs become vested and the Shares covered by the vested RSUs are issued to the Participant.

6.4 Non-Transferability. No Restricted Stock Award, no RSUs and no Shares covered by a Restricted Stock or RSU Award may be sold, assigned, transferred, disposed of, pledged or otherwise hypothecated other than to the Company or its designee in accordance with the terms of the Award or the Plan, and any attempt to do so shall be null and void.

6.5 Termination of Service Before Vesting; Forfeiture. Unless otherwise specified in the Award Agreement or otherwise subsequently determined by the Committee, unvested Shares held pursuant to a Restricted Stock Award and unvested RSUs held under an RSU Award shall be forfeited and canceled upon the termination of a Participant's employment or other service with the Company and its Subsidiaries.

6.6 Timing Requirement for Settlement of RSUs. Unless otherwise specified in the applicable Award Agreement, RSUs shall be settled in the form of Shares or cash (as determined by the Committee) as soon as practicable after the RSUs become vested but in no event later than the 15th day of the third month following the calendar year in which the vesting of such RSUs occurs. Notwithstanding the foregoing, the terms of an RSU

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Award may expressly provide that settlement of vested RSUs covered by the Award will be deferred until a later date or the occurrence of a subsequent event, provided that any such deferral provision complies with the election, distribution timing and other requirements of Section 409A.

6.7 Receipt of Shares. A Participant who holds Shares that become vested under a Restricted Stock Award or who holds RSUs that become vested (to the extent the vested RSUs are settled in Shares) will be entitled to receive such Shares, subject to the payment or satisfaction of applicable withholding taxes. Applicable withholding taxes shall be payable in cash or by any other method that may be permitted or required by the Committee in accordance with Section 11.1.

## **ARTICLE 7**

### **OTHER FORMS OF AWARD**

7.1 Other Share-Based Awards. Subject to applicable law, the Committee, acting in its discretion, may grant such other forms of Award denominated or payable in, valued in whole or in part by reference to, or otherwise based upon or related to, Shares, including, without limitation, performance share awards, performance unit awards, stock bonus Awards, dividend equivalent Awards (either alone or in conjunction with other Awards), purchase rights for Shares, and Share-based Awards designed to comply with or take advantage of applicable laws outside of the United States. Except as otherwise specified herein (including in Section 3.2), each such Share-based Award will be made upon such vesting, forfeiture, performance and other terms and conditions as the Committee, acting in its discretion, may determine; provided that dividend equivalent awards made in conjunction with other Share-based Awards shall be subject to the same vesting and forfeiture conditions and the same payment terms applicable to the corresponding Share-based Awards and/or, if applicable, such different payment terms and conditions that may be required in order to comply with Section 409A. If and when a Share-based Award granted under this Section becomes payable, payment may be made in the form of cash, whole Shares or a combination of cash and whole Shares (as determined by the Committee), with a payment in Shares being based upon their Fair Market Value on the applicable vesting or payment date(s). The settlement of any such Award shall be subject to the payment or satisfaction of applicable withholding taxes. Applicable withholding taxes shall be payable in cash or by any other method that may be permitted or required by the Committee in accordance with Section 11.1.

7.2 Cash Incentive Awards. The Committee may make annual and/or long-term Cash Incentive Awards pursuant to which a Participant may earn the right to receive a cash payment that is conditioned upon the achievement of a specified performance goal or goals established by the Committee and communicated to the Participant as soon as practicable after the beginning of the applicable performance period and the satisfaction of such other terms and conditions as the Committee may prescribe. A Cash Incentive Award will be payable in the form of a single sum cash payment on or as soon as practicable after the date the Award becomes earned and vested, but in no event later than the 15th day of the third month of the following calendar year. Notwithstanding the foregoing, the Committee may require or permit the deferred payment and/or installment payout of all or part of any such Cash Incentive Award if (and only if) the Award is exempt from Section 409A or, if not so exempt, the deferred payout complies with the applicable terms and conditions of Section 409A. The payment of Cash Incentive Awards will be subject to applicable tax withholding requirements.

7.3 Termination of Service Before Vesting; Forfeiture. Unless otherwise specified in the Award Agreement or otherwise subsequently determined by the Committee, unearned and/or unvested Share-based Awards and Cash Incentive Awards outstanding upon the termination of a Participant's employment or other service with the Company and its Subsidiaries shall be forfeited and canceled.

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**ARTICLE 8**

**PERFORMANCE-BASED EXEMPTION AWARDS**

8.1 **Performance-Based Exemption - General.** If the Committee intends that an Award should qualify for the Performance-Based Exemption (other than Options and SARs which otherwise qualify as performance-based compensation for purposes of Section 162(m) of the Code), then, except as otherwise permitted by Section 162(m) of the Code, the grant, exercise, vesting, amount and/or settlement of such Award shall be contingent upon achievement of one or more pre-established, objective performance goals, which shall be prescribed in writing by the Committee not later than 90 days after the commencement of the applicable performance period and in any event before completion of 25% of such performance period in accordance with the requirements of Section 162(m). Such performance goals shall be based on any one or more of the Performance Factors listed in Section 8.2 and may be expressed in absolute terms, relative to performance in prior periods and/or relative to performance of other companies or an index of other companies or on such other basis as the Committee, acting in a manner consistent with Section 162(m) of the Code, may determine. All determinations as to the establishment of performance goals, the amount of cash and/or the number of Shares that may be earned, the target level (and, if applicable, minimum and maximum levels) of actual achievement required as a condition of earning the Award, and the earned value of any Award intended to qualify for the Performance-Based Exemption shall be made by the Committee and shall be recorded in writing.

8.2 **Performance Factors.** Any one or more of the following Performance Factors may be used by the Committee in establishing performance goals for Awards intended to qualify for the Performance-Based Exemption, in each case taking into account such adjustments and other objective factors as the Committee may specify at the time the goal is established: Any one or more of the following Performance Factors may be used by the Committee in establishing performance goals for Awards intended to qualify for the Performance-Based Exemption, in each case taking into account such adjustments and other objective factors as the Committee may specify at the time the goal is established: (a) income measures (including, but not limited to, gross profit, operating income, earnings before or after taxes and/or other adjustments, or earnings per share); (b) return measures (including, but not limited to, return on assets, investment, equity, or sales); (c) cash flow return on investments, which equals net cash flows divided by owners' equity; (d) gross revenues; (e) debt measures (including, without limitation, debt multiples); (f) marked value added; (g) economic value added; and (h); sales and growth metrics (including, but not limited to, iACV, subscription growth, bookings or backlog); and/or (i) Share price (including, but not limited to, growth measures and total shareholder return).

8.3 **Performance Goals.** In establishing performance goals with respect to an Award intended to qualify for the Performance Exemption, the applicable Performance Factors may be determined by reference to the Company's performance and/or the performance of any one or more Subsidiaries, divisions, business segments or business units of the Company and its Subsidiaries, and may be based upon comparisons of any of the indicators of performance relative to other companies (or subsidiaries, divisions, business segments or business units of other companies) or relevant indices. Subject to compliance with the Treasury regulations under Section 162(m) of the Code, the Committee may prescribe that performance goals under any such Award will be adjusted as necessary or appropriate in order to account for changes in law or accounting rules, principles or standards or to reflect the impact of extraordinary or unusual items, events or circumstances which, if not taken into account, would result in windfalls or hardships that are not consistent with the intent and purposes of the Award, including without limitation (a) restructurings, discontinued operations, extraordinary items, and other unusual or non-recurring charges, (b) an event either not directly related to the operations of the Company or not within the reasonable control of the Company's management, (c) acquisitions and divestitures, or (d) changes in generally accepted accounting principles.

8.4 **Discretion.** The Committee shall have the authority, in its discretion, to reduce the formula amount or number of Shares otherwise payable pursuant to an Award that is intended to qualify for the Performance-Based Exemption, but may not increase the amount or number of Shares that would otherwise be payable under any

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such Award; provided that, in the case of an Award intended to constitute a share-based payment arrangement under FASB ASC Topic 718, the Committee may exercise its discretion under this Section only if such discretion is expressly reserved as part of the original terms of the Award.

8.5 Certification. No amount shall be paid and no Shares shall be distributed or released pursuant to an Award intended to qualify for the Performance-Based Exemption unless and until the Committee certifies in writing the extent of achievement of the applicable performance goal(s) and the corresponding amount that is earned by the Participant under such Award.

**ARTICLE 9**

**CHANGE IN CONTROL**

9.1 Assumption or Substitution of Outstanding Awards. If a Change in Control (as defined below) occurs, the parties to the Change in Control may agree that outstanding Awards shall be assumed by, or converted into a substitute award for or with respect to shares of common stock of, the successor or acquiring company (or a parent company thereof) on an economically equivalent basis. If the Change in Control does not involve an agreement with a third party, and if the Shares covered by an outstanding Award are still traded on a national securities exchange, then the Committee may unilaterally require that the Award be continued, assumed, converted or substituted in accordance with this Section. The vesting and other terms of any such assumed or substitute award shall be substantially the same as the vesting and other terms and conditions of the original Award, provided that (a) if the assumed or substituted Award is an Option or SAR, the number of shares and Exercise Price shall be adjusted in accordance with the principles set forth in Sections 1.424-1(a)(5) and 1.409A-1(b)(5)(v)(D) of the Treasury regulations, and (b) if the assumed or substituted Award is not an Option or SAR, the number of shares covered by the assumed or substitute Award will be based upon the Change in Control transaction value of the Company's outstanding Shares. If the original Award is subject to the satisfaction of performance conditions, such performance conditions shall be deemed to have been satisfied immediately prior to the Change in Control at the greater of (x) the target performance level(s), or, if calculable, (y) the actual performance level(s) during the portion of the performance period ending immediately prior to the Change in Control. If, within two years following a Change in Control, a Participant's employment or other service terminates due to the Participant's death or is terminated by the Company or a successor or acquiring company (or any of its or their affiliates) without Cause (as such terms are defined below), any then outstanding assumed or substitute Awards held by such terminated Participant shall immediately be fully vested, and any outstanding assumed or substitute Options and SARs will remain outstanding for 180 days after such termination of employment (or, if earlier, until the expiration of their original stated terms).

9.2 Awards Not Assumed or Substituted. If a Change in Control occurs and an outstanding Award is not assumed, converted, substituted or continued pursuant to Section 9.1, then such Award will be deemed fully vested; provided, however, that, if the Award is subject to the satisfaction of performance conditions, such performance conditions shall be deemed to have been satisfied immediately prior to the Change in Control at the greater of (x) the target performance level(s), or, if calculable, (y) the actual performance level(s) during the portion of the performance period ending immediately prior to the Change in Control. Each such outstanding Award shall be cancelled immediately prior to the effective time of the Change in Control in exchange for an amount equal to the per Share consideration received by the holders of outstanding Shares in the Change in Control transaction, reduced in the case of an Option or SAR by the Exercise Price for such Shares. No consideration will be payable in respect of the cancellation of an Option or SAR with an Exercise Price per Share that is equal to or greater than the value of the Change in Control transaction consideration per Share. The amount payable with respect to the cancellation of an outstanding Award pursuant to this section will be paid in cash, unless the parties to the Change in Control agree that some or all of such amount will be payable in the form of freely tradable shares of common stock of the successor or acquiring company (or a parent company thereof). Subject to Section 11.2, the payments contemplated by this Section 9.2 shall be made upon at or as soon as practicable following the effective time of the Change in Control.



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### 9.3 Certain Defined Terms.

(a) Cause means, with respect to any Participant and unless otherwise specified in the Participant's Award Agreement, (i) if there is an employment, change in control or other services-related agreement in effect between the Participant and the Company or a Subsidiary that defines the term cause (or a term of like import), the Participant's engaging in conduct that constitutes cause (or a term of like import) within the meaning of that agreement, or (ii) if there is no such employment or other agreement in effect, Cause shall mean (1) willful failure (except where due to physical or mental incapacity) or refusal to perform in any material respect the duties and responsibilities of the Participant's employment which is not corrected within ten days following of written notice of such conduct by the Company; (2) misappropriation by Participant of the assets or business opportunities of the Company or its subsidiaries; (3) embezzlement or fraud committed by the Participant, at Participant's direction, or with Participant's prior personal knowledge; (4) the Participant's conviction of, or plea of guilty or nolo contendere to, the commission of a felony; or (5) the Participant's willful actions or failures to act which have or would be reasonably likely to have a material adverse effect on the property, business or reputation of the Company or on the ability of the Participant to perform the material duties of his or her employment.

(b) A Change in Control shall be deemed to have occurred upon the happening of any of the following events:

(i) any person as such term is used in Sections 13(d) and 14(d) of the Exchange Act (other than the Company, a subsidiary of the Company, any trustee or other fiduciary holding securities under any employee benefit plan of the Company or any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company), is or becomes, including pursuant to a tender or exchange offer for shares of Common Stock pursuant to which purchases are made, the beneficial owner (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities, provided, however, that the provisions of this paragraph (a) shall not be applicable to any acquisition directly from the Company; or

(ii) individuals who, as of the date hereof, constitute the Board (the Incumbent Board), shall cease for any reason to constitute at least a majority thereof; provided, however, that any individual becoming a director subsequent to the date hereof whose appointment or election by the Board or nomination for election by the Company's stockholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who were either directors on the date hereof, or whose appointment, election or nomination was previously so approved or recommended, shall be considered a member of the Incumbent Board, but excluding for this purpose any new director whose initial assumption of office is in connection with an actual or threatened election contest relating to the election of directors of the Company or

(iii) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof) more than 50% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation; or

(iv) there is consummated a plan of complete liquidation or dissolution of the Company or there is consummated the sale or disposition by the Company of all or substantially all of the Company's assets, in one transaction or a series of related transactions, other than a sale or disposition by the

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Company of all or substantially all of the Company's assets to an entity, more than 50% of the combined voting power of the voting securities of which is owned by stockholders of the Company in substantially the same proportion as their ownership of the Company immediately prior to such sale.

9.4 No Fractional Shares. In the event of an adjustment in the number of shares covered by any Award pursuant to the provisions hereof, any fractional shares resulting from such adjustment shall be disregarded, and each converted Award shall cover only the number of full shares resulting from the adjustment.

### **ARTICLE 10**

#### **AMENDMENT AND TERMINATION**

10.1 Amendment and Termination of the Plan. The Board, acting in its sole discretion, may amend the Plan at any time and from time to time and may terminate the Plan at any time. Plan amendments will be subject to approval by the Company's stockholders if and to the extent such approval is required in order to satisfy applicable law and/or stock exchange listing rules. Unless sooner terminated, the Plan will terminate on the tenth anniversary of the date it is approved by the Company's stockholders (and the Plan will not become effective unless and until such approval is obtained).

10.2 Outstanding Awards. Except as specifically required or permitted by the Plan or an Award Agreement, no amendment of an Award Agreement, and no termination, amendment or modification of the Plan shall cause any then outstanding Award to be forfeited or altered in a way that adversely affects a Participant's rights, unless the Participant consents thereto. The rights of any person with respect to an Award that is outstanding at the time of the termination of the Plan shall not be affected solely by reason of such termination and shall continue in accordance with the terms of the Award and of the Plan, as each is then in effect or is thereafter amended.

### **ARTICLE 11**

#### **TAX WITHHOLDING; SECTION 409A**

11.1 Tax Withholding. Each Award and the exercise, vesting and settlement of each Award shall be subject to a Participant's payment or other satisfaction of any applicable withholding taxes. The Committee, in its sole discretion and pursuant to applicable law and such procedures as it may specify from time to time, may require or permit the Participant to satisfy the tax withholding obligation(s) relating to an Award (in whole or in part) by or through (a) the payment of cash by the Participant, (b) the Company's withholding cash or Shares that would otherwise be paid, issued or released pursuant to the Award, (c) the transfer to the Company of other Shares owned by the Participant, (d) a broker-assisted cashless exercise arrangement that complies with applicable law, and/or (e) by such other means as the Committee may determine, including, without limitation, withholding from regular and/or incentive cash compensation that may otherwise be or become payable to the Participant. The amount of a Participant's withholding tax obligation that is satisfied in Shares (whether previously-owned or withheld from the Shares that would otherwise be issued or released) shall be based upon the Fair Market Value of the Shares on the date such Shares are delivered or withheld. In no event may Shares be used to satisfy more than the minimum amount of a Participant's tax withholding obligation.

11.2 Section 409A Compliance. It is intended that Awards made under the Plan, including any deferred payment or settlement terms and conditions, shall be exempt from or comply with Section 409A. Without limiting the generality of the preceding sentence and notwithstanding anything to the contrary contained herein, the following provisions shall apply with respect to an Award if and to the extent that such Award provides for the payment of nonqualified deferred compensation (within the meaning of Section 409A).

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(a) If a Participant becomes entitled to payments (cash or Shares) under the Award on account of the termination of the Participant's employment or other service or words of like import, then such termination of employment or service will not be deemed to have occurred unless and until the Participant incurs a separation from service within the meaning of Section 409A.

(b) If the Participant is a specified employee within the meaning of Section 409A at the time of his or her separation from service, then any such payment covered by Section 409A shall be delayed until the first business day following the earlier of (i) the date which is six months after the date of such separation from service, or (ii) the date of the Participant's death, if and to the extent such delay is required by Section 409A. On the delayed payment date, the Participant (or the Participant's beneficiary) will be entitled to receive a lump sum payment or distribution of the payments that otherwise would have been made during the period that such payments are delayed.

(c) If a payment covered by Section 409A would be accelerated on account of the occurrence of a Change in Control, then such payment shall not be made unless such Change in Control also constitutes a change in ownership, change in effective control or change in ownership of a substantial portion of the Company's assets within the meaning of Section 409A. Any payment that would have been made except for the application of the preceding sentence shall be made in accordance with the payment or settlement schedule that would have applied under the Award in the absence of a Change in Control or, if earlier, on the date of the termination of the Participant's employment or service (without regard to any further service or performance conditions that otherwise would have applied).

(d) Notwithstanding the foregoing, each Participant shall be solely responsible, and the Company shall have no liability to the Participant or otherwise, for or with respect to any taxes, acceleration of taxes, interest or penalties arising under Section 409A.

## **ARTICLE 12**

### **MISCELLANEOUS**

12.1 **Non-Transferability.** Except as otherwise specifically permitted by the Plan or the applicable Award Agreement, no Award shall be assignable or transferable except upon the Participant's death to his or her beneficiary (as defined below), and, during a Participant's lifetime, an Option or SAR may be exercised only by the Participant or the Participant's guardian or legal representative. Notwithstanding the foregoing, subject to the consent of the Committee (which it may grant, condition or deny in its sole discretion for any or no reason), a Participant may make an inter vivos transfer of an Option (other than an ISO), SAR or RSU to any family member (within the meaning of Item A(1)(a)(5) of the General Instructions to SEC Form S-8 or a successor), including, without limitation, to one or more trusts, partnerships, limited liability companies and other entities which qualify as family members, provided that such transfer is not a transfer for value or is a transfer for value that the Committee determines is for estate planning purposes, and provided further that such transfer is permitted by applicable law and does not give rise to tax under Section 409A. For the purposes hereof, a Participant's beneficiary is any person or entity (including, without limitation, a trust or estate) designated in writing by a Participant to succeed to the Participant's Award(s) upon the Participant's death, subject to the provisions hereof and of the applicable Award Agreement(s). A Participant may designate a beneficiary by delivering a written beneficiary designation to the Committee (or its designee) in such form and in such manner as the Committee (or its designee) may prescribe. Each beneficiary designation duly filed with the Committee (or its designee) will have the effect of superseding and revoking any prior beneficiary designation. If a Participant does not designate a beneficiary, or if no designated beneficiary survives the Participant, then the Participant's estate will be deemed to be his or her beneficiary. The term Participant, as used herein, shall be deemed to include the Participant's beneficiary if and to the extent the context requires.

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12.2 **Successors**. All obligations of the Company with respect to Awards granted under the Plan shall be binding on any successor to the Company of all or substantially all of the business and/or assets of the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation or otherwise, and the term "Company" as used herein shall be construed accordingly.

12.3 **Legal Construction**. If any provision of the Plan shall be held illegal or invalid for any reason, such illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

12.4 **Compliance with Law**. The granting of Awards and the issuance of Shares under the Plan shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

12.5 **Transfer Orders; Placement of Legends**. All certificates for shares of Common Stock delivered under the Plan shall be subject to such stock-transfer orders and other restrictions as the Company may deem advisable under the rules, regulations, and other requirements of the Securities and Exchange Commission, any stock exchange or market upon which the Common Stock may then be listed, and any applicable federal or state securities law. The Company may cause a legend or legends to be placed on any such certificates to make appropriate reference to such restrictions.

12.6 **Nonexclusivity of the Plan**. No provision of the Plan, and neither its adoption by the Board or submission to the stockholders for approval, shall be construed as creating any limitations on the power of the Board or a committee thereof to adopt such other incentive arrangements, apart from the Plan, as it may deem desirable.

12.7 **Sub-Plans**. The Committee may from time to time establish sub-plans under the Plan for purposes of satisfying securities, tax or other laws of any foreign jurisdictions that may apply to Participants who receive Awards. Any such sub-plan shall contain such limitations and other terms and conditions as the Committee determines are necessary or desirable for such purposes and shall be in such form (including, without limitation, as an appendix to the Plan) as the Committee deems appropriate. Each sub-plan shall be deemed a part of the Plan, but shall apply only to the Participants who are subject to the laws of the jurisdiction to which the sub-plan relates.

12.8 **Uniformity Not Required**. The provisions of the Award Agreements need not be uniform among all Awards, among all Awards of the same type, among all Awards granted to the same Participant, or among all Awards granted at the same time.

12.9 **Claw Back Conditions**. Notwithstanding anything to the contrary contained herein or in an Award Agreement, Awards and benefits otherwise provided by Awards made under the Plan shall be subject to the Company's incentive compensation claw back policies as in effect from time to time, and, as applicable, the claw back requirements of the Dodd-Frank Act Section 954.

12.10 **Limitation of Rights**. The Plan shall not interfere with or limit in any way the right of the Company or of any Subsidiary to terminate any person's employment or other service at any time, and the Plan shall not confer upon any person the right to continue in the employ or other service of the Company or any Subsidiary. No employee, director or other person shall have any right to be selected to receive an Award or, having been so selected, to be selected to receive a future Award.

12.11 **Decisions and Determinations Final**. All decisions and determinations made by the Board pursuant to the provisions hereof and, except to the extent rights or powers under the Plan are reserved specifically to the discretion of the Board, all decisions and determinations made by the Committee in connection with the exercise

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of its authority and responsibilities under the Plan (including, without limitation, decisions and determinations relating to the construction, interpretation and administration of the Plan or any Award), shall be final, binding and conclusive on all persons.

12.12 Governing Law. The Plan and all Award Agreements shall be construed in accordance with and governed by the laws of the State of Delaware (without regard to the legislative or judicial conflict of laws rules of any state).

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**VOTE BY INTERNET**

*Before The Meeting* - Go to **[www.proxyvote.com](http://www.proxyvote.com)**

***MEDIDATA SOLUTIONS, INC.***

***350 HUDSON STREET, 9TH FLOOR***

***NEW YORK, NY 10014***

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

*During The Meeting* -

Go to

**[www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017)**

You may attend the Meeting on May 30, 2017 at 10:00 A.M. EDT via the Internet and vote during the Meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

**VOTE BY PHONE - 1-800-690-6903**

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the meeting date. Have your proxy card in hand when you call and then follow the instructions.

**VOTE BY MAIL**

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

DETACH AND RETURN THIS PORTION ONLY

**THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.  
MEDIDATA SOLUTIONS, INC.**

**The Board of Directors recommends you vote FOR the following:**

1. Election of Directors

**Nominees:**

**For                      Against                      Abstain**

- 1a. Tarek A. Sherif
- 1b. Glen M. de Vries
- 1c. Carlos Dominguez
- 1d. Neil M. Kurtz
- 1e. George W. McCulloch
- 1f. Lee A. Shapiro
- 1g. Robert B. Taylor

**The Board of Directors recommends you vote FOR proposals 2, 3 and 4:**

**For                      Against                      Abstain**

- 2. To approve, on an advisory basis, named executive officer compensation (the say on pay vote ).
- 3. To approve the Medidata Solutions, Inc. 2017 Long-Term Incentive Plan.

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

**For                      Against                      Abstain**

4. To ratify the appointment of Deloitte & Touche LLP as the company's independent registered public accounting firm for the year ending December 31, 2017.

**The Board of Directors recommends you vote 1 YEAR on the following proposal:**

**1 Year      2 Years      3 Years      Abstain**

5. To approve, on an advisory basis, the frequency of holding the say on pay vote in the future (the say when on pay vote ).

**NOTE:** In the discretion, proxies are authorized to transact such other business as may properly come before the meeting or any adjournment or postponement thereof.

Signature [PLEASE SIGN WITHIN BOX]      Date

Signature (Joint  
Owners)      Date



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**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:**

The Notice and Proxy Statement and Annual Report are available at [www.proxyvote.com](http://www.proxyvote.com).

E28047-P91717

**MEDIDATA SOLUTIONS, INC.**

**Annual Meeting of Stockholders**

**MAY 30, 2017 10:00 A.M. EDT**

**This proxy is solicited by the Board of Directors**

The stockholder(s) hereby appoint(s) Tarek Sherif and Rouven Bergmann, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorize(s) them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of Medidata Solutions, Inc. that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders of Medidata Solutions, Inc. to be held via live webcast at [www.virtualshareholdermeeting.com/medidata2017](http://www.virtualshareholdermeeting.com/medidata2017) on May 30, 2017 at 10:00 A.M. EDT and any adjournment or postponement thereof.

**This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.**

**Continued and to be signed on reverse side**