

Medidata Solutions, Inc.
Form 10-Q
April 30, 2014
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2014
OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission File Number: 001-34387

Medidata Solutions, Inc.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	13-4066508 (I.R.S. Employer Identification No.)
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350 Hudson Street, 9th Floor New York, New York (Address of principal executive offices) (212) 918-1800 (Registrant’s telephone number, including area code)	10014 (Zip Code)
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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of “large accelerated filer”, “accelerated filer”, and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of April 25, 2014, the registrant had 54,095,546 shares of common stock outstanding.

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited)

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MEDIDATA SOLUTIONS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

	March 31, 2014	December 31, 2013
	(Amounts in thousands, except per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$25,406	\$22,328
Marketable securities	196,140	218,892
Accounts receivable, net of allowance for doubtful accounts of \$1,089 and \$1,055, respectively	66,326	45,534
Prepaid commission expense	4,116	3,615
Prepaid expenses and other current assets	12,434	13,511
Deferred income taxes	2,310	665
Total current assets	306,732	304,545
Restricted cash	5,118	5,118
Marketable securities – long-term	181,947	195,105
Furniture, fixtures and equipment, net	40,482	41,229
Goodwill	15,533	15,487
Intangible assets, net	774	904
Deferred income taxes – long-term	348	345
Other assets	9,804	10,620
Total assets	\$560,738	\$573,353
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$5,812	\$7,524
Accrued payroll and other compensation	9,862	27,773
Accrued expenses and other	8,978	12,265
Deferred revenue	57,446	52,628
Total current liabilities	82,098	100,190
Noncurrent liabilities:		
1.00% convertible senior notes, net	232,446	229,705
Deferred revenue, less current portion	3,255	1,430
Deferred tax liabilities	5,654	5,651
Other long-term liabilities	12,085	10,564
Total noncurrent liabilities	253,440	247,350
Total liabilities	335,538	347,540
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value \$0.01 per share; 5,000 shares authorized, none issued and outstanding	—	—
Common stock, par value \$0.01 per share; 100,000 shares authorized, 55,640 and 55,018 shares issued; 54,078 and 53,634 shares outstanding, respectively	556	550
Additional paid-in capital	259,179	248,336
Treasury stock, 1,562 and 1,384 shares, respectively	(36,244)	(26,414)
Accumulated other comprehensive loss	(16)	(199)
Retained earnings	1,725	3,540
Total stockholders' equity	225,200	225,813

Total liabilities and stockholders' equity	\$560,738	\$573,353
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The accompanying notes are an integral part of the condensed consolidated financial statements.

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MEDIDATA SOLUTIONS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

	Three Months Ended March 31,	
	2014	2013
	(Amounts in thousands, except per share data)	
Revenues		
Subscription	\$63,811	\$50,652
Professional services	12,829	12,607
Total revenues	76,640	63,259
Cost of revenues (1)(2)		
Subscription	11,086	9,025
Professional services	9,713	8,104
Total cost of revenues	20,799	17,129
Gross profit	55,841	46,130
Operating costs and expenses:		
Research and development (1)	17,789	11,905
Sales and marketing (1)(2)	20,732	14,489
General and administrative (1)	17,046	12,644
Total operating costs and expenses	55,567	39,038
Operating income	274	7,092
Interest and other (expense) income:		
Interest expense	(3,781	) (18
Interest income	395	76
Other income, net	34	154
Total interest and other (expense) income, net	(3,352	) 212
(Loss) income before income taxes	(3,078	) 7,304
Provision for income taxes	(1,263	) 1,604
Net (loss) income	\$(1,815	) \$5,700
(Loss) earnings per share:		
Basic (3)	\$(0.03	) \$0.11
Diluted (3)	\$(0.03	) \$0.11
Weighted average common shares outstanding:		
Basic (3)	52,109	50,240
Diluted (3)	52,109	52,522
(1) Stock-based compensation expense included in cost of revenues and operating costs and expenses is as follows:		
Cost of revenues	\$1,072	\$487
Research and development	912	458
Sales and marketing	2,351	1,222
General and administrative	5,364	3,038
Total stock-based compensation	\$9,699	\$5,205
(2) Amortization of intangible assets included in cost of revenues and operating costs and expenses is as follows:		
Cost of revenues	\$108	\$281
Sales and marketing	30	113
Total amortization of intangible assets	\$138	\$394

(3) Prior period results have been adjusted to reflect the two-for-one stock split which was effected in the form of a stock dividend in December 2013.

The accompanying notes are an integral part of the condensed consolidated financial statements.

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MEDIDATA SOLUTIONS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (Unaudited)

	Three Months Ended March 31,	
	2014	2013
	(Amounts in thousands)	
Net (loss) income	\$(1,815	) \$5,700
Other comprehensive income (loss):		
Foreign currency translation adjustments	182	(986)
Unrealized gain (loss) on marketable securities	2	(12)
Other comprehensive income (loss):	184	(998)
Income tax (expense) benefit related to unrealized gain or loss on marketable securities	(1	) 5
Other comprehensive income (loss), net of tax	183	(993)
Comprehensive (loss) income, net of tax	\$(1,632	) \$4,707

The accompanying notes are an integral part of the condensed consolidated financial statements.

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MEDIDATA SOLUTIONS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

	Three Months Ended March 31,	
	2014	2013
	(Amounts in thousands)	
Cash flows from operating activities:		
Net (loss) income	\$(1,815	) \$5,700
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities:		
Depreciation and amortization	2,535	1,851
Stock-based compensation	9,699	5,205
Amortization of discounts or premiums on marketable securities	1,431	504
Deferred income taxes	(1,643	) 718
Amortization of debt issuance costs	319	15
Amortization of debt discount	2,741	—
Excess tax benefit associated with equity awards	(71	) (610
Contingent consideration adjustment	—	60
Provision for doubtful accounts	100	657
Changes in operating assets and liabilities:		
Accounts receivable	(25,550	) (4,249
Prepaid commission expense	(499	) (917
Prepaid expenses and other current assets	1,485	684
Other assets	137	(73
Accounts payable	1,083	(1,558
Accrued payroll and other compensation	(9,260	) (6,643
Accrued expenses and other	832	1,518
Deferred revenue	10,653	(287
Other long-term liabilities	1,537	322
Net cash (used in) provided by operating activities	(6,286	) 2,897
Cash flows from investing activities:		
Purchases of furniture, fixtures and equipment	(7,048	) (2,947
Purchases of available-for-sale securities	(46,249	) (27,416
Proceeds from sale of available-for-sale securities	80,730	30,030
Decrease in restricted cash	—	388
Net cash provided by investing activities	27,433	55
Cash flows from financing activities:		
Proceeds from exercise of stock options	1,079	1,655
Proceeds from employee stock purchase plan	1,327	—
Excess tax benefit associated with equity awards	71	610
Payment of acquisition-related earn-out	(704	) (380
Repayment of obligations under capital leases	(30	) (14
Repayment of notes payable	(41	) (38
Acquisition of treasury stock	(19,789	) (126
Net cash (used in) provided by financing activities	(18,087	) 1,707
Effect of exchange rate changes on cash and cash equivalents	18	(51
Net increase in cash and cash equivalents	3,078	4,608
Cash and cash equivalents – Beginning of period	22,328	32,683
Cash and cash equivalents – End of period	\$25,406	\$37,291

The accompanying notes are an integral part of the condensed consolidated financial statements.

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MEDIDATA SOLUTIONS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS, CONTINUED (Unaudited)

	Three Months Ended March 31,	
	2014	2013
Supplemental disclosures of cash flow information:		
Cash paid during the period for:		
Interest	\$1,350	\$14
Income taxes	\$296	\$918
Noncash activities:		
Furniture, fixtures, and equipment acquired but not yet paid for at period-end	\$2,996	\$509
Issuance of notes payable in connection with acquisition-related earn-out payments	\$97	\$341

The accompanying notes are an integral part of the condensed consolidated financial statements.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

1. ORGANIZATION

Medidata Solutions, Inc. (the “Company”) is the leading global provider of cloud-based solutions for clinical research in life sciences, designed to transform clinical development and increase the value of its customers' research investments. The Company’s solutions allow its customers to more efficiently and effectively design, plan and manage key aspects of the clinical trial process, including study and protocol design, trial planning and budgeting, site negotiation, clinical portal, trial management, randomization and trial supply management, clinical data capture and management, safety events capture, medical coding, clinical business analytics, and data flow and interoperability among multiple trial applications.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Except to the extent updated or described below, the Company’s significant accounting policies as of March 31, 2014 are the same as those at December 31, 2013, which are included in the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission (“SEC”) on February 24, 2014.

Basis of Presentation — The accompanying interim condensed consolidated balance sheets as of March 31, 2014 and December 31, 2013, the condensed consolidated statements of operations for the three months ended March 31, 2014 and 2013, the condensed consolidated statements of comprehensive income for the three months ended March 31, 2014 and 2013, and the condensed consolidated statements of cash flows for the three months ended March 31, 2014 and 2013 are unaudited and have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and applicable rules and regulations of the SEC for interim financial reporting. Accordingly, certain information and footnote disclosures have been condensed or omitted pursuant to SEC rules that would ordinarily be required by GAAP for complete financial statements. These unaudited interim condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and accompanying notes thereto for the fiscal year ended December 31, 2013 included in the Company’s Annual Report on Form 10-K filed with the SEC on February 24, 2014.

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all adjustments consisting of normal recurring accruals considered necessary to present fairly the Company’s financial position as of March 31, 2014, results of its operations for the three months ended March 31, 2014 and 2013, comprehensive income for the three months ended March 31, 2014 and 2013, and cash flows for the three months ended March 31, 2014 and 2013. The results of operations for the three months ended March 31, 2014 are not necessarily indicative of the results that may be expected for the year ending December 31, 2014.

All share and per share data for all periods presented herein reflect the impact of a two-for-one stock split which was effected in the form of a stock dividend in December 2013.

Stock-Based Compensation — The Company follows Accounting Standards Codification (“ASC”) 718, Compensation—Stock Compensation to account for all of its stock-based compensation plans.

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes pricing model. The Company uses stock price volatility of its publicly-traded stock as a basis for determining the expected volatility. Management believes this is the best estimate of the expected volatility over the weighted-average expected life of its option grants. As the Company does not have sufficient historical exercise data in the period since its stock began being publicly traded to provide a reasonable basis upon which to estimate the expected life, the Company uses the simplified method as permitted under SEC Staff Accounting Bulletin No. 110 for estimating the expected life of options as all of its options qualify as “plain-vanilla” options. The risk-free interest rate is based on the United States Treasury yield curve in effect at the time of the option grant with a maturity tied to the expected life of the options. No dividends are expected to be declared by the Company at this time. Compensation expense for stock options is recognized, net of estimated forfeitures, on a straight-line basis over the vesting period.

The fair value of each nonvested restricted stock award ("RSA") is measured as if the nonvested RSA was vested and issued on the grant date. Compensation expense for RSAs is recognized, net of estimated forfeitures, on a straight-line basis over the vesting period.

The fair value of each performance-based restricted stock unit ("PBRSU") whose vesting is dependent on the achievement of a market price target, or a "market condition," is estimated based upon the results of a Monte Carlo valuation model as of the grant date in accordance with accounting guidelines. Compensation expense related to PBRsUs with a market condition is recognized, net of estimated forfeitures, on a straight-line basis over the vesting period. The fair value of each PBRsU whose vesting is dependent on the satisfaction of a performance target, or a "performance condition," is measured as if the PBRsU was vested and issued on the grant date and adjusted in each reporting period for expected performance relative to the associated goals. Compensation expense related to PBRsUs with a performance condition is recognized when it is probable that the condition will be achieved, net of estimated forfeitures, on a straight-line basis over the vesting period. The compensation expense ultimately recognized will equal the grant date fair value for the number of shares for which the performance condition has been satisfied.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

The fair value of each employee stock purchase plan ("ESPP") share is estimated using the Black-Scholes pricing model. The Company uses stock price volatility of its publicly-traded stock as a basis for determining the expected volatility. Management believes this is the best estimate of the expected volatility over the weighted-average expected life of the ESPP shares. The expected life of each ESPP share is equivalent to the time between the beginning of the offering period and the end of the related purchase period. The risk-free interest rate is based on the United States Treasury yield curve in effect at the beginning of the offering period with a maturity tied to the expected life of the ESPP share. No dividends are expected to be declared by the Company at this time. Compensation expense for ESPP shares is recognized, net of estimated forfeitures, on a straight-line basis over the term of the offering period.

Income Taxes — The Company uses the asset and liability method of accounting for income taxes, as prescribed by ASC 740, Income Taxes, which recognizes deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized.

All of the taxes accrued on the Company's undistributed earnings from its foreign subsidiaries are included in U.S. current income taxes under Internal Revenue Code Section 956. As a result, no deferred income tax liability associated with the Company's undistributed earnings was recorded.

The Company follows ASC 740-10 for the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the consolidated financial statements. Under ASC 740-10, the Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position.

For the provision for income taxes at interim periods, the Company follows ASC 740-270, Income Taxes — Interim Reporting, and has developed an estimate of the annual effective tax rate based upon the facts and circumstances known at the time. The Company's effective tax rate is based on expected income, statutory rates and permanent differences applicable to the Company in the various jurisdictions in which the Company operates.

Accounts Receivable — Accounts receivable are recorded at original invoice amount less an allowance that management believes will be adequate to absorb estimated losses on existing accounts receivable. The allowance is based on an evaluation of the collectability of accounts receivable and prior bad debt experience. Accounts receivable are written off when deemed uncollectible. Unbilled receivables consist of revenue recognized in excess of billings, substantially all of which is expected to be billed and collected within one year. As of March 31, 2014 and December 31, 2013, unbilled accounts receivable of \$6.2 million and \$9.5 million, respectively, are included in accounts receivable on the Company's consolidated balance sheets.

Segment Information — As defined by ASC 280, Segment Reporting, the Company operates as a single segment, as the chief operating decision maker makes operating decisions and assesses performance based on a single operating unit. The Company recorded revenues in the following geographic areas for the three months ended March 31, 2014 and 2013 (in thousands):

	Three Months Ended March 31,	
	2014	2013
Revenues:		
United States of America	\$55,789	\$44,854
Japan	7,957	7,833
Switzerland	4,014	2,921
Other	8,880	7,651
Total	\$76,640	\$63,259

Revenues by geographic area are presented based upon the country in which revenues were generated. No individual country other than the United States, Japan and Switzerland represented 5% or more of net revenues for any of the periods presented.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

The following table summarizes long-term assets by geographic area as of March 31, 2014 and December 31, 2013 (in thousands):

	March 31, 2014	December 31, 2013
Long-term assets:		
United States of America	\$239,406	\$254,453
United Kingdom	9,516	10,041
Japan	5,084	4,314
Total	\$254,006	\$268,808

Recently Issued Accounting Pronouncements — In July 2013, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2013-11, Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. This ASU amends ASC 740, Income Taxes, to require that an unrecognized tax benefit be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward; to the extent that a net operating loss carry forward, a similar tax loss, or a tax credit carryforward does not exist at the reporting date, the unrecognized tax benefit should be presented in the financial statements as a liability and not combined with deferred tax assets. ASU No. 2013-11 is effective for interim and annual reporting periods beginning after December 15, 2013. The Company adopted ASU No. 2013-11 on January 1, 2014, and the adoption did not have a material impact on its consolidated financial statements.

3. STOCKHOLDERS' EQUITY

Common Stock — Common stockholders are entitled to one vote for each share of common stock held. Common stockholders may receive dividends if and when the Board of Directors determines at its sole discretion.

In December 2013, the Company announced a two-for-one split of its common stock, effected in the form of a stock dividend. The record date for the stock split was December 2, 2013, and the additional shares were distributed on December 16, 2013. Each shareholder of record as of the close of business on the record date received one additional share of common stock for each share held.

Treasury Stock — From time to time, the Company grants nonvested RSAs and PBRsUs to its employees pursuant to the terms of the 2009 Long-Term Incentive Plan (the "2009 Plan"). Under the provisions of the 2009 Plan, the plan participants are allowed to cover their income tax withholding obligation through net shares upon the vesting of their RSAs or PBRsUs. On the date of vesting, the Company determines the number of shares to be withheld based on their fair value at the closing price of the Company's common stock on the vesting date, in order to equal the amount of the plan participant's income tax withholding obligation. Those withheld shares are then held in the Company's treasury stock at cost for future reissuance. During the first three months of 2014, the Company withheld 164,738 shares at an average price of \$59.67 in connection with the vesting of its RSAs and PBRsUs.

4. MARKETABLE SECURITIES

The Company manages its cash equivalents and marketable securities as a single investment portfolio that is intended to be available to meet the Company's current cash requirements. Cash equivalents consist primarily of investments in money market funds. Marketable securities, which the Company classifies as available-for-sale securities, primarily consist of high quality commercial paper, corporate bonds, and U.S. government debt obligations. Marketable securities with remaining effective maturities of twelve months or less from the balance sheet date are classified as short-term; otherwise, they are classified as long-term on the consolidated balance sheet.

The following table provides the Company's marketable securities by security type as of March 31, 2014 and December 31, 2013 (in thousands):

As of March 31, 2014			
Cost	Gross Unrealized	Gross Unrealized	Estimated Fair

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		Gains	Losses	Value
Commercial paper and corporate bonds	\$365,157	\$142	\$(217)) \$365,082
U.S. government agency debt securities	13,000	5	—	13,005
Total	\$378,157	\$147	\$(217)) \$378,087

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

	As of December 31, 2013			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper and corporate bonds	\$378,135	\$122	\$(196)	) \$378,061
U.S. government agency debt securities	35,934	3	(1)	) 35,936
Total	\$414,069	\$125	\$(197)	) \$413,997

Contractual maturities of the Company's marketable securities as of March 31, 2014 and December 31, 2013 are summarized as follows (in thousands):

	As of March 31, 2014		As of December 31, 2013	
	Cost	Estimated Fair Value	Cost	Estimated Fair Value
Due in one year or less	\$196,140	\$196,140	\$218,941	\$218,892
Due in one to five years	182,017	181,947	195,128	195,105
Total	\$378,157	\$378,087	\$414,069	\$413,997

The following table provides the fair market value and the gross unrealized losses of the Company's marketable securities with unrealized losses that are not deemed to be other-than-temporarily impaired, aggregated by security type as of March 31, 2014 and December 31, 2013 (in thousands):

	In Loss Position for Less than 12 Months			
	As of March 31, 2014		As of December 31, 2013	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Commercial paper and corporate bonds	\$217,329	\$(217)	) \$241,381	\$(196)
U.S. government agency debt securities	—	—	) 10,910	(1)
Total	217,329	(217)	) 252,291	(197)

None of the Company's marketable securities has been in a continuous unrealized loss position for more than twelve months as of March 31, 2014 and December 31, 2013.

The Company regularly reviews its investment portfolio to identify and evaluate investments that have indications of possible impairment. Factors considered in determining whether a loss is temporary include:

- the length of time and extent to which fair value has been lower than the cost basis;
- the financial condition, credit quality and near-term prospects of the investee; and
- whether it is more likely than not that the Company will be required to sell the security prior to recovery.

As the Company has the ability and intent to hold these investments until a recovery of fair value, which may be at maturity, the Company has determined that the gross unrealized losses on such investments at March 31, 2014 are temporary in nature. Accordingly, the Company did not consider its investments in marketable securities to be other-than-temporarily impaired as of March 31, 2014.

During the three months ended March 31, 2014 and 2013, the Company recorded an insignificant amount of net realized gain or loss from the sale of marketable securities.

5. FAIR VALUE

ASC 820-10, Fair Value Measurements and Disclosures, establishes a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value and enhances disclosure requirements for fair value measurements. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under ASC

820-10 are described as follows:

Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

Level 2 - Other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including:

• quoted prices for similar assets or liabilities in active markets;

• quoted prices for identical or similar assets or liabilities in markets that are not active;

• inputs other than quoted prices that are observable for the asset or liability;

• inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 inputs must be observable for substantially the full term of the asset or liability.

Level 3 - Unobservable inputs to the valuation methodology that are significant to the fair value measurement for the asset or liability.

Financial assets (excluding cash balances) measured at fair value on a recurring basis as of March 31, 2014 and December 31, 2013 are summarized as follows (in thousands):

	As of March 31, 2014				As of December 31, 2013			
	Fair Value Measurement Using				Fair Value Measurement Using			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Money market funds	\$9,184	\$—	\$—	\$9,184	\$751	\$—	\$—	\$751
Total cash equivalents	9,184	—	—	9,184	751	—	—	751
Commercial paper and corporate bonds	—	365,082	—	365,082	—	378,061	—	378,061
U.S. government agency debt securities	—	13,005	—	13,005	—	35,936	—	35,936
Total marketable securities	—	378,087	—	378,087	—	413,997	—	413,997
Total financial assets	\$9,184	\$378,087	\$—	\$387,271	\$751	\$413,997	—	\$414,748

The Company's financial assets that are measured at fair value on a recurring basis are generally classified within Level 1 or Level 2 of the fair value hierarchy. Investments in money market funds have been classified as Level 1 since these securities are valued based upon \$1.00 net asset value per share or unadjusted quoted prices in active markets. Investments in commercial paper, corporate bonds, and U.S. government agency debt securities have been classified as Level 2 since these securities are valued based on quoted prices in less active markets or significant inputs which are directly or indirectly observable. The valuation techniques used to measure the fair values of corporate bonds and U.S. government agency debt securities were derived from the inputs of market prices from multiple sources at each reporting period. The fair value was then determined based on a consensus price or a weighted average price for each security. For the remaining financial assets classified as Level 2, substantially all of the securities had a short maturity within one year and high credit ratings. Therefore, the valuation techniques used to measure the fair values were primarily derived from accretion of purchase price to its face value over the term of maturity or quoted market prices for similar instruments if available. During the three months ended March 31, 2014 and 2013, there were no transfers of financial assets between Level 1 and Level 2.

The carrying amounts of all other current financial assets and current financial liabilities reflected in the consolidated balance sheets approximate fair value due to their short-term nature. The Company does not have non-financial assets or liabilities that have been measured at fair value on a nonrecurring basis as of March 31, 2014.

6. GOODWILL AND INTANGIBLE ASSETS

The change in the carrying amount of goodwill during the three months ended March 31, 2014 is as follows (in thousands):

Balance as of January 1, 2014	\$15,487
Foreign currency translation adjustments	46

Balance as of March 31, 2014

\$15,533

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

Intangible assets are summarized as follows (in thousands):

	As of March 31, 2014			As of December 31, 2013		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired technology	\$4,145	\$(3,599)	\$546	\$4,129	\$(3,481)	\$648
Customer relationships	2,078	(1,850)	228	2,074	(1,818)	256
Total	\$6,223	\$(5,449)	\$774	\$6,203	\$(5,299)	\$904

Annual amortization for the next five years is expected to be as follows (in thousands):

Remainder of year ending December 31, 2014	\$417
Years ending December 31,	
2015	290
2016	48
2017	19

7. DEBT

In August 2013, the Company issued at par value \$287.5 million of 1.00% convertible senior notes (the "Notes"). Interest is payable semi-annually in arrears on August 1 and February 1 of each year, beginning on February 1, 2014. The Notes mature on August 1, 2018 unless repurchased or converted in accordance with their terms prior to such date. The Company may not redeem the Notes prior to their maturity date. The Notes are the Company's senior unsecured obligations and are governed by an indenture dated August 12, 2013 between the Company, as issuer, and Wells Fargo Bank, National Association, as trustee.

Upon conversion of the Notes, the Company may choose to pay or deliver, as applicable, either cash, shares of the Company's common stock, or a combination thereof. If converted, holders of the Notes will receive, at the Company's election, cash and/or shares for the principal amount of the Notes as well as any amounts in excess of principal. The Company intends to settle the principal amount of the Notes in cash if converted.

The initial conversion rate is 17.2286 shares of the Company's common stock per \$1,000 principal amount of Notes, which is equivalent to an initial conversion price of approximately \$58.05 per share of common stock. The conversion rate will be subject to adjustment upon occurrence of certain events, including, but not limited to, the issuance of stock dividends or payment of cash dividends on the Company's common stock (unless the holders of the Notes participate at the same time and under the same terms as the holders of common stock), or execution of a share split or share combination. Upon conversion, holders of the Notes will not receive any separate cash payment representing accrued and unpaid interest, unless conversion occurs after close of business on a regular record date and prior to the related interest payment date.

Holders may convert their Notes at their option at any time prior to the close of business on the business day immediately preceding February 1, 2018 only under the following circumstances:

during any calendar quarter commencing after the calendar quarter ending on December 31, 2013 (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price per \$1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on such trading day; or

upon the occurrence of certain corporate events described in the indenture governing the Notes.

On or after February 1, 2018 until close of business on the business day immediately preceding the maturity date, holders may convert their Notes at any time, regardless of the foregoing circumstances. If the Company undergoes a

fundamental change as defined in the indenture governing the Notes, holders may require the Company to repurchase for cash all of their Notes at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased plus accrued and unpaid interest.

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In accounting for the issuance of the Notes, the Company separated the Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the Notes as a whole. The excess of the par value over the fair value of the debt represents the debt discount, which is amortized to interest expense over the term of the Notes. The equity component is not remeasured as long as it continues to meet the conditions for equity classification.

In accounting for the \$8.1 million in issuance costs related to the Note issuance, the Company allocated the total amount incurred to the liability and equity components based on their relative values. The \$6.4 million in issuance costs attributed to the liability component were capitalized and are amortized to interest expense over the term of the Notes. The \$1.7 million in issuance costs attributed to the equity component were netted against the equity component in additional paid-in capital.

As of March 31, 2014, the remaining unamortized debt issuance costs related to the Notes were \$5.5 million.

The components of the Notes are summarized as follows (in thousands):

	March 31, 2014	December 31, 2013
Equity component, net of equity issue costs	\$60,222	\$60,222
Liability component:		
Principal	287,500	287,500
Less: unamortized debt discount	(55,054	) (57,795
Net carrying amount	\$232,446	\$229,705

The Notes are carried at face value less any unamortized discount, but require a disclosure of an estimate of fair value. As of March 31, 2014 and December 31, 2013, the estimated fair value of the Notes was \$345.7 million and \$365.1 million, respectively, which the Company considers to be a Level 2 measurement because it is based upon a recent quoted bid price for the Notes, reflecting market activity in a less than active market. As of March 31, 2014, the Notes are not convertible. Based on the closing price of the Company's common stock on March 31, 2014 of \$54.34, which is less than the Notes' initial conversion price of \$58.05, the if-converted value of the Notes was less than their principal amount.

As of March 31, 2014, the remaining life of the Notes is approximately 52 months.

The following table sets forth total interest expense recognized related to the Notes for the three months ended March 31, 2014 (in thousands except percentages):

Contractual interest expense	\$711
Amortization of debt issuance costs	319
Amortization of debt discount	2,741
Total	\$3,771
Effective interest rate	6.5

%

8. STOCK-BASED COMPENSATION

The Company accounts for stock-based compensation in accordance with ASC 718, Compensation — Stock Compensation. For the three months ended March 31, 2014 and 2013, the components of stock-based compensation expense are summarized in the following table (in thousands):

	Three Months Ended March 31, 2014	2013
Stock options	\$1,214	\$962
Restricted stock awards	3,169	3,182
Performance-based restricted stock units	4,750	1,061

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Employee stock purchase plan	566	—
Total stock-based compensation	\$9,699	\$5,205

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Stock Options

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes pricing model with the following weighted-average assumptions:

	Three Months Ended March 31,	
	2014	2013
Expected volatility	42	% —
Expected life	6 years	—
Risk-free interest rate	1.76	% —
Dividend yield	—	—

The following table summarizes the activity under the stock option plans as of March 31, 2014, and changes during the three months then ended (in thousands, except per share data):

	Number of Shares	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at January 1, 2014	2,670	\$ 16.00		
Granted	60	62.95		
Exercised	(125	) 8.65		
Forfeited	(23	) 34.17		
Expired	—	—		
Outstanding at March 31, 2014	2,582	\$ 17.28	7.14	\$96,571
Exercisable at March 31, 2014	1,366	\$ 9.25	5.95	\$61,598
Vested and expected to vest at March 31, 2014	2,532	\$ 16.92	7.11	\$95,571

The weighted-average grant-date fair value of stock options granted during the three months ended March 31, 2014 and 2013 was \$26.79 and none, respectively. The total intrinsic value of stock options exercised during the three months ended March 31, 2014 and 2013 was \$6.8 million and \$4.4 million, respectively. As of March 31, 2014, there was a total of \$12.5 million of unrecognized compensation cost related to all non-vested stock options granted, as recorded in accordance with ASC 718. This cost is expected to be recognized over a weighted-average remaining period of 2.48 years. The total fair value of stock options vested during the three months ended March 31, 2014 and 2013 was \$0.7 million and \$0.9 million, respectively.

Restricted Stock Awards

The following table summarizes the status of the Company's nonvested RSAs as of March 31, 2014, and changes during the three months then ended (in thousands, except per share data):

	Number of Shares	Weighted- Average Grant-Date Fair Value
Nonvested at January 1, 2014	1,672	\$ 18.06
Granted	270	54.70
Vested	(134	) 24.22
Forfeited	(13	) 15.34
Nonvested at March 31, 2014	1,795	\$ 23.14

As of March 31, 2014, there was a total of \$34.5 million of unrecognized compensation cost related to all nonvested RSAs granted, as recorded in accordance with ASC 718. This cost is expected to be recognized over a

weighted-average remaining period of 2.19 years. The total fair value of RSAs vested during the three months ended March 31, 2014 and 2013 was \$8.4 million and \$0.2 million, respectively.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

Performance-Based Restricted Stock Units

During the three months ended March 31, 2014 the Company granted PBRsUs to certain employees including executives. Of the number of PBRsUs granted during the three months ended March 31, 2014, which assumes performance at 100% of targeted levels, (1) 149 thousand PBRsUs ("Revenue PBRsUs") have performance conditions based on revenue for the year ending December 31, 2014 relative to the Company's revenue guidance and a minimum profitability condition, vesting annually over three years commencing on the first anniversary of the grant date, with the number of PBRsUs ultimately earned ranging from zero to 200% of the original award; and (2) 74 thousand PBRsUs ("TSR PBRsUs") have market conditions based on the Company's total stockholder return ("TSR") relative to that of the NASDAQ Composite Index for the year ending December 31, 2014, vesting annually over three years commencing on the first anniversary of the grant date, with the number of PBRsUs ultimately earned ranging from zero to 200% of the original award. The Company also granted an insignificant number of other PBRsUs with performance conditions based on achievement of certain predetermined objectives.

The fair value of each TSR PBRsU is estimated as of the date of grant based upon evaluation of expected performance relative to the associated market condition using a Monte Carlo valuation model with the following weighted-average assumptions:

	Three Months Ended March 31,		
	2014	2013	
Expected volatility - Medidata	52	% 39	%
Expected volatility - NASDAQ Composite Index	13	% 15	%
Risk-free interest rate	0.12	% 0.16	%
Expected term	0.89 years	1.00 year	

The following table summarizes the status of the Company's PBRsUs based upon expected performance as of March 31, 2014, and changes during the three months then ended (in thousands, except per share data):

	Revenue	TSR	Long-Term	Other	Total	Weighted-Average
					Number of	Grant Date
					Shares	Fair Value
Nonvested at January 1, 2014	454	227	1,012	9	1,702	\$ 29.18
Granted (based on performance at 100% of targeted levels)	149	74	—	5	228	54.01
Adjustment related to expected performance	—	—	—	(5	) (5	) 67.01
Vested	(151	) (76	) —	—	(227	) 26.33
Forfeited	—	—	—	—	—	—
Nonvested at March 31, 2014	452	225	1,012	9	1,698	\$ 32.79

As of March 31, 2014, there was a total of \$40.6 million of unrecognized compensation cost related to all nonvested PBRsUs, as recorded in accordance with ASC 718. This cost is expected to be recognized over a weighted-average remaining period of 2.04 years. The total fair value of PBRsUs vested during the three months ended March 31, 2014 and 2013 was \$13.3 million and none, respectively.

Employee Stock Purchase Plan

The Company's Board of Directors has adopted the Amended and Restated 2014 Employee Stock Purchase Plan, which will be effective as of January 1, 2014 if approved by the Company's stockholders at the 2014 Annual Meeting of Stockholders. The ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions, and consists of a 24-month offering period with four six-month purchase periods in each offering period. Employees purchase shares at the lesser of (1) 85% of the fair market value ("FMV") per share on the first day of the offering period, or (2) 85% of the FMV per share at the end of the relevant purchase period. As such, the ESPP is considered to be a compensatory plan under ASC 718. A total of 0.3 million shares of common

stock is reserved for issuance under the ESPP, pending approval of the Company's stockholders at the 2014 Annual Meeting of Stockholders.

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The fair value of ESPP shares is estimated using the Black-Scholes pricing model with the following weighted-average assumptions:

	Three Months Ended March 31,	
	2014	2013
Expected volatility	49	% —
Expected life	1.22 years	—
Risk-free interest rate	0.21	% —
Dividend yield	—	—

As of March 31, 2014, there was \$4.0 million in unrecognized compensation cost related to ESPP shares, expected to be recognized over a weighted-average remaining period of 1.75 years.

9. ACCUMULATED OTHER COMPREHENSIVE LOSS

The changes in the balances of each component of accumulated other comprehensive loss during the three months ended March 31, 2014 are as follows (in thousands):

	Foreign Currency Translation Adjustments	Unrealized Losses On Available-For-Sale Securities	Total
Balance as of January 1, 2014	\$(127)	\$ (72)	\$(199)
Other comprehensive income, net of tax	182	1	183
Balance as of March 31, 2014	\$55	\$ (71)	\$(16)

For the three months ended March 31, 2014, reclassifications of items from accumulated other comprehensive loss to net loss were insignificant.

10. EARNINGS PER SHARE

The Company follows ASC 260, Earnings Per Share, in calculating earnings per share. Basic earnings per share is calculated by dividing net income available to common stockholders by the weighted-average number of shares outstanding during the period. The holders of unvested RSAs do not have nonforfeitable rights to dividends or dividend equivalents and therefore, such unvested awards do not qualify as participating securities and are excluded from the basic earnings per share calculation. Diluted earnings per share includes the determinants of basic net income per share and, in addition, gives effect to the potential dilution that would occur if securities or other contracts to issue common stock are exercised, vested or converted into common stock unless they are antidilutive. The effect of the Notes, if any, is reflected in diluted earnings per share using the treasury stock method as the Company intends to settle the principal amount of the Notes in cash upon conversion.

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All share and per share data for all periods presented reflect the impact of a two-for-one stock split which was effected in the form of a stock dividend in December 2013. A reconciliation of the numerators and denominators of basic (loss) earnings per share and diluted (loss) earnings per share for the three months ended March 31, 2014 and 2013 are shown in the following table (in thousands, except per share data):

	Three Months Ended March 31,	
	2014	2013
Numerator		
Net (loss) income	\$(1,815	) \$5,700
Denominator		
Denominator for basic earnings (loss) per share:		
Weighted average common shares outstanding	52,109	50,240
Denominator for diluted earnings (loss) per share:		
Dilutive potential common shares:		
Stock options	—	1,442
Restricted stock awards	—	830
Performance-based restricted stock units	—	10
Weighted average common shares outstanding with assumed conversion	52,109	52,522
Basic (loss) earnings per share	\$(0.03	) \$0.11
Diluted (loss) earnings per share	\$(0.03	) \$0.11

Antidilutive common stock equivalents excluded from the calculation of dilutive (loss) earnings per share for the three months ended March 31, 2014 and 2013 are shown in the following table (in thousands, except per share data):

	Three Months Ended March 31,	
	2014	2013
Stock options	2,625	126
Restricted stock awards	1,759	6
Performance-based restricted stock units	1,713	2
Employee stock purchase plan	243	—
Convertible notes	234	—
Total	6,574	134

11. INCOME TAXES

The Company's effective tax rate for the three months ended March 31, 2014 was 41% and differed from the federal statutory rate of 35% primarily due to state and local income taxes, investment in U.S. property under Internal Revenue Code Section 956 and stock-based compensation, partially offset by benefit associated with domestic production activities deduction.

The Company's effective tax rate for the three months ended March 31, 2013 was 22% and differed from the federal statutory rate of 35% primarily due to state and local income taxes, stock-based compensation, research and development tax credits, and limitations on officers' compensation. The Company recognized as a favorable discrete item a research and development tax credit of \$1.2 million, resulting from the retroactive reinstatement of the research and development tax credit for 2012 during the first quarter of 2013.

The Company had approximately \$4.1 million of gross unrecognized tax benefits as of December 31, 2013. For the three months ended March 31, 2014, there was no change relating to the Company's tax positions. In April 2014, the Company was informed by the Internal Revenue Service that its 2012 federal income tax return has been selected for examination.

12. COMMITMENTS AND CONTINGENCIES

Legal Matters — The Company is subject to legal proceedings and claims that arise in the ordinary course of business. From time to time, third parties have asserted and may in the future assert intellectual property rights to technologies

that are important to the Company's business and have demanded and may in the future demand that the Company license their technology. The Company records an estimated liability for these matters when an adverse outcome is considered to be probable and can be reasonably estimated. Although the outcome of the litigation cannot be predicted with certainty and some lawsuits,

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

claims, or proceedings may be disposed of unfavorably to the Company, which could materially and adversely affect its financial condition or results of operations, the Company does not believe that it is currently a party to any material legal proceedings.

On March 4, 2011, DataTrak International, Inc. ("DataTrak") filed a complaint for alleged patent infringement against the Company in DataTrak International v. Medidata Solutions, C.A. No. 1:11-cv-00458 in the U.S. District Court for the Northern District of Ohio. The complaint asserts infringement of U.S. Patent No. 7,464,087 (the "'087 Patent"), which claims a method and system for unifying data from a variety of sources. The complaint asserts that the Company infringes upon the patent owned without providing any details concerning the alleged infringement, and it seeks unspecified damages and injunctive relief. On October 28, 2011, the Company filed an application for ex parte reexamination of the '087 Patent with the U.S. Patent and Trademark Office (the "PTO"). On December 16, 2011, the PTO issued a non-final rejection of the validity of all claims of the '087 Patent. On the same date, the district court granted the Company's motion to stay the case pending reexamination of the patent-in-suit. On April 6, 2012, the PTO issued its final office action rejecting all asserted claims of the '087 Patent. In July 2012, DataTrak filed a notice of appeal to the Board of Patent Appeals and Interferences (the "BPAI"). The BPAI rendered a decision on March 4, 2014, affirming the rejection of some claims of the '087 Patent and reversing the rejection of other claims. The PTO has not yet issued a notice of intent to issue ex parte reexamination certificate, which is expected to confirm patentability of the remaining claims and will close the current reexamination proceeding.

The Company believes that it has valid defenses to the lawsuit and intends to defend itself vigorously in the event the reexamination certificate issues and the stay of the case is lifted. The probability of a favorable or unfavorable outcome to the Company should the lawsuit resume is not known nor can the liability that could potentially result from a negative outcome be reasonably estimated. As a result, the Company has not recorded an accrual associated with this litigation. Additionally, given the early stage of the proceedings, the complexities of the facts in dispute and the multiple claims involved, the Company is unable to estimate a range of loss related to this litigation.

Contractual Warranties — The Company typically provides contractual warranties to its customers covering its solutions and services. To date, any refunds provided to customers have been immaterial.

Change in Control Agreements — The Company has change in control agreements with its chief executive officer and certain other executive officers. These agreements provide for payments to be made to such officers upon involuntary termination of their employment by the Company without cause or by such officers for good reason as defined in the agreements, within a period of 2 years following a change in control. The agreements provide that, upon a qualifying termination event, such officers will be entitled to (a) a severance payment equal to the officer's base salary plus target bonus amount; (b) continuation of health benefits for 12 months; and (c) immediate vesting of any remaining unvested equity awards, unless otherwise specified in the equity award agreements.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act. Forward-looking statements reflect our current estimates, expectations and projections about our future results, performance, prospects and opportunities. Forward-looking statements include, among other things, the information concerning our possible future results of operations, business and growth strategies, financing plans, expectations that regulatory developments or other matters will not have a material adverse effect on our business or financial condition, our competitive position and the effects of competition, the projected growth of the industry in which we operate, the benefits and synergies to be obtained from our completed and any future acquisitions, and statements of management's goals and objectives, and other similar expressions concerning matters that are not historical facts. Words such as "may," "should," "could," "would," "predicts," "potential," "continue," "expects," "anticipates," "future," "intends," "plans," "believes," "estimates," "appears," "projects" and similar expressions, as well as statements in the future tense, identify forward-looking statements. Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by which, such performance or results will be achieved. Forward-looking information is based on information available at the time and/or management's good faith belief with respect to future events, and is subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the statements. Important factors that could cause such differences include, but are not limited to the factors discussed under the "Risk Factors" section included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed with the Securities and Exchange Commission, or SEC, on February 24, 2014.

The following is a discussion and analysis of our financial condition and results of operations and should be read together with our condensed consolidated financial statements and related notes to condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q and our audited consolidated financial statements and related notes to audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013.

Overview

We are the leading global provider of cloud-based solutions for clinical research in life sciences, designed to transform clinical development and increase the value of our clients' research investments. Our platform technology and solutions address the life cycle of the clinical process, enhancing productivity and quality by speeding time to market, reducing costs, increasing therapeutic value and minimizing operational and program risk.

Our clients are life sciences companies that create and test new drugs, vaccines, devices, diagnostics and other treatments and create new uses and markets for existing treatments. They include pharmaceutical, biotechnology, medical device and diagnostic companies, academic institutions and medical centers, contract research organizations, or CROs, and other organizations engaged in clinical testing.

Our solutions allow our clients to increase the value of their development programs by more efficiently and effectively designing, planning, and managing key aspects of the clinical trial process, including study and protocol design, trial planning and budgeting, site negotiation, clinical portal, trial management, randomization and trial supply management, clinical data capture and management, safety events capture, medical coding, clinical business analytics, and data flow and interoperability among multiple trial applications. Our clients rely on our solutions to safely accelerate the clinical development process, enhancing decision-making and saving resources in the development life cycle.

The demand for electronic clinical solutions, such as those provided by us, has been driven by the increasing complexity and cost associated with paper-based trials and inefficiencies with early generation electronic data capture, or EDC, solutions. Paper-based trials may delay the clinical development process, impair data quality and prevent real-time decision making, while traditional EDC solutions have faced challenges with integration, site requirements, customization and scalability.

We have grown our revenues significantly since inception by expanding our customer base, increasing penetration with existing clients, selling multiple solutions under our clinical cloud-based platform, enhancing our solutions and services and growing our indirect channel. In order to achieve and sustain our growth objectives, we have invested in

and will continue to invest in key areas, including: new personnel, particularly in direct domestic and international sales activities and research and development; resources to support our offerings, including new and expanded technologies and solution capabilities; marketing programs to build brand awareness; and infrastructure to support growth.

We derive a majority of our subscription revenues through multi-study arrangements which grant customers the right to use our solutions for a predetermined number of studies. We also offer our solutions on a single-study basis under which customers may use our platform for a limited number of studies or evaluate it prior to committing to multi-study arrangements. We invest heavily in training our clients, their investigators and other third parties to assume some or all of the implementation and management activities associated with our solutions. We believe this knowledge transfer accelerates client adoption and provides a better basis for a transformative approach to future development.

We use a number of metrics to evaluate and manage our business. These metrics include revenue growth, customer growth, customer retention rate, revenues from lost customers, geographic contribution, and subscription backlog.

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Our customer base has grown from 219 at January 1, 2011 to 420 at March 31, 2014. Our relationships with some of these customers include multiple divisions and business units at various domestic and international locations. We generate revenues from sales to new clients as well as sales and renewals from our existing clients. Our global direct sales organization represents our primary source of sales, with an increasing volume of sales generated through our CRO relationships. Our customer retention rate was 97.7% and 98.0% for the three months ended March 31, 2014 and 2013, respectively. We calculate customer retention based upon the number of clients that existed both at the beginning and end of the relevant period. Revenues from lost customers for the three months ended March 31, 2014 and 2013 accounted for 0.2% and 0.1%, respectively, of total prior year revenues. To calculate the impact of customers lost during the period, we consider the revenues recognized from lost customers during the most recent prior fiscal year as a percentage of total company revenues from the same period. Traditionally, we maintain a high percentage of customer retention and hence the revenue impact from lost customers is insignificant to our total revenues. We believe revenues from lost customers coupled with customer retention rate give the best sense of volume and scale of customer loss and retention. Our presentation of customer retention and revenues from lost customers may differ from other companies in our industry.

We manage our business as one reportable segment. We generate the majority of our revenues from sales to customers located in the United States. However, revenues generated from customers located in Europe and Asia (including Australia) represent a significant portion of overall revenues. For the three months ended March 31, 2014, revenues generated from customers located in Europe, or European revenues, increased 21% year over year. As a percentage of total revenues, our European revenues represented approximately 15% of total revenues for each of the three month periods ended March 31, 2014 and 2013. For the three months ended March 31, 2014, revenues generated from customers located in Asia, or Asian revenues, increased 5% year over year. As a percentage of total revenues, our Asian revenues represented approximately 12% of total revenues for the three months ended March 31, 2014 as compared with 13% in the prior period. We expect sales to customers in Europe and Asia to continue to represent a significant portion of total sales as we continue to serve existing and new clients in these markets.

We monitor subscription backlog as an indicator of the underlying health of our business. Our subscription backlog solely relates to our cloud-based offerings, representing the total future contract value of outstanding multi-study and single-study arrangements, billed and unbilled, at a point in time. Subscription revenues generated in any given period are a function of revenues recognized from the beginning of period subscription backlog, contract renewals, and new customer contracts. For this reason, subscription backlog at the beginning of any period is not necessarily indicative of long-term future performance. In addition, our subscription backlog does not include revenues associated with intra-year contract renewals. We monitor the amount of revenues expected to be recognized from subscription backlog over the current fiscal year while updating subscription backlog each quarter to indicate how much remains to be recognized within the year. As of January 1, 2014, we had full year subscription backlog of approximately \$228 million. The remaining amount of revenue to be recognized from subscription backlog in the current year, or remaining subscription backlog, as of March 31, 2014 is approximately \$177 million. Our presentation of backlog may differ from other companies in our industry.

We consider the global adoption of clinical development technologies to be essential to our future growth. Our future growth will also depend on our ability to sustain high levels of customer satisfaction and our ability to increase sales to existing clients. In addition, the market for our solutions is often characterized by rapid technological change and evolving regulatory standards. Our future growth is dependent on the successful development and introduction of new solutions and enhancements. To address these challenges, we will continue to expand our direct and indirect sales channels in domestic and international markets, pursue research and development as well as acquisition opportunities to expand and enhance our offerings, expand our marketing efforts, and drive client adoption through our knowledge transfer professional services offerings. Our success in these areas will depend upon our abilities to execute on our operational plans, interpret and respond to customer and regulatory requirements, and retain key staff.

Sources of Revenues

We derive revenues from subscription and professional services. We typically sell multi-study or single-study subscription arrangements, which grant our customers the right to use our cloud-based solutions. Our subscription revenues are comprised of subscription fees from customers accessing our cloud-based solutions. Professional

services revenue is derived from the provision of professional services that help life sciences companies realize higher value in their clinical development processes.

Subscriptions to our cloud-based solutions are principally provided through multi-study arrangements, which grant customers the right to manage up to a predetermined number of clinical trials for a term generally ranging from one to five years, as well as single-study arrangements that allow customers to use our solutions for an individual study and/or to evaluate our products prior to committing to multi-study arrangements. Many of our clients have migrated from single-study arrangements to multi-study arrangements, which represent the majority of our subscription revenues.

Our professional services provide our clients with reliable, repeatable and cost-effective implementation and training in the use of our cloud-based solutions. We also offer consulting services to advise clients on ways to optimize their clinical development process from trial concept to conclusion. Over the long term, we expect professional services revenues to decline slightly as a

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percentage of total revenues as our clients and partners become more adept at the management and configuration of our technology for their clinical trials as part of our knowledge transfer efforts.

Cost of Revenues

Cost of revenues consists primarily of costs related to delivering, maintaining and supporting our cloud-based solutions and delivering our professional services and support. These costs include salaries, benefits, bonuses and stock-based compensation for our data center and professional services staff. Cost of revenues also includes costs associated with our data center, including networking and related depreciation expense; as well as outside service provider costs, amortization expense and general overhead. We allocate general overhead, such as applicable shared rent and utilities, to cost of revenues based on relative headcount. The costs associated with providing professional services are recognized as such costs are incurred. Over the long term, we believe that cost of revenues as a percentage of total revenues will decrease.

Operating Costs and Expenses

Research and Development. Research and development expenses consist primarily of personnel and related expenses for our research and development staff, including salaries, benefits, bonuses and stock-based compensation, the cost of certain third-party service providers and allocated overhead. We have focused our research and development efforts on expanding the functionality and ease of use of our cloud-based solutions. We expect research and development costs to increase in absolute dollars in the future as we intend to release new features and functionality designed to maximize the efficiency and effectiveness of the clinical development process for our customers. Over the long term, we believe that research and development expenses as a percentage of total revenues will decrease.

Sales and Marketing. Sales and marketing expenses consist primarily of personnel and related expenses for our sales and marketing staff, including salaries, benefits, bonuses and stock-based compensation, commissions, travel costs, and marketing and promotional events, corporate communications, advertising, other brand building and product marketing expenses and allocated overhead. Our sales and marketing expenses have increased in absolute dollars primarily due to our ongoing substantial investments in customer acquisition and other activities to build brand awareness. We expect sales and marketing expenses to continue to increase in absolute dollars. Over the long term, we believe that sales and marketing expenses as a percentage of total revenues will decrease.

General and Administrative. General and administrative expenses consist primarily of personnel and related expenses for executive, legal, quality assurance, finance and human resources departments, including salaries, benefits, bonuses and stock-based compensation, professional fees, insurance premiums, allocated overhead and other corporate expenses. On an ongoing basis, we expect general and administrative expenses to increase modestly in absolute dollars as we continue to add administrative personnel and incur additional professional fees and other expenses resulting from continued investment in our infrastructure to support continued growth. Over the long term, we believe that general and administrative expenses as a percentage of total revenues will decrease.

Interest and Other Expense

Interest and other expense relates primarily to interest expense, including contractual interest expense and amortization of debt discount and issuance costs, on our 1.00% convertible senior notes, or the Notes, issued in August 2013. The annualized effective rate of interest on the Notes is expected to be 6.5% to 6.6% throughout their term.

Income Tax Expense

We are subject to income tax in the United States as well as other tax jurisdictions in which we conduct business. In 2014, we expect that our effective income tax rate will be approximately 38%. We have U.S. federal and state net operating loss carryforwards, or NOLs, available to offset future taxable income, which do not fully expire until 2033 and are subject to limitations under Section 382 of the Internal Revenue Code. Historically, we have also had other tax credits, such as research and development tax credits, available to offset our taxable income. Given the expiration of the federal research and development tax credit at the end of 2013, we have not recognized a related tax benefit in our 2014 results to date, nor will we include such benefit in our 2014 estimated effective income tax rate, unless such tax credit is reinstated by Congress. We expect our overall income tax expense to increase in absolute dollars.

Critical Accounting Policies

Our condensed consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. Our critical accounting policies, including the assumptions and judgments underlying them, require the application of significant judgment in the preparation of our financial statements, and as a result they are subject to a greater degree of uncertainty. In applying these policies, we use our judgment to determine the appropriate assumptions to be used in calculating estimates that affect the reported amounts of assets, liabilities, revenues and expenses. Estimates and assumptions are based on historical experience and on various other factors that are believed to be reasonable under the circumstances. Accordingly, actual results could differ from those estimates. Our critical accounting policies consist of revenue recognition, stock-

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based compensation, goodwill and intangibles, convertible notes and income taxes. Except to the extent updated or described below, our critical accounting policies as of March 31, 2014 are the same as those at December 31, 2013, which are included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013.

Stock-Based Compensation

We follow Accounting Standards Codification, or ASC, 718, Compensation—Stock Compensation, to account for all of our stock-based compensation plans. According to ASC 718, all forms of share-based payments to employees, including employee stock options, nonvested restricted stock awards, or RSAs, performance based restricted stock units, or PBRsUs, and employee stock purchase plan, or ESPP, shares, are treated the same as any other form of compensation by recognizing the related cost in the statement of operations.

Under ASC 718, stock-based compensation expense is measured at the grant date based on the fair value of the award, and the expense is recognized ratably over the award's vesting period. For all share-based awards, we recognize compensation cost under the straight-line method, net of estimated forfeitures. Forfeiture assumptions used in amortizing stock-based compensation expense are based on an analysis of historical data.

We measure the fair value of stock options on the date of grant using the Black-Scholes pricing model which requires the use of several estimates, including:

- the expected volatility of our stock price;
- the expected life of the option;
- risk-free interest rates; and
- expected dividend yield.

For stock options, we use stock price volatility of our publicly-traded stock as a basis for determining the expected volatility. As we do not have sufficient historical exercise data in the period since our stock began being publicly traded to provide a reasonable basis upon which to estimate the expected life, we use the simplified method as permitted under SEC Staff Accounting Bulletin No. 110 for estimating the expected life of options as all of our options qualify as "plain-vanilla" options. The risk-free interest rate is based on the United States Treasury yield curve with a maturity tied to the expected life of the stock option. We have not paid and do not expect to pay dividends on our common stock. Thus, no expected dividend yield is factored into our Black-Scholes model.

The fair value of each nonvested RSA is measured as if the nonvested RSA was vested and issued on the grant date.

The fair value of each PBRsU whose vesting is based upon the achievement of a market price target, or market condition, is based upon the results of a Monte Carlo valuation model, which requires the use of estimates, including:

- the expected volatility of our stock price and, in some cases when the market condition compares the performance of our stock with the NASDAQ Composite Index, the expected volatility of the NASDAQ Composite Index;
- the expected term; and
- risk-free interest rates.

For PBRsUs with market conditions, we determine volatility based upon the closing price of our publicly-traded stock and the closing price of the NASDAQ Composite Index as applicable. The risk-free interest rate is based on the United States Treasury yield curve with a maturity tied to the expected term of the PBRsU. We have not paid and do not expect to pay dividends on our common stock. Thus, no expected dividend yield is factored into our Monte Carlo model.

The fair value of each PBRsU whose vesting is dependent on the satisfaction of a performance condition is measured as if the PBRsU was vested and issued on the grant date, and adjusted each period for expected performance relative to the associated goals. Related compensation expense is recognized only when it is probable that performance will meet or exceed the performance condition's minimum threshold.

The fair value of each ESPP share is estimated using the Black-Scholes pricing model, with similar inputs to those required for the valuation of stock options. We use stock price volatility of our publicly-traded stock as a basis for determining the expected volatility. The expected life of each ESPP share is equivalent to the time between the beginning of the offering period and the end of the related purchase period. The risk-free interest rate is based on the United States Treasury yield curve in effect at the beginning of the offering period with a maturity tied to the expected life of the ESPP share. No expected dividend yield is factored into the Black-Scholes model as we do not expect to

pay dividends on our common stock.

The use of different assumptions in our Black-Scholes or Monte Carlo valuation models would result in different amounts of stock-based compensation expense. Furthermore, if different assumptions are used in future periods, stock-based compensation expense could be materially impacted in the future.

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Results of Operations

We recognize revenues from subscriptions ratably over the terms of these arrangements. As a result, a substantial majority of our subscription revenues in each quarter are generated from arrangements entered into in prior periods. Consequently, an increase or a decrease in new subscription arrangements in a particular quarter may not significantly affect results of operations in that quarter.

Our typical practice is to sell our subscriptions and professional services in a multiple-element arrangement. Under our current accounting policy, our professional services revenues are recognized as delivered for any multiple-element arrangements. Concurrently, as required by ASC 605-25, Revenue Recognition — Multiple-Element Arrangements, we continue to recognize revenues from professional services ratably over the term of those multiple-element arrangements entered into prior to 2011 under the pre-amended ASC 605-25 until such arrangements expire. The portion of professional services revenues recognized under our former accounting policy has gradually declined over the past few years and is now insignificant. Regardless of revenue recognition, we recognize expenses related to our professional services in the period in which the expenses are incurred.

We now expect professional services revenues and related gross margins to be more reflective of the services delivered during each reporting period.

The following table sets forth our consolidated results of operations as a percentage of total revenues for the periods shown:

	Three Months Ended March 31,		
	2014	2013	
Revenues:			
Subscription	83.3	% 80.1	%
Professional services	16.7	% 19.9	%
Total revenues	100.0	% 100.0	%
Cost of revenues:			
Subscription	14.4	% 14.3	%
Professional services	12.7	% 12.8	%
Total cost of revenues	27.1	% 27.1	%
Gross profit	72.9	% 72.9	%
Operating costs and expenses:			
Research and development	23.2	% 18.8	%
Sales and marketing	27.1	% 22.9	%
General and administrative	22.2	% 20.0	%
Total operating costs and expenses	72.5	% 61.7	%
Operating income	0.4	% 11.2	%

Three Months Ended March 31, 2014 Compared with Three Months Ended March 31, 2013

Revenues

	Three Months Ended March 31,		2013	% of Revenues	Change	Amount	% of Revenues	Change	% of Revenues
	2014	Amount							
	Amount	% of Revenues	Amount	% of Revenues	Amount	%	Amount	%	%
	(Amount in thousands)								
Revenues:									
Subscription	\$63,811	83.3	% \$50,652	80.1	% \$13,159	26.0	%		%
Professional services	12,829	16.7	% 12,607	19.9	% 222	1.8	%		%
Total revenues	\$76,640	100.0	% \$63,259	100.0	% \$13,381	21.2	%		%

Total revenues. Total revenues increased \$13.3 million, or 21.2%, to \$76.6 million for the three months ended March 31, 2014 from \$63.3 million for the same period in 2013. The increase in revenues was the result of a \$13.1 million increase in subscription revenues and a \$0.2 million increase in professional services revenues. Our customer base grew to 420 clients in the

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first quarter of 2014, up 17% from the first quarter of 2013. At the start of 2014, we had approximately \$228 million of 2014 full-year subscription backlog. As of March 31, 2014, the total 2014 remaining subscription backlog was approximately \$177 million.

Subscription revenues. Subscription revenues increased \$13.1 million, or 26.0%, to \$63.8 million for the three months ended March 31, 2014 from \$50.7 million for the same period in 2013. The majority of the increase in subscription revenues was derived from increased activity among our existing large and midmarket clients, primarily resulting from renewals and increased adoption of our solutions. We also benefited from strong demand from both new and existing customers who contracted for multiple products under our cloud-based platform, with 52% of our customers using multiple solutions as of March 31, 2014, as compared with 41% as of March 31, 2013. Revenues from new customers accounted for 32% of the total increase in subscription revenues. Subscription revenues increased significantly from both international and domestic customers compared with the prior period. Revenues from customers based in North America and Europe grew 30% and 22%, respectively, while revenues from customers based in Asia grew 10%.

Professional services revenues. Professional services revenues increased \$0.2 million, or 1.8%, to \$12.8 million for the three months ended March 31, 2014 as compared with \$12.6 million for the same period in 2013. The increase in professional services revenues was due to persistent demand from our existing customers who sought to optimize the value of our platform, as well as servicing of new clients.

Cost of Revenues

	Three Months Ended March 31, 2014		2013		Change			
	Amount	% of Revenues	Amount	% of Revenues	Amount	%		
(Amount in thousands)								
Cost of revenues:								
Subscription	\$11,086	14.4	% \$9,025	14.3	% \$2,061	22.8	%	
Professional services	9,713	12.7	% 8,104	12.8	% 1,609	19.9	%	
Total cost of revenues	\$20,799	27.1	% \$17,129	27.1	% \$3,670	21.4	%	

Total cost of revenues. Total cost of revenues increased \$3.7 million, or 21.4%, to \$20.8 million for the three months ended March 31, 2014 from \$17.1 million for the same period in 2013.

Cost of subscription revenues. Cost of subscription revenues increased \$2.1 million, or 22.8%, to \$11.1 million for the three months ended March 31, 2014 from \$9.0 million for the same period in 2013. The increase was largely driven by higher third-party cloud hosting costs, increased consulting costs associated with our help-desk support and higher personnel-related costs resulting from increased headcount to support our business growth.

Cost of professional services revenues. Cost of professional services revenues increased \$1.6 million, or 19.9%, to \$9.7 million for the three months ended March 31, 2014 from \$8.1 million for the same period in 2013. The increase was primarily driven by higher stock-based compensation costs as a result of equity awards granted in current and prior years as well as other growing personnel-related costs resulting from increased headcount to support the demand for our professional services. Higher facilities-related costs associated with the opening of our new major offices around the globe also impacted expenses.

Operating Costs and Expenses

	Three Months Ended March 31, 2014		2013		Change			
	Amount	% of Revenues	Amount	% of Revenues	Amount	%		
(Amount in thousands)								
Operating costs and expenses:								
Research and development	\$17,789	23.2	% \$11,905	18.8	% \$5,884	49.4	%	
Sales and marketing	20,732	27.1	% 14,489	22.9	% 6,243	43.1	%	
General and administrative	17,046	22.2	% 12,644	20.0	% 4,402	34.8	%	

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Total operating costs and expenses	\$55,567	72.5	%	\$39,038	61.7	%	\$16,529	42.3	%
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Total operating costs and expenses. Total operating costs and expenses increased \$16.5 million, or 42.3%, to \$55.5 million for the three months ended March 31, 2014 from \$39.0 million for the same period in 2013. Costs increased in each department with the larger increases in research and development and sales and marketing expenses.

Research and development expenses. Research and development expenses increased \$5.9 million, or 49.4%, to \$17.8 million for the three months ended March 31, 2014 from \$11.9 million for the same period in 2013. The increase was primarily due to an increase in personnel-related costs of \$4.5 million, which was attributable to significant increases in staffing levels in order to accelerate the enhancement and broadening of our product offerings, with average headcount approximately 25% higher than prior period. Higher personnel-related costs were also driven by increased payroll tax expense associated with the vesting of RSAs in the current period, as compared with none in the prior period. Research and development expenses were also impacted by higher facilities-related costs associated with the opening of our new major offices around the globe. We believe our ongoing investments in research and development fuel the innovation needed to support our long-term growth initiatives.

Sales and marketing expenses. Sales and marketing expenses increased \$6.2 million, or 43.1%, to \$20.7 million for the three months ended March 31, 2014 from \$14.5 million for the same period in 2013. The increase was primarily due to higher personnel-related costs of \$4.1 million, driven in particular by higher stock-based compensation costs of \$1.1 million predominantly related to an increase in expected performance of our long-term PBRsUs, and increased sales commission expense as a result of higher revenues versus a year ago. In addition, we continued to increase our staffing levels in association with the expansion of the reach and capability of our global sales organization in support of our overall growth initiatives, with an average headcount approximately 19% higher than in prior year. Sales and marketing expenses were also impacted by higher facilities-related costs associated with the opening of our new major offices around the globe. In addition, expenses were affected by certain one-time costs related to commissions and marketing fees during the quarter.

General and administrative expenses. General and administrative expenses increased \$4.4 million, or 34.8%, to \$17.0 million for the three months ended March 31, 2014 from \$12.6 million for the same period in 2013. The increase was principally due to higher personnel-related costs, which were largely attributable to higher stock-based compensation costs of \$2.3 million primarily related to an increase in expected performance of our long-term PBRsUs. Higher personnel-related costs were also driven by increased payroll tax expense associated with the vesting of RSAs in the current period, as compared with none in the prior period. Higher facilities-related costs associated with the opening of our new major offices around the globe and increased professional fees also impacted expenses.

Income Tax Expense

Income tax for the three months ended March 31, 2014 was a tax benefit of \$1.3 million, compared to a tax expense of \$1.6 million for the same period in 2013, resulting from a pretax book loss for the three months ended March 31, 2014 versus pretax book income a year ago. The effective tax rate for the first quarter of 2014 was 41% as compared with 22% for the same period last year. The lower effective tax rate in 2013 was primarily due to the availability of a tax benefit associated with the federal research and development tax credit, including a one-time catch-up tax benefit of \$1.2 million associated with the 2012 tax year. Such tax credit expired at the end of 2013; therefore no related tax benefit was recognized in the first quarter of 2014.

Liquidity and Capital Resources

Our principal sources of liquidity were cash, cash equivalents and marketable securities of \$403.5 million at March 31, 2014 and \$436.3 million at December 31, 2013. Cash and cash equivalents increased \$3.1 million during the first quarter of 2014 primarily impacted by net sales of marketable securities, partially offset by our annual bonus payments and acquisition of treasury stock in connection with the vesting of RSAs and PBRsUs. We manage our cash equivalents and marketable securities as a single investment portfolio that is intended to be available to meet our current cash requirements. Cash equivalents consist principally of investment in money market funds. Marketable securities, which we classify as available-for-sale securities, primarily consist of high quality commercial paper, corporate bonds, and U.S. government debt obligations. Marketable securities with remaining effective maturities of twelve months or less from the balance sheet date are classified as short-term; otherwise, they are classified as long-term on the consolidated balance sheet.

In August 2013, we issued \$287.5 million of 1.00% convertible senior notes which will mature on August 1, 2018 unless earlier repurchased or converted. Upon conversion, we will deliver to the holders of the Notes either cash, shares of our common stock, or a combination thereof, at our election. If converted, we intend to settle the principal amount of the Notes in cash and any excess conversion value beyond the principal amount in shares of our common stock, cash, or a combination thereof. As of March 31, 2014, the Notes are not convertible and are classified as long term liabilities in our condensed consolidated financial statements. For further information, see Note 7, "Debt," to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

We believe that our cash flows from operations, existing cash and cash equivalents and highly liquid marketable securities will be sufficient to satisfy the anticipated cash requirements associated with our existing operations for the foreseeable future. For the remainder of 2014, we expect to make approximately \$11 to \$12 million in capital expenditures, primarily related to leasehold improvements in our new corporate headquarters in New York City and our new office in Tokyo, Japan. We also plan to enhance our infrastructure and increase the capacity in our Houston data center, as well as to enhance our computer equipment across

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various corporate functions. We expect to acquire our capital equipment through purchases as opposed to capital lease arrangements.

Cash Flows

Cash Flows (Used In) Provided By Operating Activities

Cash flows used in operating activities during the three months ended March 31, 2014 were \$6.3 million, which consisted primarily of net loss of \$1.8 million, non-cash adjustments, including stock-based compensation of \$9.7 million, amortization of debt discount of \$2.7 million, depreciation and amortization of \$2.5 million, amortization of discounts or premiums on marketable securities of \$1.4 million, and deferred income taxes of \$1.6 million, as well as changes in working capital. The change in working capital includes increases in accounts receivable of \$25.6 million and deferred revenue of \$10.7 million, and a decrease in accrued payroll and other compensation of \$9.3 million. The fluctuation in accounts receivable and deferred revenue was primarily due to the impact of higher billing activities and the timing of cash collections and revenue recognition during the period. The decrease in accrued payroll and other compensation was related to the payment of annual bonuses.

Cash flows provided by operating activities during the three months ended March 31, 2013 were \$2.9 million, which consisted primarily of net income of \$5.7 million, non-cash adjustments, including stock-based compensation of \$5.2 million, depreciation and amortization of \$1.9 million and deferred income taxes of \$0.7 million, as well as changes in working capital. The change in working capital includes a decline in accrued payroll and other compensation of \$6.6 million and an increase in accounts receivable of \$4.2 million. The fluctuation in accounts receivable was primarily due to higher billing activities, partially offset by our strong customer collections. The decrease in accrued payroll and other compensation was related to payment of annual bonuses.

Cash Flows Provided by Investing Activities

Cash flows provided by investing activities during the three months ended March 31, 2014 were \$27.4 million, which was related to \$80.7 million in proceeds from sale and maturity of marketable securities, partially offset by \$46.2 million in purchases of marketable securities and \$7.0 million in capital expenditures.

Cash flows provided by investing activities during the three months ended March 31, 2013 were \$0.1 million, which was related to \$30.0 million in proceeds from sale and maturity of marketable securities and decrease in restricted cash of \$0.4 million, partially offset by \$27.4 million in purchases of marketable securities and \$2.9 million in purchases of furniture, fixtures and equipment.

Cash Flows (Used In) Provided by Financing Activities

Cash flows used in financing activities during the three months ended March 31, 2014 were \$18.1 million, which was primarily due to \$19.8 million relating to the acquisition of treasury stock in connection with the vesting of RSAs and PBRsUs and \$0.7 million in acquisition-related earn-out payments, partially offset by \$1.3 million in proceeds from ESPP and \$1.1 million in proceeds from stock option exercises.

Cash flows provided by financing activities during the three months ended March 31, 2013 were \$1.7 million, which was primarily due to \$1.7 million in proceeds from stock option exercises and \$0.6 million of excess tax benefit realized from equity awards, partially offset by \$0.4 million in acquisition-related earn-out payments and \$0.1 million relating to the acquisition of treasury stock in connection with the vesting of RSAs.

Contractual Obligations, Commitments and Contingencies

There was no material change in our contractual obligations during the first three months of 2014.

Legal Matters

On March 4, 2011, DataTrak International, Inc., or DataTrak, filed a complaint for alleged patent infringement against us in *DataTrak International v. Medidata Solutions, C.A. No. 1:11-cv-00458* in the U.S. District Court for the Northern District of Ohio. The complaint asserts infringement of U.S. Patent No. 7,464,087, or the '087 Patent, which claims a method and system for unifying data from a variety of sources. The complaint asserts that we infringe upon the patent owned without providing any details concerning the alleged infringement, and it seeks unspecified damages and injunctive relief. On October 28, 2011, we filed an application for ex parte reexamination of the '087 Patent with the U.S. Patent and Trademark Office, or PTO. On December 16, 2011, the PTO issued a non-final rejection of the validity of all claims of the '087 Patent. On the same date, the district court granted our motion to stay the case pending reexamination of the patent-in-suit. On April 6, 2012, the PTO issued its final office action rejecting all asserted

claims of the '087 Patent. In July 2012, DataTrak filed a notice of appeal to the Board of Patent Appeals and Interferences, or BPAI. The BPAI rendered a decision on March 4, 2014, affirming the rejection of some claims of the '087 Patent and reversing the rejection of other claims. The PTO has not yet issued a notice of intent to issue ex parte reexamination certificate, which is expected to confirm patentability of the remaining claims and will close the current reexamination proceeding. We believe that we have valid defenses to the lawsuit and intend to defend it vigorously in the event the reexamination

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certificate issues and the stay of the case is lifted. The probability of a favorable or unfavorable outcome to us should the lawsuit resume is not known nor can the liability that could potentially result from a negative outcome be reasonably estimated. As a result, we have not recorded an accrual associated with this litigation. Additionally, given the early stage of the proceedings, the complexities of the facts in dispute and the multiple claims involved, we are unable to estimate a range of loss related to this litigation.

Effects of Recently Issued Accounting Standards

In July 2013, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2013-11, Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. This ASU amends ASC 740, Income Taxes, to require that an unrecognized tax benefit be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward; to the extent that a net operating loss carry forward, a similar tax loss, or a tax credit carryforward does not exist at the reporting date, the unrecognized tax benefit should be presented in the financial statements as a liability and not combined with deferred tax assets. ASU No. 2013-11 is effective for interim and annual reporting periods beginning after December 15, 2013. We adopted ASU No. 2013-11 on January 1, 2014, and the adoption did not have a material impact on our consolidated financial statements.

Dividends

We currently expect to retain any future earnings for use in the operation and expansion of our business and do not anticipate paying any cash dividends on our common stock.

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities of financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. Other than our operating leases for office space and computer equipment, we do not engage in off-balance sheet financing arrangements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Sensitivity

We had unrestricted cash and cash equivalents totaling \$25.4 million at March 31, 2014. Our cash equivalents are invested principally in money market funds. We also had investments in marketable securities, which we classify as available-for-sale securities, totaling \$378.1 million at March 31, 2014. Substantially all of our marketable securities are fixed income securities, which primarily consist of high quality commercial paper, corporate bonds, and U.S. government debt obligations. These unrestricted cash and cash equivalents and marketable securities are held for working capital purposes. We manage our cash equivalents and marketable securities as a single investment portfolio that is intended to be available to meet our current cash requirements. We do not enter into investments for trading or speculative purposes. Due to the high credit ratings of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates.

Market Risk

In August 2013, we issued \$287.5 million of 1.00% convertible senior notes which will mature on August 1, 2018 unless earlier repurchased or converted. Upon conversion we may deliver to the holders of the Notes either cash, shares of our common stock, or a combination thereof, at our election. If converted, we intend to settle the principal amount of the Notes in cash and any excess conversion value beyond the principal amount in shares of our common stock, cash, or a combination thereof. The Notes are not convertible as of March 31, 2014 but may become convertible in the future as a result of changes in the trading price of our common stock or of the Notes, or under other circumstances as defined in the indenture. Due to their non-convertible status as of March 31, 2014, the Notes are classified as long-term liabilities in our consolidated financial statements.

The Notes have a fixed annual interest rate of 1.00% and we therefore do not have economic interest rate exposure related to the Notes. However, the value of the Notes is exposed to interest rate risk. In general, the market value of our fixed interest rate Notes will increase as interest rates fall and decrease as interest rates rise. The Notes may also be affected by the volatility of our common stock price. As of March 31, 2014, the estimated fair value of the Notes was approximately \$345.7 million.

Exchange Rate Sensitivity

We have two separate exposures to currency fluctuation risk: subsidiaries outside the United States that use a foreign currency as their functional currency that are translated into U.S. dollars for consolidation and non-U.S. dollar-invoiced revenues.

Changes in foreign exchange rates for our subsidiaries that use a foreign currency as their functional currency are translated into U.S. dollars and result in cumulative translation adjustments, which are included in accumulated other comprehensive loss. We

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have translation exposure to various foreign currencies, including the Euro, British pound sterling and Japanese yen. The potential translation loss resulting from a hypothetical 10% adverse change in quoted foreign currency exchange rates amounts to an estimated \$1.7 million for the three months ended March 31, 2014.

We generally invoice our customers in U.S. dollars. However, we invoice a portion of customers in foreign currencies, the majority of which is denominated in the Euro, British pound sterling, Australian dollar, and Canadian dollar. As such, the fluctuations in such currencies could impact our operating results.

Impact of Inflation

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we might not be able to offset these higher costs fully through price increases. Our inability or failure to do so could harm our business, operating results and financial condition.

Fair Value of Financial Instruments

ASC 825-10, Financial Instruments, requires disclosure about fair value of financial instruments. The carrying amounts of our financial instruments, which consist of cash and cash equivalents, receivables, accounts payable and accrued liabilities, approximate fair value because of the short maturity of these instruments. Fair values of marketable securities are based on unadjusted quoted market prices or pricing models using current market data that are observable either directly or indirectly. The disclosure of fair value of convertible senior notes is based on a recent quoted bid price. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of March 31, 2014, an evaluation was performed with the participation of our Disclosure Committee and our management, including the Chief Executive Officer, or CEO, and the Chief Financial Officer, or CFO, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Disclosure controls and procedures are controls and procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures are also designed to ensure that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure. Based upon such evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were effective as of March 31, 2014.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting, during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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PART II - OTHER INFORMATION

Item 1. Legal Proceedings

See Note 12, "Commitments and Contingencies – Legal Matters," to the condensed consolidated financial statements included in this Quarterly Report on Form 10-Q for a description of current legal proceedings.

Item 1A. Risk Factors

We operate in a rapidly changing environment that involves a number of risks, some of which are beyond our control. The risks described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 are those which we believe are the material risks we face. There have been no material changes in our risk factors since our Annual Report on Form 10-K for the fiscal year ended December 31, 2013. Any of those disclosed risk factors or additional risks and uncertainties not presently known to us, or that we currently deem immaterial, could have a material adverse effect on our business, financial condition and results of operations.

Item 2. Unregistered Sale of Equity Securities and Use of Proceeds

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

From time to time, we grant RSAs and PBRsUs to our employees pursuant to the terms of our Amended 2009 Long-Term Incentive Plan, or 2009 Plan. Under the provisions of our 2009 Plan, the plan participants are allowed to cover their income tax withholding obligation through net shares upon the vesting of their restricted shares or units. On the date of vesting of restricted shares or units, we determine the number of vested shares to be withheld based on their fair value at closing price of our common stock on the vesting date, in order to equal the amount of the plan participant's income tax withholding obligation.

A summary of our repurchases of shares of our common stock for the three months ended March 31, 2014 is as follows:

	Total Number of Shares Purchased(1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet be Purchased under the Plans or Programs
January 1 – January 31, 2014	—	\$—	—	—
February 1 – February 28, 2014	164,738	59.67	—	—
March 1 – March 31, 2014	—	—	—	—
Total	164,738	\$59.67	—	—

Represents the number of shares acquired as payment by employees of applicable statutory minimum withholding (1) taxes owed upon vesting of restricted stock awards and performance-based restricted stock units granted under our 2009 Plan.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

The information required by this Item 6 is set forth on the exhibit index that follows the signature page of this report.

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Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

MEDIDATA SOLUTIONS, INC.

By: /s/ CORY DOUGLAS

Cory Douglas

Chief Financial Officer (Principal Financial and Chief
Accounting Officer)

Date: April 29, 2014

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EXHIBIT INDEX

Exhibit No.	Description
31.1*	Certification of CEO pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Exchange Act.
31.2*	Certification of CFO pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Exchange Act.
32.1**	Certification of CEO pursuant to Rules 13a-14(b) or 15d-14(b) under the Exchange Act and 18 U.S.C. 1350.
32.2**	Certification of CFO pursuant to Rules 13a-14(b) or 15d-14(b) under the Exchange Act and 18 U.S.C. 1350.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** Furnished herewith.