

Medidata Solutions, Inc.  
Form 10-Q  
August 02, 2013  
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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 June 30, 2013  
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.)

79 Fifth Avenue, 8th Floor  
New York, New York 10003  
(Address of principal executive offices) (Zip Code)  
(212) 918-1800  
(Registrant’s telephone number, including area code)

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  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) 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 July 26, 2013, the registrant had 26,676,853 shares of common stock outstanding.

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## PART I FINANCIAL INFORMATION

## Item 1. Financial Statements (Unaudited)

## MEDIDATA SOLUTIONS, INC.

## CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

(Amounts in thousands, except per share data)

	June 30, 2013	December 31, 2012
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$38,560	\$32,683
Marketable securities	101,820	89,871
Accounts receivable, net of allowance for doubtful accounts of \$1,098 and \$747, respectively	41,639	42,359
Prepaid commission expense	3,230	2,281
Prepaid expenses and other current assets	9,203	8,042
Deferred income taxes	3,558	7,465
Total current assets	198,010	182,701
Restricted cash	—	388
Furniture, fixtures and equipment, net	14,017	10,474
Goodwill	15,087	15,382
Intangible assets, net	1,099	1,708
Deferred income taxes – long-term	10,760	11,055
Other assets	2,347	2,923
Total assets	\$241,320	\$224,631
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$1,781	\$2,998
Accrued payroll and other compensation	12,034	14,140
Accrued expenses and other	9,329	6,674
Deferred revenue	50,431	50,348
Capital lease obligations	56	55
Total current liabilities	73,631	74,215
Noncurrent liabilities:		
Deferred revenue, less current portion	3,452	4,323
Deferred tax liabilities	280	624
Capital lease obligations, less current portion	72	100
Other long-term liabilities	3,008	3,278
Total noncurrent liabilities	6,812	8,325
Total liabilities	80,443	82,540
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, 27,235 and 26,405 shares issued; 26,658 and 26,039 shares outstanding, respectively	272	264
Additional paid-in capital	180,106	160,637
Treasury stock, 577 and 366 shares, respectively	(16,088)	(5,626)
Accumulated other comprehensive loss	(1,098)	(63)
Accumulated deficit	(2,315)	(13,121)

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Total stockholders' equity	160,877	142,091
Total liabilities and stockholders' equity	\$241,320	\$224,631

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)

(Amounts in thousands, except per share data)

	Three Months Ended June 30, 2013	2012	Six Months Ended June 30, 2013	2012
Revenues				
Application services	\$56,346	\$41,541	\$106,998	\$79,937
Professional services	11,723	11,972	24,330	23,935
Total revenues	68,069	53,513	131,328	103,872
Cost of revenues (1)(2)				
Application services	8,949	8,213	17,974	15,697
Professional services	7,971	7,562	16,075	14,693
Total cost of revenues	16,920	15,775	34,049	30,390
Gross profit	51,149	37,738	97,279	73,482
Operating costs and expenses:				
Research and development (1)	12,105	10,628	24,010	20,583
Sales and marketing (1)(2)	16,253	12,263	30,742	22,646
General and administrative (1)	13,955	9,159	26,599	18,449
Total operating costs and expenses	42,313	32,050	81,351	61,678
Operating income	8,836	5,688	15,928	11,804
Interest and other income (expense):				
Interest expense	(27	) (28	) (45	) (49
Interest income	59	60	135	131
Other (expense) income, net	(10	) (10	) 144	(10
Total interest and other income, net	22	22	234	72
Income before income taxes	8,858	5,710	16,162	11,876
Provision for income taxes	3,752	2,106	5,356	4,502
Net income	\$5,106	\$3,604	\$10,806	\$7,374
Earnings per share:				
Basic	\$0.20	\$0.15	\$0.43	\$0.30
Diluted	\$0.19	\$0.14	\$0.41	\$0.29
Weighted average common shares outstanding:				
Basic	25,425	24,406	25,273	24,212
Diluted	26,744	25,277	26,528	25,082
(1) Stock-based compensation expense included in cost of revenues and operating costs and expenses is as follows:				
Cost of revenues	\$838	\$514	\$1,325	\$809
Research and development	627	307	1,085	498
Sales and marketing	1,722	803	2,944	1,367
General and administrative	3,937	1,534	6,975	2,638
Total stock-based compensation	\$7,124	\$3,158	\$12,329	\$5,312
(2) Amortization of intangible assets included in cost of revenues and operating costs and expenses is as follows:				
Cost of revenues	\$101	\$319	\$382	\$637
Sales and marketing	33	129	146	258
Total amortization of intangible assets	\$134	\$448	\$528	\$895

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)

(Amounts in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Net income	\$5,106	\$3,604	\$10,806	\$7,374
Other comprehensive (loss) income:				
Foreign currency translation adjustments	(29	) (195	) (1,015	) 60
Unrealized loss on marketable securities	(21	) (12	) (33	) (1
Other comprehensive (loss) income:	(50	) (207	) (1,048	) 59
Income tax benefit related to unrealized loss on marketable securities	8	4	13	—
Other comprehensive (loss) income, net of tax	(42	) (203	) (1,035	) 59
Comprehensive income, net of tax	\$5,064	\$3,401	\$9,771	\$7,433

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)

(Amounts in thousands)

	Six Months Ended June 30,	
	2013	2012
Cash flows from operating activities:		
Net income	\$10,806	\$7,374
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,324	4,028
Stock-based compensation	12,329	5,312
Amortization of discounts or premiums on marketable securities	1,001	601
Deferred income taxes	3,883	3,328
Amortization of debt issuance costs	30	30
Excess tax benefit associated with equity awards	(997)	(677)
Contingent consideration adjustment	120	160
Provision for doubtful accounts	657	(36)
Changes in operating assets and liabilities:		
Accounts receivable	3,274	(10,631)
Prepaid commission expense	(830)	(245)
Prepaid expenses and other current assets	1,153	(2,670)
Other assets	(78)	(1,406)
Accounts payable	(900)	(1,238)
Accrued payroll and other compensation	(2,338)	(708)
Accrued expenses and other	1,183	656
Deferred revenue	(4,140)	4,570
Other long-term liabilities	591	(225)
Net cash provided by operating activities	29,068	8,223
Cash flows from investing activities:		
Purchases of furniture, fixtures and equipment	(6,761)	(3,245)
Purchases of available-for-sale securities	(78,255)	(36,323)
Proceeds from sale of available-for-sale securities	65,272	43,007
Decrease in restricted cash	388	—
Net cash (used in) provided by investing activities	(19,356)	3,439
Cash flows from financing activities:		
Proceeds from exercise of stock options	6,150	4,636
Excess tax benefit associated with equity awards	997	677
Payment of acquisition-related earn-out	(380)	(251)
Repayment of obligations under capital leases	(27)	(85)
Repayment of notes payable	(38)	—
Acquisition of treasury stock	(10,461)	(3,128)
Net cash (used in) provided by financing activities	(3,759)	1,849
Net increase in cash and cash equivalents	5,953	13,511
Effect of exchange rate changes on cash and cash equivalents	(76)	(2)
Cash and cash equivalents – Beginning of period	32,683	45,214
Cash and cash equivalents – End of period	\$38,560	\$58,723
Supplemental disclosures of cash flow information:		
Cash paid during the period for:		
Interest	\$15	\$23
Income taxes	\$984	\$2,099



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Noncash activities:

Furniture, fixtures and equipment acquired through capital lease obligations	\$—	\$26
Furniture, fixtures, and equipment acquired but not yet paid for at period-end	\$1,511	\$110
Issuance of notes payable in connection with acquisition-related earn-out payments	\$341	\$171

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, transforming clinical development through its advanced applications and intelligent data analytics. The Company's solutions allow its customers to increase the value of their clinical development 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.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Except to the extent updated or described below, the Company's significant accounting policies as of June 30, 2013 are the same as those at December 31, 2012, which are included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 8, 2013.

Basis of Presentation — The accompanying interim condensed consolidated balance sheets as of June 30, 2013 and December 31, 2012, the condensed consolidated statements of operations for the three and six months ended June 30, 2013 and 2012, the condensed consolidated statements of comprehensive income for the three and six months ended June 30, 2013 and 2012, and the condensed consolidated statements of cash flows for the six months ended June 30, 2013 and 2012 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, 2012 included in the Company's Annual Report on Form 10-K filed with the SEC on March 8, 2013.

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 June 30, 2013, results of its operations for the three and six months ended June 30, 2013 and 2012, comprehensive income for the three and six months ended June 30, 2013 and 2012, and cash flows for the six months ended June 30, 2013 and 2012. The results of operations for the three and six months ended June 30, 2013 are not necessarily indicative of the results that may be expected for the year ending December 31, 2013.

On the condensed consolidated statements of cash flows, an immaterial reclassification of a prior period amount has been made to conform to the current presentation.

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 a group of peer companies as a basis for determining the expected volatility, together with the closing prices of the Company's publicly-traded stock. Management believes this is the best estimate of the expected volatility over the weighted-average expected life of its option grants. The Company has increased and will continue to increase the weight of its own stock price volatility within the weighted average over time as sufficient trading history is established. 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 allowed under Securities and Exchange Commission 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.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

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 based upon the results of a Monte Carlo valuation model 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.

**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.

In addition, 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 June 30, 2013 and December 31, 2012, unbilled accounts receivable of \$7.0 million and \$3.1 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 one single operating unit. The Company recorded revenues in the following geographic areas for the three and six months ended June 30, 2013 and 2012 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Revenues:				
United States of America	\$48,706	\$34,955	\$93,560	\$67,857
Japan	8,071	6,954	15,904	14,271
Switzerland	3,048	2,932	5,969	5,824
United Kingdom	2,867	3,814	5,733	5,954

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Other	5,377	4,858	10,162	9,966
Total	\$68,069	\$53,513	\$131,328	\$103,872

Revenues by geographic area are presented based upon the country in which revenues were generated. No individual country other than the United States, Japan, the United Kingdom 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, CONTINUED (Unaudited)

The following table summarizes long-term assets by geographic area as of June 30, 2013 and December 31, 2012 (in thousands):

	June 30, 2013	December 31, 2012
Long-term assets:		
United States of America	\$33,745	\$32,102
United Kingdom	9,274	9,454
Japan	291	374
Total	\$43,310	\$41,930

Recently Issued Accounting Pronouncements — In June 2011, the FASB issued ASU No. 2011-05, Presentation of Comprehensive Income, which removes the presentation options contained in ASC 220, Comprehensive Income, and requires entities to report components of comprehensive income in either a continuous statement of comprehensive income or two separate but consecutive statements. Under the two-statement approach, the first statement would include components of net income, which is consistent with the format of statement of operations used today, and the second statement would include components of other comprehensive income. In December 2011, the FASB issued ASU No. 2011-12, Deferral of the Effective Date for Amendments to Presentation of Reclassification of Items Out of Accumulated Other Comprehensive Income in ASU 2011-05, to defer indefinitely the effective date of the specific requirement to present items that are reclassified out of accumulated other comprehensive income to net income alongside their respective components of net income and other comprehensive income. All other provisions of ASU No. 2011-05 are effective for interim and annual periods beginning after December 15, 2011, and must be applied retrospectively for all periods presented in the financial statements. The Company adopted the applicable provisions of ASU No. 2011-05 on January 1, 2012. The adoption did not have a material impact on its consolidated financial statements other than a change in their presentation. In February 2013, the FASB issued ASU No. 2013-02, Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income, which supersedes and replaces the presentation requirements for reclassifications out of accumulated other comprehensive income in ASU No. 2011-05 and ASU No. 2011-12. ASU No. 2013-02 is effective for reporting periods beginning after December 15, 2012. The Company adopted ASU No. 2013-02 on January 1, 2013, and the adoption did not have a material impact on its consolidated financial statements.

**3. 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 June 30, 2013 and December 31, 2012 (in thousands):

	As of June 30, 2013			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper and corporate bonds	\$76,875	\$5	\$(37)	) \$76,843
U.S. Treasury and U.S. government agency debt securities	24,975	2	—	24,977
Total	\$101,850	\$7	\$(37)	) \$101,820

As of December 31, 2012

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	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper and corporate bonds	\$63,682	\$4	\$(11	) \$63,675
U.S. Treasury and U.S. government agency debt securities	26,186	10	—	26,196
Total	\$89,868	\$14	\$(11	) \$89,871

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

Contractual maturities of the Company's marketable securities as of June 30, 2013 and December 31, 2012 are summarized as follows (in thousands):

	As of June 30, 2013		As of December 31, 2012	
	Cost	Estimated Fair Value	Cost	Estimated Fair Value
Due in one year or less	\$101,850	\$101,820	\$89,868	\$89,871

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 June 30, 2013 and December 31, 2012 (in thousands):

	In Loss Position for Less than 12 Months			
	As of June 30, 2013		As of December 31, 2012	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Commercial paper and corporate bonds	\$51,987	\$(37 )	\$42,167	\$(11 )

None of the Company's marketable securities has been in a continuous unrealized loss position for more than twelve months as of June 30, 2013 and December 31, 2012.

At June 30, 2013, the Company had an insignificant amount of gross unrealized losses primarily due to a decrease in the fair value of certain corporate bond securities. 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 maturity, the Company has determined that the gross unrealized losses on such investments at June 30, 2013 are temporary in nature. Accordingly, the Company did not consider that its investments in marketable securities were other-than-temporarily impaired as of June 30, 2013.

During the three and six months ended June 30, 2013 and 2012, the Company did not record any net realized gains or losses from the sale of marketable securities.

#### 4. 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.

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

- 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;





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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

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 and 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 June 30, 2013 and December 31, 2012 are summarized as follows (in thousands):

	As of June 30, 2013				As of December 31, 2012			
	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	\$28,326	\$—	\$—	\$28,326	\$17,815	\$—	\$—	\$17,815
Corporate bonds	—	801	—	801	—	3,313	—	3,313
Total cash equivalents	28,326	801	—	29,127	17,815	3,313	—	21,128
Commercial paper and corporate bonds	—	76,843	—	76,843	—	63,675	—	63,675
U.S. Treasury and U.S. government agency debt securities	—	24,977	—	24,977	—	26,196	—	26,196
Total marketable securities	—	101,820	—	101,820	—	89,871	—	89,871
Total financial assets	\$28,326	\$102,621	\$—	\$130,947	\$17,815	\$93,184	—	\$110,999
Liabilities:								
Contingent consideration	\$—	\$—	\$921	\$921	\$—	\$—	\$801	\$801

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 with 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 six months ended June 30, 2013 and 2012, there were no transfers of financial assets between Level 1 and Level 2.

The contingent consideration, associated with earn-out payments related to the acquisition of Clinical Force Limited ("Clinical Force") in July 2011, is classified as Level 3. The fair value of the contingent consideration was estimated by applying the income approach. That measure is based on significant inputs that are not observable in the market. The significant inputs in the Level 3 measurement not supported by market activity included the Company's probability assessments of expected future cash flows associated with its related acquisition during the earn-out payments measurement period, appropriately discounted considering the uncertainties associated with the obligation, and calculated in accordance with the terms of the purchase agreement. Significant assumptions include a discount rate of 11%, which is derived from the Company's estimated weighted average cost of capital of 16% net of a 5% risk adjustment. Changes in the Company's expectations related to the achievement of the performance-based criteria

specified in the purchase agreement may affect these assumptions, resulting in an increase or decrease in the fair value of the contingent consideration liability.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

The following table provides a summary of changes in fair value of the Company's Level 3 financial liabilities during the first six months of 2013 (in thousands):

	Contingent Consideration
Balance at January 1, 2013 (included in other long-term liabilities)	\$801
Change in fair value	120
Balance at June 30, 2013 (included in accrued expenses and other)	\$921

For both the three and six months ended June 30, 2013, the Company recorded adjustments of \$0.1 million to the contingent consideration obligation as a result of the recurring measurement of its fair value at each reporting period using the income approach. The fair value adjustments were recorded in general and administrative expenses in the Company's consolidated financial statements.

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 June 30, 2013.

## 5. GOODWILL AND INTANGIBLE ASSETS

The change in the carrying amount of goodwill during the first six months of 2013 is as follows (in thousands):

Balance as of January 1, 2013	\$15,382	
Foreign currency translation adjustments	(295	)
Balance as of June 30, 2013	\$15,087	

Intangible assets are summarized as follows (in thousands):

	As of June 30, 2013			As of December 31, 2012		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired technology	\$3,995	\$(3,198 )	\$797	\$4,094	\$(2,935 )	\$1,159
Database	1,900	(1,900 )	—	1,900	(1,821 )	79
Customer relationships	2,037	(1,735 )	302	2,064	(1,594 )	470
Total	\$7,932	\$(6,833 )	\$1,099	\$8,058	\$(6,350 )	\$1,708

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

Remainder of year ending December 31, 2013	\$265
Years ending December 31,	
2014	508
2015	265
2016	44
2017	17
2018	—

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

## 6. STOCK-BASED COMPENSATION

The Company accounts for stock-based compensation in accordance with ASC 718, Compensation — Stock Compensation. For the three and six months ended June 30, 2013 and 2012, the components of stock-based compensation expense were summarized in the following table (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Stock options	\$1,056	\$999	\$2,018	\$1,945
Restricted stock awards	5,401	2,159	8,583	3,367
Performance based restricted stock units	667	—	1,728	—
Total stock-based compensation	\$7,124	\$3,158	\$12,329	\$5,312

In April 2013, the Company amended and restated the 2009 Long-Term Incentive Plan (the "2009 Plan") to increase the number of shares of common stock that the Company may issue under the 2009 Plan by 1.5 million shares, to a total of 5.5 million shares.

## 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 June 30,		Six Months Ended June 30,		
	2013	2012	2013	2012	
Expected volatility	42	% 46	% 42	% 46	%
Expected life	6 years	6 years	6 years	6 years	
Risk-free interest rate	1.03	% 0.95	% 1.03	% 0.96	%
Dividend yield	—	—	—	—	

The following table summarizes the activity under the stock option plans as of June 30, 2013, and changes during the six 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, 2013	1,789	\$19.39		
Granted	107	67.69		
Exercised	(399)	) 15.42		
Forfeited	(42)	) 23.26		
Expired	(1)	) 24.28		
Outstanding at June 30, 2013	1,454	\$23.92	7.31	\$77,864
Exercisable at June 30, 2013	781	\$17.04	6.12	\$47,153
Vested and expected to vest at June 30, 2013	1,419	\$23.64	7.27	\$76,340

The weighted-average grant-date fair value of stock options granted during the three months ended June 30, 2013 and 2012 was \$28.06 and \$12.41, respectively. The weighted-average grant-date fair value of stock options granted during the six months ended June 30, 2013 and 2012 was \$28.06 and \$12.27, respectively. The total intrinsic value of stock options exercised during the three months ended June 30, 2013 and 2012 was \$14.0 million and \$3.8 million, respectively. The total intrinsic value of stock options exercised during the six months ended June 30, 2013 and 2012 was \$18.3 million and \$9.5 million, respectively. As of June 30, 2013, there was a total of \$9.3 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 2.94 years. The total fair value of stock options vested during the three months ended June 30, 2013 and



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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

2012 was \$1.0 million and \$0.9 million, respectively. The total fair value of stock options vested during the six months ended June 30, 2013 and 2012 was \$2.0 million and \$1.8 million, respectively.

**Restricted Stock Awards**

The following table summarizes the status of the Company's nonvested RSAs as of June 30, 2013, and changes during the six months then ended (in thousands, except per share data):

	Number of Shares	Weighted- Average Grant-Date Fair Value
Nonvested at January 1, 2013	973	\$23.08
Granted	431	50.33
Vested	(355)	) 21.14
Forfeited	(65)	) 24.32
Nonvested at June 30, 2013	984	\$35.64

As of June 30, 2013, there was a total of \$30.0 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 2.58 years. The total fair value of RSAs vested during the three months ended June 30, 2013 and 2012 was \$25.2 million and \$8.2 million, respectively. The total fair value of RSAs vested during the six months ended June 30, 2013 and 2012 was \$25.5 million and \$8.3 million, respectively.

**Performance Based Restricted Stock Units**

In February 2013, the Company began granting PBRsUs to certain employees including executives. These PBRsUs are earned upon the achievement of certain targets over a specified performance period. Each PBRsU represents a contingent right to receive one share of the Company's common stock and its fair value is based on the closing price of the Company's stock on the date of grant and adjusted for expected performance. In the case of units which vest based in whole or in part upon achievement of the Company's stock price targets, a Monte Carlo valuation model is utilized to determine the probability of satisfying the market condition. The number of PBRsUs ultimately earned can range from zero to a specified multiple of the original award, based upon the level of performance achieved during the associated performance period in relation to the predetermined performance goals. At each reporting period, management estimates the probable number of PBRsUs that will be earned, until the final achievement is determined at the close of the respective performance periods. The resulting compensation cost is amortized net of expected forfeitures over the associated vesting period.

Of the original target number of PBRsUs granted during the six months ended June 30, 2013, which assumes performance at 100% of targeted levels, (1) 113,538 PBRsUs ("Revenue PBRsUs") have performance conditions based on revenue for the year ending December 31, 2013 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; (2) 56,769 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, 2013, 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 (3) 322,764 PBRsUs ("CAGR PBRsUs") have both performance and market conditions based on the Company's compound annual growth rate of revenue ("CAGR"), as defined in the grant agreement, and the Company's absolute TSR over the three-year performance period ending December 31, 2015, vesting in full on December 31, 2015, with the number of PBRsUs ultimately earned ranging from zero to 300% of the original award.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

The fair value of each of Revenue PBRUSU and CAGR PBRUSU is based upon the closing price of the Company's stock on the date of grant and adjusted each reporting period based on expected performance relative to the associated performance conditions. With regard to the CAGR PBRUSUs, whose vesting is dependent on a performance condition related to the Company's CAGR and a market condition related to the Company's TSR over the three-year period ending December 31, 2015, as of June 30, 2013 the Company determined that it would be premature to conclude that the achievement of the requisite performance condition is probable; as a result no expense has been recognized related to the CAGR PBRUSUs for the six months ended June 30, 2013.

The fair value of each TSR PBRUSU 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:

	2013 TSR PBRUSUs	
Expected volatility - Medidata	39	%
Expected volatility - NASDAQ Composite Index	15	%
Risk-free interest rate	0.16	%
Expected term	1 year	

The following table summarizes the status of the Company's PBRUSUs based upon expected performance as of June 30, 2013, and changes during the six months then ended (in thousands, except per share data):

	Number of Shares	Weighted- Average Grant-Date Fair Value
Nonvested at January 1, 2013	—	\$—
Granted (based on performance at 100% of targeted levels)	493	51.26
Adjustment related to expected performance	(236	) 50.24
Vested	—	—
Forfeited	—	—
Nonvested at June 30, 2013	257	\$52.20

As of June 30, 2013, there was a total of \$11.6 million of unrecognized compensation cost related to all nonvested PBRUSUs, as recorded in accordance with ASC 718. This cost is expected to be recognized over a weighted-average remaining period of 2.55 years.

**7. ACCUMULATED OTHER COMPREHENSIVE LOSS**

The changes in the balances of each component of accumulated other comprehensive loss during the first six months of 2013 are as follows:

	Foreign currency translation adjustments	Unrealized gains (losses) on available for sale securities	Total
Balance as of January 1, 2013	\$(53	) \$(10	) \$(63
Other comprehensive loss, net of tax	(1,015	) (20	) (1,035
Balance as of June 30, 2013	\$(1,068	) \$(30	) \$(1,098

For the six months ended June 30, 2013, reclassifications of items from accumulated other comprehensive loss to net income were insignificant.



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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

## 8. 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 restricted stock awards 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 anti-dilutive. A reconciliation of the numerators and denominators of basic earnings per share and diluted earnings per share for the three and six months ended June 30, 2013 and 2012 are shown in the following table (in thousands, except per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Numerator				
Net income	\$5,106	\$3,604	\$10,806	\$7,374
Denominator				
Denominator for basic earnings per share:				
Weighted average common shares outstanding	25,425	24,406	25,273	24,212
Denominator for diluted earnings per share:				
Dilutive potential common shares:				
Stock options	733	601	741	603
Restricted stock awards	478	270	452	267
Performance based restricted stock units	108	—	62	—
Weighted average common shares outstanding with assumed conversion	26,744	25,277	26,528	25,082
Basic earnings per share	\$0.20	\$0.15	\$0.43	\$0.30
Diluted earnings per share	\$0.19	\$0.14	\$0.41	\$0.29
Total number of anti-dilutive shares of stock options, nonvested restricted stock awards, and performance based restricted stock units excluded from calculation of diluted earnings per share	56	487	69	518

## 9. INCOME TAXES

The Company's effective tax rate for the three and six months ended June 30, 2013 was 42% and 33%, respectively, 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.

In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, reinstating the research and development tax credit retroactively from January 1, 2012 to December 31, 2013. As a result, in the first quarter of 2013 the Company recognized as a favorable discrete item a research and development tax credit of \$1.2 million related to 2012. Research and development tax credits generated in 2013 are being recognized pro rata as a component of the overall 2013 effective tax rate.

The Company's effective tax rate for the three and six months ended June 30, 2012 was 37% and 38%, respectively, and differed from the federal statutory rate of 35% primarily due to state and local income taxes and benefit associated with domestic production activities deduction.

The Company had approximately \$2.9 million of gross unrecognized tax benefits as of December 31, 2012. For the six months ended June 30, 2013, there was no change relating to the Company's tax positions. During the first quarter of 2013, the Company was informed by the Internal Revenue Service ("IRS") that the examination of its 2010 Federal

income tax return was completed, and no adjustment to the tax return was proposed by the IRS.

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MEDIDATA SOLUTIONS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS, CONTINUED (Unaudited)

10. 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, 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. 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 which is still pending. If this appeal is not successful and the decision is ultimately upheld, it will result in the elimination of the litigation. The Company believes that it has valid defenses to the lawsuit and intends to defend itself vigorously in the event the stay of the case is lifted. The probability of a favorable or unfavorable outcome to the Company in the event the stay of the case is lifted is unknown nor can the liability that could potentially result from a negative outcome be reasonably estimated. As a result, the Company has not recorded any accrual associated with this litigation. Additionally, given the status 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.

On July 31, 2012, DataTrak was issued U.S. Patent No. 8,234,294 (the "'294 Patent"), which is closely related to the '087 Patent previously asserted against the Company. On July 31, 2012, the Company filed a preemptive lawsuit against DataTrak in the U.S. District Court for the District of New Jersey seeking a declaratory judgment of patent invalidity and non-infringement concerning the '294 Patent. The case was transferred in May 2013 to the U.S. District Court for the Northern District of Ohio. On June 5, 2013, the Company voluntarily dismissed this lawsuit without prejudice. Should DataTrak commence or threaten litigation against the Company concerning the '294 Patent, the Company intends to defend itself vigorously.

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

**Change in Control Agreements** — In January 2009, the Company entered into 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. In March 2012, the Company amended the agreements with its named executive officers to eliminate tax gross-up payments.



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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, 2012 filed with the Securities and Exchange Commission, or SEC, on March 8, 2013.

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, 2012.

#### Overview

We are the leading global provider of cloud-based solutions for clinical research in life sciences, transforming clinical development through our advanced applications and intelligent data analytics. Our customers are pharmaceutical, biotechnology, and medical device companies, academic institutions, contract research organizations, or CROs, and other organizations engaged in clinical trials to bring medical products and treatments to market and explore new indications for existing medical products. Our solutions allow our customers 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 customers 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 customers, 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 and will continue to invest in key areas, including: new personnel, particularly in direct domestic and international sales activities; resources to support our product development, including new and expanded product capabilities; marketing programs to build brand awareness; and infrastructure to support growth.

We derive a majority of our application services revenues through multi-study arrangements for a predetermined number of studies. We also offer our application services on a single-study basis that allows customers to use our platform for a limited number of studies or to evaluate it prior to committing to multi-study arrangements. We invest heavily in training our customers, their investigators and other third parties to configure clinical trials independently. We believe this knowledge transfer accelerates customer adoption of our solutions. We also invest in training and enabling a network of implementation partners, primarily CROs, who can provide implementation support to customers who outsource data management and other activities to third parties.

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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 application services backlog.

Our customer base has grown from 173 at January 1, 2010 to 363 at June 30, 2013. 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 customers as well as sales and renewals from our existing customers. 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 93.7% and 96.7% for the six months ended June 30, 2013 and 2012, respectively. We calculate customer retention based upon the number of customers that existed both at the beginning and end of the relevant period. Revenues from lost customers for the six months ended June 30, 2013 and 2012 accounted for 0.6% and 0.5%, 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 most 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 June 30, 2013, revenues generated from customers located in Europe decreased slightly year over year and represented approximately 15% of total revenues as compared with 20% in the prior period. For the six months ended June 30, 2013, revenues generated from customers located in Europe decreased slightly year over year and represented approximately 15% of total revenues as compared with 19% in the prior period. For the three months ended June 30, 2013, revenues generated from customers located in Asia increased 16% year over year and represented approximately 13% of total revenues as compared with 14% in the prior period. For the six months ended June 30, 2013, revenues generated from customers located in Asia increased 12% year over year and represented approximately 13% of total revenues as compared with 15% 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 customers in these markets.

Currently, the majority of our professional services revenues are recognized as services are delivered; only an insignificant portion of professional services revenues continues to be recognized ratably over the term of the corresponding application services component, as required under current accounting standards until such multiple-element arrangements expire. Thus, our professional services no longer contribute to total backlog or deferred revenue in a significant manner. Consequently, we now monitor application services backlog as an indicator of the underlying health of our business.

Application services 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. Application services revenue generated in any given period is a function of revenue recognized from the beginning of period application services backlog, contract renewals, and new customer contracts. For this reason, application services backlog at the beginning of any period is not necessarily indicative of long-term future performance. We monitor the amount of revenue expected to be recognized from application services backlog over the current fiscal year while updating application services backlog each quarter to indicate how much remains to be recognized within the year. As of January 1, 2013, we had full year application services backlog of approximately \$186 million. The remaining amount of revenue to be recognized from application services backlog in the current year, or remaining application services backlog, as of June 30, 2013 is approximately \$110 million.

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 the high levels of customer satisfaction and our ability to increase sales to existing customers. 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 products 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 product offerings, expand our marketing efforts, and drive customer 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.

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### Sources of Revenues

We derive revenues from application services and professional services. Application services consist of multi-study or single-study arrangements, which give our customers the right to use our software solutions, hosting and site support, as well as clinical trial planning software solutions, which enable our customers to effectively manage their trial planning. Professional services consist of assisting our customers and partners with the design, workflow, implementation and management of their clinical trials.

Our application services 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 application services for an individual study and/or to evaluate our application services prior to committing to multi-study arrangements. Many of our customers have migrated from single-study arrangements to multi-study arrangements, which represent the majority of our application services revenues. We also offer other applications under our cloud-based platform that improve efficiencies for clinical trials from concept to conclusion.

Our professional services provide our customers with reliable, repeatable and cost-effective implementation and training in the use of our application services. We also offer consulting services to advise customers on ways to optimize their clinical development process from trial concept to conclusion. Professional services revenues have represented a smaller portion of overall revenues in recent years. Over the long term, we expect professional services revenues to decline slightly as a percentage of total revenues as our customers 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 hosting, maintaining and supporting our application suite 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 applications. 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 sales incentive costs as a result of our revenue growth. 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 resource 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 growth and the compliance requirements of operating as a public company. Over the long term, we believe that general and administrative expenses as a percentage of total revenues will decrease.

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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 2013, we expect that our effective income tax rate will range from 36 to 40 percent. 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 2028 and are subject to limitations under Section 382 of the Internal Revenue Code, or Section 382. 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-based compensation, goodwill and intangibles and income taxes. Except to the extent updated or described below, our critical accounting policies as of June 30, 2013 are the same as those at December 31, 2012, which are included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2012.

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 and employee stock purchase plans, 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 grants, 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 peer group of companies as a basis for determining the expected volatility together with the closing prices of our publicly-traded stock. We have increased and will continue to increase the weight of our own stock price volatility within the weighted average over time as sufficient trading history of our stock is established, with the intent of relying completely upon our own stock's volatility by 2014. In addition, 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 allowed 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 restricted stock award, or RSA, is measured as if the nonvested RSA was vested and issued on the grant date.

The fair value of each performance based restricted stock unit, or 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:

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the expected volatility of our stock price and, in some cases, the expected volatility of the NASDAQ Composite Index;  
the expected term; and  
risk free interest rates.

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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 use of different assumptions in the 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.

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.

Compensation expense for stock options, RSAs, and PBRsUs is recognized, net of estimated forfeitures, on a straight-line basis over the vesting period. In the case of PBRsUs with a performance condition, related compensation expense is recognized when it is probable that the condition will be achieved.

With regard to certain PBRsUs whose vesting is dependent on a performance condition related to our compound annual revenue growth, or CAGR, and a market condition related to our total stockholder return, or TSR, over the three-year period ending December 31, 2015, as of June 30, 2013 we determined that it would be premature to conclude that the achievement of the requisite performance condition is probable; as a result no expense has been recognized related to the CAGR PBRsUs for the six months ended June 30, 2013. If achievement of the performance condition is concluded to be probable in future periods, the related stock-based compensation expense when recognized could be significant.

## Results of Operations

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

Our typical practice is to sell application services and professional services in a multiple-element arrangement. In connection with our adoption of ASU No. 2009-13 on January 1, 2011, we began to recognize revenues from professional services as delivered for any multiple-element arrangements entered into or materially modified subsequent to 2011. Concurrently, as required by ASU No. 2009-13, we continue to recognize revenues from professional services ratably over the term of the multiple-element arrangements entered into prior to 2011 under the pre-amended ASC 605-25, Revenue Recognition — Multiple-Element Arrangements, until such arrangements expire. 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 gross margins to be more reflective of the services delivered during each reporting period. The revenue impact of multiple-element arrangements entered into prior to 2011 continues to decline significantly as those arrangements expire and more professional services revenues are recognized on an as delivered basis.

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

	Three Months Ended		Six Months Ended		
	June 30, 2013	2012	June 30, 2013	2012	
Revenues:					
Application services	82.8	% 77.6	% 81.5	% 77.0	%
Professional services	17.2	% 22.4	% 18.5	% 23.0	%
Total revenues	100.0	% 100.0	% 100.0	% 100.0	%
Cost of revenues:					
Application services	13.1	% 15.3	% 13.7	% 15.1	%
Professional services	11.7	% 14.1	% 12.2	% 14.1	%
Total cost of revenues	24.8	% 29.4	% 25.9	% 29.2	%
Gross profit	75.2	% 70.6	% 74.1	% 70.8	%
Operating costs and expenses:					
Research and development	17.8	% 19.9	% 18.3	% 19.8	%
Sales and marketing	23.9	% 22.9	% 23.4	% 21.8	%
General and administrative	20.5	% 17.1	% 20.2	% 17.8	%
Total operating costs and expenses	62.2	% 59.9	% 61.9	% 59.4	%
Operating income	13.0	% 10.7	% 12.2	% 11.4	%

## Three Months Ended June 30, 2013 Compared with Three Months Ended June 30, 2012

## Revenues

	Three Months Ended June 30,		Change			
	2013	2012			Amount	%
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
(Amount in thousands)						
Revenues:						
Application services	\$56,346	82.8 %	\$41,541	77.6 %	\$14,805	35.6 %
Professional services	11,723	17.2 %	11,972	22.4 %	(249)	(2.1) %
Total revenues	\$68,069	100.0 %	\$53,513	100.0 %	\$14,556	27.2 %

Total revenues. Total revenues increased \$14.6 million, or 27.2%, to \$68.1 million for the three months ended June 30, 2013 from \$53.5 million for the same period in 2012. The increase in revenues was primarily due to a \$14.8 million increase in revenues from application services partially offset by a \$0.2 million decrease in revenues from professional services. During the second quarter of 2013, we added 20 new customers to reach a total of 363 customers as of June 30, 2013. At the start of the second quarter of 2013, we had approximately \$156 million of 2013 remaining application services backlog. As of June 30, 2013, the total 2013 remaining application services backlog was approximately \$110 million.

Application services revenues. Revenues from application services increased \$14.8 million, or 35.6%, to \$56.3 million for the three months ended June 30, 2013 from \$41.5 million for the same period in 2012. The majority of the increase in application services revenues was derived from increased activity among our existing large and midmarket customers, primarily resulting from new studies and renewals. We also benefited from strong demand from both new and existing customers for multiple products. The revenues from products other than Medidata Rave, or non-Rave revenues, grew 144% compared with the prior period. Revenues from new customers accounted for 13% of the total increase in application services revenues. Application services revenues also increased significantly from both international and domestic customers compared with the prior period. Revenues from customers based in North America and Asia grew 52% and 16%, respectively.

Professional services revenues. Revenues from professional services remained relatively flat at \$11.7 million for the three months ended June 30, 2013 as compared with \$12.0 million for the same period in 2012.

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## Cost of Revenues

	Three Months Ended June 30, 2013		2012		Change			
	Amount	% of Revenues	Amount	% of Revenues	Amount	%		
(Amount in thousands)								
Cost of revenues:								
Application services	\$8,949	13.1	% \$8,213	15.3	% \$736	9.0	%	
Professional services	7,971	11.7	% 7,562	14.1	% 409	5.4	%	
Total cost of revenues	\$16,920	24.8	% \$15,775	29.4	% \$1,145	7.3	%	

Total cost of revenues. Total cost of revenues increased \$1.1 million, or 7.3%, to \$16.9 million for the three months ended June 30, 2013 from \$15.8 million for the same period in 2012.

Cost of application services revenues. Cost of application services revenues increased \$0.7 million, or 9.0%, to \$8.9 million for the three months ended June 30, 2013 from \$8.2 million for the same period in 2012. The increase was driven by higher third-party cloud hosting costs and higher technology-related expenses associated with our multi-year software-related licenses and service contracts entered into during the second quarter of 2012. The increase was also due to higher personnel-related costs resulting from increased headcount to support our business growth.

Cost of professional services revenues. Cost of professional services revenues increased \$0.4 million, or 5.4%, to \$8.0 million for the three months ended June 30, 2013 from \$7.6 million for the same period in 2012. The increase was mainly driven by higher personnel-related costs resulting from an increase in headcount to support our high demand for servicing of new products as well as demand from our new customers.

## Operating Costs and Expenses

	Three Months Ended June 30, 2013		2012		Change			
	Amount	% of Revenues	Amount	% of Revenues	Amount	%		
(Amount in thousands)								
Operating costs and expenses:								
Research and development	\$12,105	17.8	% \$10,628	19.9	% \$1,477	13.9	%	
Sales and marketing	16,253	23.9	% 12,263	22.9	% 3,990	32.5	%	
General and administrative	13,955	20.5	% 9,159	17.1	% 4,796	52.4	%	
Total operating costs and expenses	\$42,313	62.2	% \$32,050	59.9	% \$10,263	32.0	%	

Total operating costs and expenses. Total operating costs and expenses increased \$10.3 million, or 32.0%, to \$42.3 million for the three months ended June 30, 2013 from \$32.0 million for the same period in 2012. Costs increased in each department with the larger increases in general and administrative and sales and marketing expenses.

Research and development expenses. Research and development expenses increased \$1.5 million, or 13.9%, to \$12.1 million for the three months ended June 30, 2013 from \$10.6 million for the same period in 2012. The increase was primarily due to an increase in personnel-related costs of \$1.3 million, which was attributable to significant increases in staffing levels in order to accelerate the enhancement and broadening of our product offerings. Research and development expenses were also impacted by higher rent expense and use of outside consultants to support our business growth. We believe our investments in research and development position us to capitalize on the opportunities we see in our markets.

Sales and marketing expenses. Sales and marketing expenses increased \$4.0 million, or 32.5%, to \$16.3 million for the three months ended June 30, 2013 from \$12.3 million for the same period in 2012. The increase was primarily due to higher personnel-related costs of \$2.9 million, driven by higher sales incentive compensation costs as a result of higher sales performance 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. Higher stock-based compensation expenses were impacted by our equity awards granted in prior and



current years, and higher professional fees and travel-related costs also impacted expenses.

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General and administrative expenses. General and administrative expenses increased \$4.9 million, or 52.4%, to \$14.0 million for the three months ended June 30, 2013 from \$9.1 million for the same period in 2012. The increase was primarily due to higher personnel-related costs of \$3.9 million, particularly higher stock-based compensation costs of \$2.4 million as a result of our equity awards granted to our executives and employees in prior and current years. Higher professional fees and travel-related costs also impacted expenses.

## Income Tax Expense

Income tax expense increased \$1.7 million to \$3.8 million for the three months ended June 30, 2013 from \$2.1 million for the same period in 2012. The increase was the result of a higher pretax book income plus a higher effective tax rate at 42% versus 37% a year ago, primarily related to limits on deductible executive compensation under Section 162(m) of the Internal Revenue Code, partially offset by federal and state research and development tax credits.

## Six Months Ended June 30, 2013 Compared with Six Months Ended June 30, 2012

## Revenues

	Six Months Ended June 30, 2013		2012		Change			
	Amount	% of Revenues	Amount	% of Revenues	Amount	%		
	(Amount in thousands)							
Revenues:								
Application services	\$106,998	81.5	% \$79,937	77.0	% \$27,061	33.9	%	
Professional services	24,330	18.5	% 23,935	23.0	% 395	1.7	%	
Total revenues	\$131,328	100.0	% \$103,872	100.0	% \$27,456	26.4	%	

Total revenues. Total revenues increased \$27.4 million, or 26.4%, to \$131.3 million for the six months ended June 30, 2013 from \$103.9 million for the same period in 2012. The increase in revenues was primarily due to a \$27.1 million increase in revenues from application services and a \$0.3 million increase in revenues from professional services.

During the first half of 2013, we added 37 new customers to reach a total of 363 customers as of June 30, 2013. At the start of 2013, we had approximately \$186 million of 2013 full year application services backlog. As of June 30, 2013, the total 2013 remaining application services backlog was approximately \$110 million.

Application services revenues. Revenues from application services increased \$27.1 million, or 33.9%, to \$107.0 million for the six months ended June 30, 2013 from \$79.9 million for the same period in 2012. The majority of the increase in application services revenues was derived from increased activity among our existing large and midmarket customers, primarily resulting from new studies and renewals. We also benefited from strong demand from both new and existing customers for multiple products. The revenues from products other than Medidata Rave, or non-Rave revenues, grew 133% compared with the prior period. Revenues from new customers accounted for 11% of the total increase in application services revenues. Application services revenues also increased significantly from both international and domestic customers compared with the prior period. Revenues from customers based in North America and Asia grew 47% and 16%, respectively.

Professional services revenues. Revenues from professional services remained relatively flat at \$24.3 million for the six months ended June 30, 2013 as compared with \$23.9 million for the same period in 2012.

## Cost of Revenues

	Six Months Ended June 30, 2013		2012		Change			
	Amount	% of Revenues	Amount	% of Revenues	Amount	%		
	(Amount in thousands)							
Cost of revenues:								
Application services	\$17,974	13.7	% \$15,697	15.1	% \$2,277	14.5	%	
Professional services	16,075	12.2	% 14,693	14.1	% 1,382	9.4	%	
Total cost of revenues	\$34,049	25.9	% \$30,390	29.2	% \$3,659	12.0	%	



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Total cost of revenues. Total cost of revenues increased \$3.7 million, or 12.0%, to \$34.1 million for the six months ended June 30, 2013 from \$30.4 million for the same period in 2012.

Cost of application services revenues. Cost of application services revenues increased \$2.3 million, or 14.5%, to \$18.0 million for the six months ended June 30, 2013 from \$15.7 million for the same period in 2012. The increase was driven by the rise in personnel-related and hosting costs resulting from increased headcount and higher external costs, including third-party cloud hosting services and outside consultants, to support our business growth. The increase was also due to higher technology-related expenses associated with our multi-year software-related licenses and service contracts entered into during the second quarter of 2012.

Cost of professional services revenues. Cost of professional services revenues increased \$1.4 million, or 9.4%, to \$16.1 million for the six months ended June 30, 2013 from \$14.7 million for the same period in 2012. The increase was mainly driven by higher personnel-related costs resulting from an increase in headcount to support our high demand for servicing of new products as well as demand from our new customers.

## Operating Costs and Expenses

	Six Months Ended June 30,				Change			
	2013	2012	2013	2012	2013	2012	2013	2012
	Amount	% of Revenues	Amount	% of Revenues	Amount	%	Amount	%
	(Amount in thousands)							
Operating costs and expenses:								
Research and development	\$24,010	18.3	\$20,583	19.8	\$3,427	16.6	\$3,427	16.6
Sales and marketing	30,742	23.4	22,646	21.8	8,096	35.8	8,096	35.8
General and administrative	26,599	20.2	18,449	17.8	8,150	44.2	8,150	44.2
Total operating costs and expenses	\$81,351	61.9	\$61,678	59.4	\$19,673	31.9	\$19,673	31.9

Total operating costs and expenses. Total operating costs and expenses increased \$19.7 million, or 31.9%, to \$81.4 million for the six months ended June 30, 2013 from \$61.7 million for the same period in 2012. Costs increased in each department with the larger increases in general and administrative and sales and marketing expenses.

Research and development expenses. Research and development expenses increased \$3.4 million, or 16.6%, to \$24.0 million for the six months ended June 30, 2013 from \$20.6 million for the same period in 2012. The increase was primarily due to an increase in personnel-related costs of \$2.8 million, which was attributable to significant increases in staffing levels in order to accelerate the enhancement and broadening of our product offerings. Higher rent expense was another contributor to the overall increase. We believe our investments in research and development position us to capitalize on the opportunities we see in our markets.

Sales and marketing expenses. Sales and marketing expenses increased \$8.1 million, or 35.8%, to \$30.7 million for the six months ended June 30, 2013 from \$22.6 million for the same period in 2012. The increase was primarily due to higher personnel-related costs of \$6.6 million, driven by higher sales incentive compensation costs as a result of higher sales performance 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. Higher stock-based compensation expenses were impacted by our equity awards granted in prior and current years, and higher professional fees and travel-related costs also impacted expenses.

General and administrative expenses. General and administrative expenses increased \$8.2 million, or 44.2%, to \$26.7 million for the six months ended June 30, 2013 from \$18.5 million for the same period in 2012. The increase was primarily due to higher personnel-related costs of \$6.5 million, particularly higher stock-based compensation costs of \$4.3 million as a result of our equity awards granted to our executives and employees in prior and current years. An increase in our provision for doubtful accounts and higher travel-related costs also impacted expenses.

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## Income Tax Expense

Income tax expense increased \$0.9 million to \$5.4 million for the six months ended June 30, 2013 from \$4.5 million for the same period in 2012. The increase was primarily due to higher pretax book income in 2013, partially offset by a lower effective tax rate of 33% versus 38% a year ago. The decrease in effective tax rate was driven by federal and state research and development tax credits, partially offset by limits on deductible executive compensation under Section 162(m) of the Internal Revenue Code. With regard to research and development tax credits, we recognized a one-time catch-up tax benefit of \$1.2 million associated with the 2012 tax year in the first quarter of 2013 as a result of the American Taxpayer Relief Act of 2012, or ATRA, which was signed into law in January 2013. ATRA reinstated the research and development tax credit retroactively from January 1, 2012 to December 31, 2013.

## Liquidity and Capital Resources

Our principal sources of liquidity were cash, cash equivalents and marketable securities of \$140.4 million at June 30, 2013 and \$122.6 million at December 31, 2012. Cash and cash equivalents increased \$5.9 million during the first six months of 2013 primarily impacted by increased billings from our strong sales activities and collections from our accounts receivable, and proceeds from stock option exercises. 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 substantially consist 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.

We have a \$10.0 million revolving line of credit under our senior secured credit facility, as amended, that matures in September 2013. Except for the \$4.0 million reduction of the available amount due to standby letters of credit issued in connection with the office leases executed under our credit agreement, the revolving line of credit remains undrawn. As of June 30, 2013, approximately \$6.0 million of the revolving line of credit was still available for future borrowings. Due to the structure of the credit agreement, any future borrowings under the revolving line of credit will be classified as a current liability. As of June 30, 2013, the effective interest rate for our senior secured credit facility, as amended, was 2.70%, if borrowing under the U.S. London Interbank Offer Rate, or LIBOR, option. We are in compliance with all covenants under our senior secured credit facility, as amended, as of June 30, 2013.

We believe that our cash flows from operations, existing cash and cash equivalents and highly liquid marketable securities and our availability under our existing revolving line of credit will be sufficient to satisfy the anticipated cash requirements associated with our existing operations for the foreseeable future. For the remainder of 2013, we expect to make approximately \$34 to \$35 million in capital expenditures, primarily related to leasehold improvements in our new corporate headquarters in New York City. 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 various corporate functions. We expect to acquire out capital equipment through purchases as opposed to capital lease arrangements.

## Cash Flows Provided By Operating Activities

Cash flows provided by operating activities during the six months ended June 30, 2013 were \$29.1 million, which consisted primarily of net income of \$10.8 million, non-cash adjustments, including stock-based compensation of \$12.3 million, depreciation and amortization of \$3.3 million and deferred income taxes of \$3.9 million, as well as changes in working capital. The change in working capital includes decreases in deferred revenue of \$4.1 million, accounts receivable of \$3.3 million, and accrued payroll and other compensation of \$2.3 million. The fluctuation in accounts receivable and deferred revenue was primarily due to our strong customer collections and higher billing activities. The decrease in accrued payroll and other compensation was related to our payment of annual bonuses. Cash flows provided by operating activities during the six months ended June 30, 2012 were \$8.2 million, which consisted primarily of net income of \$7.4 million, non-cash adjustments, including stock-based compensation of \$5.3 million, depreciation and amortization of \$4.0 million and deferred income taxes of \$3.3 million, as well as changes in working capital. The change in working capital includes increases in accounts receivable of \$10.7 million, deferred revenue of \$4.6 million, and prepaid expenses and other current assets of \$2.7 million. The fluctuation within accounts receivable and deferred revenue was primarily due to higher billing activities, partially offset by our strong customer

collections, as well as the timing of associated revenue recognition. The increase in prepaid expenses and other current assets related to payments for multi-year software-related licenses and service contracts expected to be utilized over the following three years.

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Table of Contents**Cash Flows Provided by Investing Activities**

Cash flows used in investing activities during the six months ended June 30, 2013 were \$19.4 million, which was related to \$78.3 million in purchases of marketable securities and \$6.8 million in capital expenditures, partially offset by \$65.3 million in proceeds from sale and maturity of marketable securities and decrease in restricted cash of \$0.4 million. For the six months ended June 30, 2013 we did not acquire any furniture, fixtures, and equipment through capital lease arrangements.

Cash flows provided by investing activities during the six months ended June 30, 2012 were \$3.4 million, which was related to \$43.0 million in proceeds from the sale and maturity of marketable securities, partially offset by \$36.3 million in purchases of marketable securities and \$3.2 million in purchases of furniture, fixtures and equipment. For the six months ended June 30, 2012 we acquired an insignificant amount of equipment through capital lease arrangements.

**Cash Flows Provided by Financing Activities**

Cash flows used in financing activities during the six months ended June 30, 2013 were \$3.8 million, which was primarily due to \$10.5 million relating to the acquisition of treasury stock in connection with the vesting of restricted stock awards and \$0.4 million in acquisition-related earn-out payments, partially offset by \$6.2 million in proceeds from stock option exercises and \$1.0 million of excess tax benefit realized from equity awards.

Cash flows provided by financing activities during the six months ended June 30, 2012 were \$1.8 million, which was primarily due to \$4.6 million in proceeds from stock option exercises and \$0.7 million of excess tax benefit realized from equity awards, partially offset by \$3.1 million relating to the acquisition of treasury stock in connection with the vesting of restricted stock awards and \$0.3 million in acquisition-related earn-out payments.

**Contractual Obligations, Commitments and Contingencies**

The following table of our material contractual obligations as of June 30, 2013 summarizes the aggregate effect that these obligations are expected to have on our cash flows in the periods indicated (in thousands):

	Payments Due by Period				
	Total	Remainder of 2013	2-3 years	4-5 years	More than 5 years
<b>Contractual Obligations:</b>					
Operating lease obligations	\$73,094	\$2,483	\$13,413	\$13,006	\$44,192
Capital lease obligations	132	30	102	—	—
Contingent consideration obligations	1,040	—	1,040	—	—
Letters of credit	3,887	3,887	—	—	—
<b>Total</b>	<b>\$78,153</b>	<b>\$6,400</b>	<b>\$14,555</b>	<b>\$13,006</b>	<b>\$44,192</b>

In October 2012, we entered into a new lease agreement for our corporate headquarters in New York, New York. Pursuant to the lease agreement, the lease has a term of ten years that commences when the new space is ready for occupancy. In the interim, we have continued to occupy our existing New York office space. The lease term for our new headquarters commenced on July 1, 2013 when we took possession of the space.

Other than stated above, there was no material change in our contractual obligations during the first six months of 2013.

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In January 2009, we entered into agreements with certain of our executive officers that provide them with certain benefits upon the termination of their employment following a change of control in our company. The agreements provide that, upon a qualifying 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. In March 2012, we amended the agreements with our named executive officers to eliminate the tax gross-up payments.

On March 4, 2011, DataTrak International, Inc. 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 which is still pending. If this appeal is not successful and the decision is ultimately upheld, it will result in the elimination of the litigation. We believe that we have valid defenses to the lawsuit and intend to defend it vigorously in the event the stay of the case is lifted. The probability of a favorable or unfavorable outcome to us in the event the stay of the case is lifted is unknown 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 status 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.

On July 31, 2012, DataTrak was issued U.S. Patent No. 8,234,294, or the '294 Patent, which is closely related to the '087 Patent previously asserted against us. On July 31, 2012, we filed a preemptive lawsuit against DataTrak in the U.S. District Court for the District of New Jersey seeking a declaratory judgment of patent invalidity and non-infringement concerning the '294 Patent. The case was transferred in May 2013 to the U.S. District Court for the Northern District of Ohio. On June 5, 2013, we voluntarily dismissed this lawsuit without prejudice. Should DataTrak commence or threaten litigation against us concerning the '294 Patent, we intend to defend ourselves vigorously.

Effects of Recently Issued Accounting Standards

In June 2011, the FASB issued ASU No. 2011-05, *Presentation of Comprehensive Income*, which removes the presentation options contained in ASC 220, *Comprehensive Income*, and requires entities to report components of comprehensive income in either a continuous statement of comprehensive income or two separate but consecutive statements. Under the two-statement approach, the first statement would include components of net income, which is consistent with the format of statement of operations used today, and the second statement would include components of other comprehensive income. In December 2011, the FASB issued ASU No. 2011-12, *Deferral of the Effective Date for Amendments to Presentation of Reclassification of Items Out of Accumulated Other Comprehensive Income* in ASU 2011-05, to defer indefinitely the effective date of the specific requirement to present items that are reclassified out of accumulated other comprehensive income to net income alongside their respective components of net income and other comprehensive income. All other provisions of ASU No. 2011-05 are effective for interim and annual periods beginning after December 15, 2011, and must be applied retrospectively for all periods presented in the financial statements. We adopted the applicable provisions of ASU No. 2011-05 on January 1, 2012. The adoption did not have a material impact on our consolidated financial statements other than a change in their presentation. In February 2013, the FASB issued ASU No. 2013-02, *Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income*, which supersedes and replaces the presentation requirements for reclassifications out of accumulated other comprehensive income in ASU No. 2011-05 and ASU No. 2011-12. ASU No. 2013-02 is effective for reporting periods beginning after December 15, 2012. We adopted ASU No. 2013-02 on January 1, 2013 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.

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### 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 \$38.6 million at June 30, 2013. The majority of our cash equivalents is invested in money market funds. We also had investments in marketable securities, which we classify as available-for-sale securities, totaling \$101.8 million at June 30, 2013. 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. The unrestricted cash and cash equivalents as well as 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 short-term nature and 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. Declines in interest rates, however, would reduce future investment income.

We have a floating rate revolving line of credit under our senior secured credit facility, as amended, which is currently undrawn. Accordingly, we will be exposed to fluctuations in interest rates if such revolving line of credit is drawn. Assuming the maximum available amount of our revolving line of credit was drawn as of June 30, 2013, each hundred basis point change in prime rate or LIBOR would result in a change in interest expense by an average of approximately \$0.1 million annually.

#### 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 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 \$1.4 million for the six months ended June 30, 2013. 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 fair value of contingent consideration is determined based on the likelihood of contingent earn-out payments. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.



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Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of June 30, 2013, 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 June 30, 2013.

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 10, “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, 2012 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, 2012. 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

## Sales of Unregistered Securities

Not applicable.

## Purchases of Equity Securities by the Issuer and Affiliated Purchasers

From time to time, we grant restricted stock awards 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. On the date of vesting of restricted shares, 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, which equals to the amount of plan participants’ income tax withholding obligation.

A summary of our repurchases of shares of our common stock for the three months ended June 30, 2013 was 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
April 1 – April 30, 2013	—	\$—	—	—
May 1 – May 31, 2013	122,759	71.88	—	—
June 1– June 30, 2013	20,937	72.21	—	—
Total	143,696	\$71.93	—	—

(1) Represents the number of shares acquired as payment by employees of applicable statutory minimum withholding taxes owed upon vesting of restricted stock 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: August 1, 2013

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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.