

advanced  
technology for  
clinical  
development

09.

ANNUAL REPORT





**Tarek A. Sherif**  
Chairman & Chief Executive Officer

## Dear Medidata Investor:

During 2009, we celebrated our 10-year anniversary and consummated a successful Initial Public Offering, two very significant milestones in our history. We founded Medidata with the mission of developing clinical research solutions that help to improve the quality of life. Following a decade of innovation and strong execution, we have become a market leader in technologies that improve the efficiency of clinical drug development and thus help to bring new life-enhancing treatments to market.

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We experienced significant growth in all markets, further solidifying our position as a market leader and bringing enhanced efficiencies to our customers' clinical development processes.

We are proud of what we have accomplished to date. We focused on our overriding business principles of emphasizing our customers' success and operating with integrity in a spirit of partnership, while fostering a culture that values innovation, collaboration and quality. Our successful IPO in 2009, especially significant given the financial environment, is a testament to our strategic and financial accomplishments and the opportunities that lie before us. Importantly, it has given us the resources to continue to execute on our mission over the next decade.

Our operational achievements in 2009 have set the stage for our continuing success. We experienced significant growth in all markets, further solidifying our position as a market leader and bringing enhanced efficiencies to our customers' clinical development processes.

In light of the economic and structural pressures life science companies presently face, Medidata's value proposition — helping companies achieve greater operating efficiencies through state-of-the-art technology that replaces inefficient manual processes — resonates strongly. We offer innovative solutions that automate and enhance key processes and workflows. Our approach is highly scalable and drove record financial results for the year in revenues, margins and profitability.

Medidata's success in 2009 can be captured in three overriding themes: significant and profitable growth, strong execution of our strategy and the positioning of Medidata for a successful future.

## Our Growth

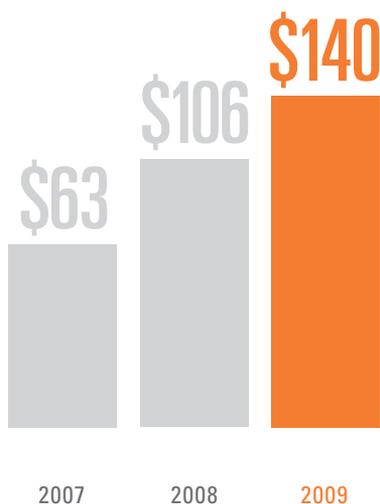
Throughout the year, we witnessed strong demand for Medidata's innovative solutions from new customers in all sectors — biopharmaceutical, medical device, academic and government research centers, and service providers such as contract research organizations — as well as from existing customers through contract renewals, additional product usage and new product adoption. Medidata finished 2009 with record revenues of \$140 million, growing 33% over 2008, and we closed the year with a record number of customers — 173 companies, up from 148. Gross profits for the year totaled \$90 million, resulting in 64% gross margins and representing a twelve percentage point improvement from the previous year. Non-GAAP operating income\* for the year increased to \$24 million compared with a loss of \$4 million in 2008. The continually improving trend in profitability is a direct result of our business model, as well as our success in controlling operating costs.

We maintained and grew our solid representation in major global pharmaceutical companies, where we count 22 of the top 25 as customers. Our products' attributes and solid customer loyalty have resulted in expanded opportunities and continuing commitments from our large customers.

In 2009, Medidata experienced particularly strong growth among mid-sized and smaller companies. Medidata Rave can be configured for the needs of any size company and scale with its growth. Our substantial contract research organization partner base serving those companies has propelled our penetration of this sector.

Furthermore, we saw significant growth in the underpenetrated academic and government research center sector. Driven by the scale, complexity and importance of the research they conduct, these organizations are increasingly purchasing proven, scalable third-party clinical trial technologies such as Medidata Rave.

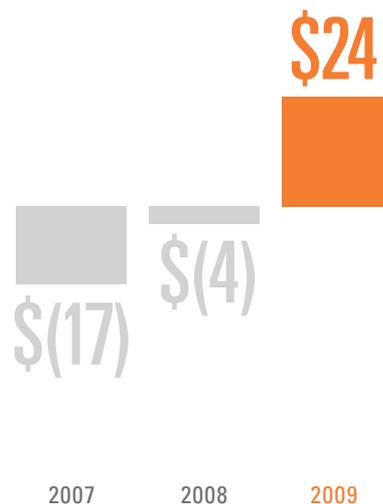
**TOTAL REVENUES**  
(\$ in millions)



**GAAP OPERATING INCOME**  
(\$ in millions)



**NON-GAAP OPERATING INCOME\***  
(\$ in millions)



\*Non-GAAP operating income excludes the impact of depreciation, amortization of purchased intangible assets and acquisition-related charges, and stock-based compensation expense. See investor.mdsol.com for reconciliations to generally accepted accounting principles (GAAP) for the non-GAAP financial measures included in this annual report. A copy of this information can also be requested free of charge by contacting the company's investor relations department.

With the execution of clinical trials becoming increasingly global, we were ideally positioned to take advantage of the growth in business outside of the United States by virtue of our established footprint, solid partnerships and proven expertise. Medidata witnessed notable growth throughout the year in Asia Pacific, adding seven new customers and three new partners, and in Europe, with six new customers. In Japan, where Medidata Rave has already been used in hundreds of studies, we released an enhancement in 2009 that enables sponsors to meet the requirements of Japanese post-marketing studies, solidifying our leading regional position. We also continue to expand our on-site presence in Asia Pacific, most recently opening an office in China.

Our contract research organization partnership program, Medidata ASPire to Win, continues to grow in importance for us and for our customers. We ended the year with a total of 25 partners in the program. Fourteen partners invested to achieve the highest accreditation level, becoming eligible to offer a full-range of Medidata Rave-related services.

All of these accomplishments are a direct result of the extraordinary dedication of the global Medidata team, whose focus on exceeding customer expectations drives our company's ability to serve the market and lead the industry.

## Our Strategy

Clinical development is process-intensive, costly and critical to the success of our customers. Medidata's approach has been to offer technology that brings efficiencies to existing trial processes and enables additional efficiencies by simplifying workflows, reducing redundancies and creating interoperability. Our customers choose the

The combination of easy-to-use technology and proven programs that transfer skills and best practices to customers has increasingly become a differentiator in the marketplace and a key driver of our strong results.

Our strategy of reducing customers' total costs by providing efficiencies and enhancements for their clinical trial process furthers our position as a valued strategic business partner.

Medidata Rave platform for its rich electronic data capture and clinical data management functionality and for its standards-based interoperability with other clinical trial applications.

Our customers also choose us for our industry-leading vision and ability to bring innovative new products to market. Other Medidata products, including Medidata Grants Manager, Medidata CRO Contractor, Medidata Designer, Medidata Rave Monitor and Medidata Rave Safety Gateway, bring enhanced efficiencies to processes in clinical development, including budgeting and management, protocol development, site monitoring and serious adverse event reporting.

The combination of easy-to-use technology and proven programs that transfer skills and best practices to customers has increasingly become a differentiator in the marketplace and a key driver of our strong results. Our business strategy of developing products that are intuitive and user-configurable, along with our focus on customer enablement, leads to robust growth in higher margin Application Services revenues and minimizes the need for follow-on Professional Services expenses.

## Our Future

Medidata's operational and financial results for 2009 reflect an exceptionally strong year, providing a solid foundation on which to build in 2010. Completing our IPO allowed us to strengthen our balance sheet and to invest for future success. We ended the year with approximately \$90 million in cash, cash equivalents and marketable securities, as well as significant contract backlog that provides visibility to a robust revenue stream in the coming year.

Our target market — life science companies and other organizations conducting clinical trial research — continues to be a significant sector for the global economy. The need to test new drug compounds and other treatments in human trials will continue to be a highly resource-intensive portion of life science research. Our strategy of reducing customers' total costs by providing efficiencies and enhancements for their clinical trial process furthers our position as a valued strategic business partner.

At the start of this new decade, we are excited by the opportunities that innovation can bring to driving greater efficiencies in clinical research. Our culture of collaboration with customers will continue to drive us to achieve our shared goal of bringing new medical therapies to market quickly. I am confident that we will continue to lead the industry in providing the tools and support that improve the drug development process and reduce our customers' total cost of development while creating value for our shareholders. I look forward to reporting to you on our continuing success in 2010 and the years beyond.

Best regards,



**Tarek A. Sherif**  
Chairman & Chief Executive Officer

09.

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

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

**For the fiscal year ended December 31, 2009**

**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)

**79 Fifth Avenue, 8th Floor  
New York, New York**

(Address of principal executive offices)

**13-4066508**

(I.R.S. Employer  
Identification No.)

**10003**

(Zip Code)

**(212) 918-1800**

(Registrant's telephone number, including area code)

**Securities registered under Section 12(b) of the Exchange Act:**

Title of each class

Name of each exchange on which registered

Common Stock, par value \$0.01 per share

The NASDAQ Stock Market LLC

**Securities registered under Section 12(g) of the Exchange Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.  Yes  No

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

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

The registrant's common stock has been traded on the Nasdaq Global Market since June 25, 2009. As of June 30, 2009, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately \$240,110,505 based on the closing sale price for the registrant's common stock on the NASDAQ Global Market on that date of \$16.38 per share. For purposes of determining this number, all executive officers and directors of the registrant are considered to be affiliates of the registrant, as well as individual shareholders holding more than 10% of the registrant's outstanding common stock. This number is provided only for the purpose of this report on Form 10-K and does not represent an admission by either the registrant or any such person as to the status of such person.

As of March 8, 2010, the registrant had 23,025,344 shares of common stock outstanding.

**Documents Incorporated by Reference:**

Part III of this Annual Report on Form 10-K incorporates by reference certain information that will be set forth in the registrant's Proxy Statement, which is expected to first be mailed to shareholders on or around April 9, 2010, prepared for the Annual Meeting of Stockholders scheduled for May 18, 2010. Except with respect to information specifically incorporated by reference in this Form 10-K, the Proxy Statement is not deemed to be filed as part of this Form 10-K.



**MEDIDATA SOLUTIONS, INC.**  
**ANNUAL REPORT ON FORM 10-K**  
**FOR THE FISCAL YEAR ENDED DECEMBER 31, 2009**  
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## PART I

*For purposes of this Annual Report, the terms “Medidata,” “Company,” “we,” “us” and “our” refer to Medidata Solutions, Inc. and its consolidated subsidiaries. This Annual Report on Form 10-K contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (“Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (“Exchange Act”), and is subject to the “safe harbor” created by those sections. 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 as of the date of this Annual Report on Form 10-K 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. We caution readers not to place undue reliance upon any such forward-looking statements. We urge you to consider the risks and uncertainties discussed in “Risk Factors” under Item 1A in this Annual Report on Form 10-K in evaluating our forward-looking statements.*

### **Item 1. Business**

#### **Company Overview**

We are a leading global provider of hosted clinical development solutions that enhance the efficiency of our customers’ clinical development processes and optimize their research and development investments. Our customers include pharmaceutical, biotechnology and medical device companies, academic institutions, contract research organizations, or CROs, and other organizations engaged in clinical trials to bring innovative medical products to market and explore new indications for existing medical products. Our solutions allow our customers to achieve clinical results more efficiently and effectively by streamlining the design, planning and management of key aspects of the clinical development process, including protocol development and trial set-up; CRO negotiation; investigator contracting; the capture and management of clinical trial data and analysis and reporting of that data on a worldwide basis; trial operation tracking and monitoring; and data flow and interoperability among customers’ multiple trial applications. Our customers rely on our solutions to safely accelerate the clinical development process and maximize the commercial life of their products.

Our principal offering, Medidata Rave, is a comprehensive platform that integrates electronic data capture, or EDC, with a clinical data management system, or CDMS, in a single solution that replaces traditional paper-based methods of capturing and managing clinical data. Medidata Rave offers a robust, flexible platform enabling sponsors to manage increasingly complex trials. Medidata Rave’s intuitive, user-friendly Internet-based technology facilitates rapid adoption by investigators, sponsors and CROs. The Rave platform is based on industry standards, and provides interoperability for applications throughout the development process. In addition, our on-demand, hosted technology platform facilitates rapid and cost-effective deployment of our solutions on a global basis. We have designed our Medidata Rave software to scale reliably and cost-effectively for clinical trials of all sizes and phases, including those involving substantial numbers of clinical sites and patients worldwide.

We also offer applications that improve efficiencies in protocol development and trial planning, contracting and negotiation. Our Medidata Designer application, a clinical trial protocol authoring tool, enables customers to write trial protocols more effectively and automatically configure Medidata Rave. By eliminating the need to separately configure the EDC platform, Medidata Designer reduces overhead cost and shortens the planning phase of the development process. Our Medidata Grants Manager product enables our customers to increase the efficiency of trial budgeting and investigator contracting as well as improving compliance. Our Medidata CRO Contractor application facilitates CRO outsourcing, budgeting and contract negotiation.

We derive a majority of our revenues from Medidata Rave application services through multi-study arrangements for a pre-determined number of studies. We also offer our application services on a single-study basis that allows customers to use our solution for a limited number of studies or to evaluate it prior to committing to multi-study arrangements. We support our solutions with comprehensive service offerings, which include global consulting, implementation, technical support and training for customers and investigators. 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.

Our diverse and expanding customer base currently includes 22 of the top 25 global pharmaceutical companies measured by revenue and many middle-market life sciences companies, as well as CROs through our AS*P*ire to Win program. In 2009, Amgen, AstraZeneca, Johnson & Johnson, Roche and Takeda Pharmaceutical were our largest customers measured by revenues.

Our deep expertise derived from facilitating over a thousand studies across all development phases and therapeutic areas in more than 100 countries has positioned us as a leader in providing clinical trial solutions. For 2009, we generated \$140.4 million in revenues, a 32.8% increase over 2008. Our business model provides us with a recurring revenue stream that we believe delivers greater revenue visibility than perpetual software licensing models.

## **The Medidata Solution**

Medidata offers a broad set of advanced technology solutions aimed at achieving efficiencies across the clinical research process in order to lower the total cost of clinical development at our customers. Our approach is to offer technology that not only brings efficiencies to existing processes, but also to enable new efficiencies by simplifying work flows, reducing redundancies, and creating interoperability across our customers' clinical trial environments.

Our software solutions and services allow users to accurately and efficiently design clinical trials; develop and administer trial budgets; capture, manage and report clinical trial data; and report and monitor operational information through easy-to-use, Internet-enabled platforms. We believe our solutions provide our customers with the following benefits:

- *Accelerated time to market.* Our on-demand platform and delivery model streamlines the clinical development process, enabling users to compress the time associated with designing and implementing clinical trials and entering, cleansing and analyzing data. By reducing the clinical trial timeline through early and ongoing integration of multiple data sources, our solution accelerates the medical product development process, thereby maximizing commercial life under patent protection. In addition, our data products provide customers with benchmarking tools that can be used to improve speed, quality and efficiency of clinical trials.
- *Improved quality and visibility of results.* Medidata Rave allows users engaged in clinical trials to enhance the quality and completeness of their data earlier in the process by providing real-time data cleansing and eliminating duplicative manual entry of data. Decision making is enhanced through consistent access to reliable data, including allowing for adaptive trial design, the early identification and termination of unsuccessful trials and timely access to trial data that may identify significant safety concerns.

- *Comprehensive clinical development solution.* We have designed our comprehensive solutions to provide support throughout the clinical development process, from protocol authoring to preparing data for regulatory analysis and submission. We provide third party technology providers with access to our application programming interface, or API, and developer tools, which facilitates integration with complementary business systems. Medidata Rave can be integrated easily with auxiliary clinical and operational data systems, making it the backbone for a complete end-to-end solution. Medidata Rave's comprehensive security model also simplifies the management of double-blinded studies within a single platform.
- *Enhanced investigator acceptance.* We have designed the user interface of our application services to meet the needs of clinicians, with intuitive, consistent point-and-click navigation and a familiar clinical data entry approach. We have incorporated user input into the design of our interface and provide embedded training tools to accelerate end-user adoption.
- *Seamless execution of global trials.* Medidata Rave provides a single data repository that can be used in multiple languages simultaneously, avoiding the need for the installation and maintenance of parallel versions of the system. This capability allows investigators around the world to enter data in a variety of languages while enabling monitors and data managers to view the same data in a consistent language.
- *Lower cost of ownership.* Our product architecture scales reliably and cost-effectively across clinical trials of all sizes. Our customers can run all clinical trials on a single instance, further reducing deployment cost per study.

## **Our Strategy**

Our strategy is to become the global standard for application service solutions for EDC and other clinical trial technologies that increase efficiencies, reduce redundancies and optimize the clinical development process. Key elements of our strategy include:

- *Expand our global customer base.* We expect EDC adoption to increase, resulting in significant growth in spending on EDC solutions. We will continue to pursue new relationships with large global pharmaceutical and biotechnology companies by leveraging our support infrastructure, unique language translation capabilities and industry expertise. In addition, we have marketing, sales and services resources dedicated to small- and middle-market life sciences companies, as we believe this market represents an under-penetrated opportunity for customer expansion.
- *Increase sales to our existing customers.* We intend to drive adoption of our products and services within our existing customer base by facilitating the use of our application services in new trials and converting existing single-study customers into multi-study customers. We expect our knowledge transfer model to accelerate customer adoption, resulting in additional licensing opportunities. Further, we will continue to demonstrate the significant efficiencies that our customers can achieve by standardizing their end-to-end clinical development processes on our platform.
- *Enhance our suite of products and services.* We intend to continue to add new functionalities and features to our existing offerings and add new offerings to maximize the efficiency of the clinical development process, covering not just clinical data collection from patients and sites but also operational data collection and reporting to enable a smoother and more resource-efficient development process. For example, our acquisition of Fast Track Systems, Inc., or Fast Track, in March 2008 has enabled us to add capabilities in the areas of trial planning, including collaborative protocol authoring, contracting and negotiation. We believe our clinical trials expertise will enable us to leverage our customers' operational data to provide metrics-driven insights and advisory services to facilitate enhanced market penetration.
- *Expand indirect sales channel initiatives.* We will continue to pursue strategic partnerships with CROs and healthcare information technology consultants to position our software solutions as the platform of

choice for their outsourced clinical trial management services. Through our *ASpire to Win* program, we provide support and training to enable CROs to cost-effectively implement our products and services in sponsor studies and to provide additional services related to clinical trial design and deployment. This channel provides a cost-effective means for smaller companies and study-by-study customers to adopt Medidata technology, broadening our reach.

## **Our Solutions**

We provide clinical development solutions for life science organizations around the world. Our solutions include software and services that enable organizations to systematically design protocols; capture, manage and report clinical data; and analyze the results of that data in a cost-effective and efficient manner. Additional functionalities allow aggregation and reporting of patient information in support of other clinical operations functions such as adverse event reporting and investigator monitoring. We have also designed solutions to enable our customers to efficiently plan clinical trials by providing budgeting, pricing, workflow and relationship management capabilities. Our software-as-a-service business model eliminates the costs associated with installing and maintaining applications within the customer's information technology infrastructure.

### ***Products and Services***

#### ***Application Services***

***Medidata Rave.*** Medidata Rave combines a scalable EDC solution with a robust and fully integrated CDMS. Medidata Rave's rich functionality allows customers to build clinical trials and capture, manage and report clinical trial data on a global basis and in multiple languages:

- ***Build.*** Medidata Rave offers a complete set of capabilities designed to allow clinical trial teams to build and deploy studies without the need for software programming professionals. Study teams can configure and manage ongoing revisions of case report forms, trial workflow, requirements for source document verification and complex data-cleaning algorithms. Integrated tools for the re-use of previously built studies and study components further streamline the deployment process when building multiple trials.
- ***Capture.*** Medidata Rave's intuitive user interface facilitates the capture and cleaning of data from global investigator sites, and is designed to provide compliance with regulatory requirements through comprehensive and easy-to-use audit trails and support for electronic signatures. Medidata Rave also allows for the real-time integration of data from other sources, including laboratory information management systems, or LIMS, paper case report forms, ePRO devices and IVRS/IWRS.
- ***Manage.*** Medidata Rave's web-based interface provides clinical data management and operations personnel with the ability to monitor, query, code and obtain real-time reports and views of study data. The platform further provides comprehensive tools for automated cleaning, tracking, import and export of all study data, and allows independent transformation of clinical data for use in data analysis and warehousing. Medidata Rave's Amendment Manager and version control capabilities allow customers to manage mid-study changes without system downtime. Our strong support for industry standards, such as those provided by the clinical data interchange standards consortium, or CDISC, provides a foundation for integration with other systems at sponsors, CROs and their technology partners.
- ***Report.*** Medidata Rave's platform provides insight into both clinical and metric data in real time. Study teams can extract and analyze both clinical and operational data, which allows customers to view progress on their individual studies and current pipeline status across all of their studies. By reporting data during the course of the study, our platform enables sponsors to analyze interim data utilizing an adaptive trial design to modify the study conduct prior to its completion. Multiple language trials are also supported through the reporting phase. Monitors and sponsors have real-time access to reports in multiple languages, regardless of the data input language. In addition, recent extensions to the

Medidata Rave platform provide enhanced capabilities for our customers by automating processes to increase efficiencies and reduce the amount of resources required for clinical trial set-up and implementation. These include:

- ***Rave Monitor***, which offers site visit report functionality as an integral part of the Medidata Rave system, providing an efficient, compliant and cost-effective way to manage site visits by research monitors. Rave Monitor provides users with online and offline visit report capture, approval workflow and inter-study and cross-study status reporting, within the context of their existing Medidata Rave deployment.
- ***Rave Safety Gateway***, which provides a solution for collecting and transmitting serious adverse events and related data from sites to safety reporting systems, reducing potential errors and enhancing reporting speed. Safety Gateway automatically transmits safety case data entered into Medidata Rave at sites to sponsors' safety reporting systems using an industry-standard file format, reducing the burden of collecting and reconciling safety data.

***Medidata Designer***. Medidata Designer, our protocol authoring tool, enhances the efficiency of clinical trial start-up by structuring protocol development with intuitive tools, guiding clinical research teams through the study design and set-up processes. Medidata Designer facilitates integration with downstream clinical trial processes and systems, including data capture, management, analysis and electronic data submission. Medidata Designer can automatically configure Medidata Rave studies, ensuring quality, consistency and efficiency for customers collaborating through both products. A recent extension to this tool, Medidata Designer Gateway, is an interface for clinicians and data managers that enables our customers to more efficiently build a structured study protocol and harmonize those study-level and library-level protocol procedures with the EDC forms contained in Medidata Rave.

***Medidata Grants Manager***. Medidata Grants Manager enables our customers to benchmark their investigator budgets against industry data as well as their own grant history to increase the efficiency of site contracting and to ensure fair and consistent site payments. Medidata Grants Manager includes data from nearly one quarter of a million grants and contracts and approximately 27,000 protocols in over 1,400 treatment indications.

***Medidata CRO Contractor***. Medidata CRO Contractor focuses on benchmarks for CRO outsourcing, budgeting and negotiation, similar to Medidata Grants Manager. Our database includes reliable cost benchmarks from contracts with more than 500 global CROs.

***Hosting***. Substantially all of our customers use our hosting services for Medidata Rave at our dedicated data center in Houston, Texas, which was designed specifically to optimize the delivery of our application services and to ensure the availability and security of our customers' research data. Our state of the art facility includes 24 by 7 staffing, enterprise class security, redundant power and cooling systems, large-scale data back-up capabilities and multiple Internet access points and providers. In addition, we maintain back-up facilities located in Secaucus and Piscataway, New Jersey and use SAVVIS, IBM and Iron Mountain for disaster recovery services and offsite data storage.

Our hosting operations incorporate industry-standard hardware, databases and application servers in a flexible, scalable architecture. Elements of our applications' infrastructure can be replaced or added with minimal interruption in service in order to reduce the likelihood that the failure of any single device will cause a broad service outage. We can scale to increasing numbers of customers by adding industry-standard computers and servers and have invested heavily in our data center operations to expand our storage capacity to meet increasing customer demands. Our storage architecture helps to ensure the safe, secure archiving of customers' data and to deliver the speed and performance required to enable customers to access and manage their clinical study data in real-time.

**Support.** We have a multi-national organization to support our applications worldwide. We also offer 24 by 7 support to our customers' investigator sites through multi-lingual help desks located in Edison, New Jersey, Sofia, Bulgaria and Tokyo, Japan.

Our application services represented 73.0%, 69.8% and 70.8% of our total revenues in 2009, 2008 and 2007 respectively.

### ***Professional Services***

In order to provide reliable, repeatable and cost-effective implementation and use of our application services, we have developed a standard methodology to deliver professional services to our customers. Our methodology leverages both the industry-specific expertise of our employees and the specific capabilities of our platform to simplify, streamline and expedite the Medidata Rave implementation process. This methodology also enables us to deliver a comprehensive set of supporting documents and work instructions to facilitate our customers' compliance with applicable regulatory requirements. Our professional services include:

- implementation services to meet customers' data requirements for various indications;
- workflow design to meet the needs of different study phases and global regulatory requirements; and
- guidance on best practices for using our application services.

We offer knowledge transfer services to enable our customers and partners to design, configure, implement and manage trials, and intuitive e-learning training courses for end users. We also offer a variety of additional training services through our training group, known as Medidata University, to facilitate the successful adoption of our application services throughout the customer's or partner's organization. We also provide professional services for Medidata Designer, to assist our customers to efficiently implement and reinforce best practices for protocol design.

Our professional services represented 27.0%, 30.2% and 29.2% of our total revenues in 2009, 2008 and 2007, respectively.

### ***Technology***

We have designed our technology to maximize ease of use, flexibility, data visibility and system scalability to handle high-volume, global trials. We deploy our solutions through the use of industry-standard web browsers and three tiered server architectures: a web server, a proprietary application server and a database server. End users can access our solutions through any web browser from anywhere in the world without downloading or installing any Medidata-specific software. In addition, our software has end-to-end support for unicode characters, required to deliver multi-lingual studies. Additionally, we utilize technologies such as firewalls, intrusion detection and encryption to ensure the privacy and security of our customers' data.

We developed our solutions on a broad base of technologies, including Java 2 Enterprise Edition, or J2EE, Oracle, Microsoft.NET, Microsoft SQL Server and Business Objects. By creating consistent data models that can accommodate the broad software-as-a-service requirements from multiple biopharma, medical device and CRO customers, we have been able to avoid customer-specific builds or other customizations to our core product, thereby streamlining development and maintenance. Furthermore, our interfaces are built on fully documented application programming interfaces, or APIs, which allow us to safely update customers' data in new versions of the system, and to develop additional interfaces to address new market opportunities. These APIs also allow us to import and export configurations and auxiliary data in both human-readable and XML formats. By including version control and the ability to dynamically integrate data without system interruption, we are better able to accommodate the industry-specific challenges facing clinical trial teams around protocol amendments and the need for incremental changes to study data collection and cleaning processes during a clinical trial.

## **Research and Development**

We believe that our future success will depend on our ability to continue to enhance and broaden our application services to meet the evolving needs of clinical trial sponsors and other entities engaged in clinical trials. As of December 31, 2009, we had 146 employees in research and development. Our research and development efforts are focused on developing new, complementary software solutions, as well as enhancing our existing software solutions.

When developing our technical solutions to manage clinical data, industry regulatory requirements also dictate that substantial documentation be created to demonstrate data integrity in the solution, known in the industry as a validation package. Our software development lifecycle practices include streamlined methodologies for generating and maintaining validation packages during the software release process. These methodologies include a validated path for upgrading existing installations and data. For Medidata Rave, with a major update occurring approximately once per year, the concurrency and robustness of validation packages provide our customers with an ability to stay on current technology, allowing us to minimize the number of legacy releases that require maintenance and support.

Our research and development department includes a product management team that works with both internal and customer experts to create new features and functionality, a technical documentation team, as well as product engineering and software quality assurance functions. We also have a dedicated research and development team building integration software and APIs on top of our platform. For example, our research and development team has integrated Medidata Rave with SAS Drug Development's data management, collaborative reporting and analysis solution. This integration provides our customers with immediate access to data collected and managed in Medidata Rave through the SAS Drug Development product, along with other data gathered in the research and development process. We incurred \$22.5 million, \$19.3 million and \$10.7 million in research and development expenses for the years ended December 31, 2009, 2008 and 2007, respectively.

## **Sales and Marketing**

We market and sell our application services through a direct sales force and through relationships with CROs and other strategic partners. Our marketing efforts focus on increasing awareness, consideration and preferences for our application services and professional services and generating qualified sales leads. As of December 31, 2009, we had 90 employees in sales and marketing.

Our sales force operates globally, including in North America, Europe and Asia. The team, which is organized by both region and focus area, also includes pre-sales product consultants and sales operations support. Sales through this direct channel currently represent the largest source of our total revenues.

Sponsors of clinical trials are increasingly outsourcing their clinical research activities in an attempt to control costs and expand capacity. Our CRO relationships help us position our software solutions as the core platform for their outsourced client trial management services. Through our *ASpire to Win* program, we partner with CROs to deliver the Medidata Rave clinical trial technology along with the CRO's project and data management expertise. We also train, certify and support our CRO and other clinical services partners on Medidata Rave which enables them to quickly and cost-effectively implement our technology in sponsors' studies. Our strategic clinical services partners include ARGEX Inc., Chiltern International Inc., CMIC Co., Ltd., Covance Inc., Eliassen Group, EPS International Co., Ltd., Global Research Services, LLC, ICON Clinical Research, L.P., INC Research, Inc., inVentiv Clinical Solutions, Kendle International Inc., LAXAI, Novella Clinical, Omnicare Inc., PRA International, Inc., Quintiles Transnational Corporation, Sumisho Computer Systems Corporation and United BioSource Corporation.

Our marketing strategy is to generate qualified sales leads, enhance the global recognition of our brand and products and establish Medidata as the premier provider of clinical trial solutions. Our principal marketing initiatives target key executives and decision makers within our existing and prospective customer base and

include sponsorship of, and participation in, industry events including user conferences, trade shows and webinars. We also advertise through online and print media, publish Medidata-authored articles in trade magazines and journals, and participate in cooperative marketing efforts with our CRO partners and other providers of complementary services or technology, including joint press announcements, joint trade show activities and joint seminars and webinars.

We have been able to obtain valuable insight into our customers' needs through the following specific customer initiatives:

- *Medidata Customer Advisory Board.* We sponsor an annual meeting of the Medidata Customer Advisory Board which provides our customers with an opportunity to learn about our strategies and plans and gives us useful feedback on our application services.
- *Medidata User Group.* Our customers sponsor annual meetings in various geographies that give them an opportunity to share best practices relating to Medidata Rave and provide feedback.
- *Medidata webinars.* We host periodic web-based seminars for current and prospective customers, which are typically focused on our products or current developments.
- *MyMedidata.com.* MyMedidata.com offers a global portal for our customers and partners and provides them with answers to frequently asked questions; on-line forums and polls where they can interact with our representatives and other members; and updates on Medidata-related events.

### *Customers*

We are committed to developing long-term, partnering relationships with our customers on a global basis and working closely with new customers to configure our systems to meet the unique needs of their trials. Our customers include leading pharmaceutical, biotechnology, medical device companies, academic institutions, clinical research organizations and other entities engaged in clinical trials. As of December 31, 2009, we had 173 customers, including 22 of the top 25 global pharmaceutical companies measured by revenue. Our representative customers by industry group include:

#### **Pharmaceutical**

Abbott Laboratories  
Astellas Pharma Inc.  
AstraZeneca PLC  
Baxter International, Inc.  
Bayer HealthCare AG  
Daiichi Sankyo Co., Ltd.  
F. Hoffmann–La Roche, Ltd.  
Johnson & Johnson  
H. Lundbeck A/S  
Orion Corporation  
Pfizer Inc.  
Shionogi & Co., Ltd.  
Takeda Pharmaceutical Corporation Ltd.

#### **Biotechnology**

Amgen Inc.  
Array BioPharma, Inc.  
Elan Pharmaceuticals Inc.  
Genzyme Corporation  
Gilead Sciences, Inc.  
Infinity Pharmaceuticals, Inc.  
Seattle Genetics, Inc.

#### **Medical Devices**

Boston Scientific Corporation  
DePuy International Ltd.  
Edwards Lifesciences Corporation

#### **CROs**

CMIC Co., Ltd.  
Covance Inc.  
EPS  
ICON Clinical Research, L.P.  
INC Research, Inc.  
Kendle International, Inc.  
PRA International, Inc.  
Quintiles Transnational Corporation  
Sumisho Computer Systems Corporation

#### **Institutions**

U.S. Department of the Interior, for the  
National Cancer Institute  
Northwestern University

Our five largest customers accounted for 46%, 46% and 48% of our revenues in 2009, 2008 and 2007, respectively. In 2009, AstraZeneca and Johnson & Johnson each accounted for approximately 10% of our total revenues. In 2008, AstraZeneca and Johnson & Johnson accounted for approximately 11% and 10% of our total revenues, respectively. For 2007, Amgen and Johnson & Johnson accounted for approximately 13% and 12% of our total revenues, respectively. No other customer accounted for 10% or more of our total revenues during any of these periods.

We sell our products and provide services globally. A summary of our domestic and international revenues and long-term assets is set forth in Note 2, “Summary of Significant Accounting Policies – Segment Information,” to our consolidated financial statements, which are included in Item 15 of this Annual Report on Form 10-K.

## **Competition**

The market for electronic data collection, data management and other clinical trial solutions is highly competitive and rapidly evolving. It is subject to changing technology, shifting customer needs, changes in laws and regulations, and frequent introductions of new products and services. In the EDC market, in addition to internally developed solutions, we compete with firms such as BioClinica, Datatrak International, Merge eClinical, OmniComm Systems, Oracle Clinical, Perceptive Informatics and Phase Forward Incorporated. In the clinical trial authoring tool market, we compete primarily with internally developed protocol tools, built on commercial software such as Microsoft Office and SharePoint solutions and XML authoring tools such as Arbortext, and document management systems such as EMC Corporation’s Documentum. In addition, we face competition at the clinical data product level from independent companies such as TTC LLC and ClearTrial, LLC.

We compete on the basis of several factors, including the following:

- ease of use of our products and rates of user adoption;
- product functionality and flexibility;
- speed and performance required to enable customers to access clinical trial data in real-time;
- product reliability and scalability;
- hosting security;
- regulatory compliance;
- financial stability;
- breadth and scope of commercial and technology partnerships;
- depth of expertise and quality of our professional services and customer support on a global basis; and
- sales and marketing capabilities.

Although some of our competitors and potential competitors have greater name recognition, longer operating histories and greater financial, technological and other resources than we do, we believe that we compete favorably with our competitors on the basis of these factors.

## **Government Regulation**

The use of our software applications, services and hosted solutions by customers engaged in clinical trials must be done in a manner that is compliant with a complex array of U.S. federal and state laws and regulations, including regulation by FDA, as well as regulations and guidance issued by foreign governments and international non-governmental organizations. Our applications have been designed to allow our customers to deploy them as part of a validated system compliant with applicable laws and regulations.

### *Regulation of Clinical Trials and Electronic Systems Used in Clinical Trials*

The conduct of clinical trials is subject to regulation and regulatory guidance associated with the approval of new drugs, biological products and medical devices imposed upon the clinical trial process by FDA, foreign governmental regulatory agencies and international non-governmental organizations, such as the International Conference on Harmonization and the World Health Organization.

The laws, regulations and guidance from various countries and regions are often, but not always, harmonized. In those areas which are not yet harmonized, conflicting or even contradictory requirements may exist. Further, the regulatory environment and requirements for clinical trials and drug/device approvals are undergoing rapid change in the United States, the European Union and in other regions. We continue to monitor regulatory developments and industry best practices in these areas and make changes as necessary to remain in compliance.

The use of our software products, services and hosted solutions by customers engaged in clinical trials must be done in a manner that is compliant with these laws, regulations and guidance. Failure to do so could, for example, have an adverse impact on a clinical trial sponsor's ability to obtain regulatory approval of new drugs, biological products or medical devices or even to continue a clinical trial.

The use of software during the clinical trial process must also adhere to the regulations and regulatory guidance known as Good Clinical Practices, or GCPs, other various codified practices such as the Consolidated Guidance for Industry from the International Conference on Harmonization Regarding Good Clinical Practices for Europe, Japan and the United States and other guidance documents. In addition to these regulations and regulatory guidance, FDA and other countries have developed regulations and regulatory guidance concerning electronic records and electronic signatures. In the United States, these regulations are interpreted for clinical trials in a guidance document titled U.S. FDA Computerized Systems Used in Clinical Investigations – Guidance for Industry. In general, regulatory guidance stipulates that computerized systems used to capture or manage clinical trial data must meet certain standards for attributability, accuracy, retrievability, traceability, inspectability, validity, security and dependability. If we or our customers violate the GCPs or other regulatory requirements, both parties run the risk that the violation will result in a warning letter from FDA, the suspension of the clinical trial, investigator disqualification, debarment, the rejection or withdrawal of a product marketing application, criminal prosecution or civil penalties, any of which could have a material adverse effect on our business, results of operations or financial condition.

#### *Regulation of Health Information*

Government regulation of the use and disclosure of patient privacy and data protection imposes a number of requirements. In the United States, regulations issued pursuant to the Health Insurance Portability and Accountability Act of 1996, or HIPAA, require certain “covered entities,” including facilities and providers which are involved in clinical trials, to comply with established standards regarding the privacy and security of protected health information and to use standardized code sets when conducting certain electronic transactions. The regulations also require “business associates” that provide services on behalf of the covered entity to follow the same standards. Although we are not a “covered entity” or a “business associate” and therefore technically are not subject to HIPAA regulations, many users of our products and services are directly regulated under HIPAA and our products cannot be utilized in a manner that is inconsistent with the users' HIPAA compliance requirements. In addition, to the extent we perform functions or activities on behalf of customers that are directly regulated by such medical privacy laws, we may be required to comply with a number of the same HIPAA requirements. The breach of such requirements on our part may result in liability to our customers and us. In addition to HIPAA, most states have enacted or are considering their own privacy and data protection laws. Such state laws, if more stringent than HIPAA requirements, are not preempted by the federal requirements and we must comply with them.

In addition to complying with the privacy laws of the United States, many foreign governments have data privacy protection laws that include additional protections for sensitive patient information, such as confidential medical records. Because we provide services in many of these countries, we must meet these requirements and must provide our services in a manner that supports our customers' compliance obligations.

## **Intellectual Property**

Our success and ability to compete are dependent on our ability to develop and maintain the proprietary aspects of our technology and operate without infringing the proprietary rights of others. We rely upon a combination of trademark, trade secret, copyright, patent and unfair competition laws, as well as license agreements and other contractual provisions, to protect our intellectual property and other proprietary rights. In addition, we attempt to protect our intellectual property and proprietary information by requiring our employees and consultants to enter into confidentiality, non-competition and assignment of inventions agreements. We have registered trademarks and service marks in the United States and abroad, and applications for the registration of additional trademarks and service marks. Our principal trademarks are “Medidata,” “Medidata CRO Contractor,” “Medidata Designer,” “Medidata Rave” and “ASPire to Win.” We have filed trademark applications for “iMedidata” and “Medidata Grants Manager.” We also hold several domain names, including the domain name “mdsol.com.” Although we do not rely heavily on patent protection, we hold one patent and have five patent applications outstanding with the U.S. Patent and Trademark Office as well as certain corresponding foreign patent applications.

The legal protections described above afford only limited protection for our technology. Due to rapid technological change, we believe that factors such as the technological and creative skills of our personnel, new product and service developments and enhancements to existing products and services are more important than the various legal protections of our technology to establishing and maintaining a technology leadership position.

On June 6, 2007, we entered into a license and settlement agreement with a third party in connection with allegations that our Rave Remote product infringed a U.S. patent claimed to be owned by the third party. Under the license and settlement agreement, we agreed to make a lump-sum payment to the third party of \$2.2 million to settle the claim and obtained a royalty-bearing license to utilize the patent at issue with respect to Rave Remote and comparable systems and services. Rave Remote is an older product that allows data to be collected and cleaned on personal computers that are not permanently connected to the Internet and is not material to our business. In June 2009, the third party initiated a lawsuit against us in the United States District Court for the District of Maryland claiming breach of contract. The complaint includes allegations that we have failed to pay unspecified royalties relating to sales of Medidata products. We filed an answer in July 2009, denying all material allegations and asserting affirmative defenses. We also asserted counterclaims for a declaratory judgment that no royalties are owed with respect to sales of our products, as well as a counterclaim for the third party’s breach of the license and settlement agreement. The parties are now engaged in the discovery process. Although we will continue to defend these claims vigorously, and we believe that we have substantial and meritorious defenses to the claims, neither the outcome of the litigation nor the amount and range of potential damages or exposure associated with the litigation can be assessed at this time. In addition, two of our ASPire to Win partners have requested us to indemnify them in connection with patent infringement lawsuits filed by the same third party. We agreed to defend and indemnify one of these partners with respect to the allegations, claims, and defenses relating to its use of Medidata Rave. In February 2010, we reached an agreement in principle with this partner, which if consummated would result in us paying \$0.5 million to fully settle this indemnification obligation. To date, no claims have been asserted against the second partner with respect to its use of Medidata’s products.

We have licensed in the past, and expect that we may license in the future, certain of our proprietary rights, such as trademarks, technology or copyrighted material, to third parties. We generally provide in our customer agreements that we will indemnify our customers against third-party infringement claims relating to our technology provided to the customer.

## **Employees**

As of December 31, 2009, we had a total of 574 employees, of which 221 were employed at our headquarters and additional locations in New York, New York, 240 at other locations in the United States, 68 in the United Kingdom and 45 in Japan. As of December 31, 2009, we had 225 employees in customer services and support, 19 employees in data operations, 146 employees in research and development, 90 employees in sales

and marketing and 94 employees in administration and executive management. We also retain additional outside contractors from time to time to supplement our services and research and development staff on an as-needed basis. As of December 31, 2009, we had 117 independent contractors, the majority of which have been engaged in connection with help desk and customer service functions. None of our employees are covered by a collective bargaining agreement. We consider our relationships with our employees to be good.

### **Available Information**

We were organized as a New York corporation in June 1999 and reincorporated in the State of Delaware in May 2000. Our principal executive offices are located at 79 Fifth Avenue, 8th Floor, New York, New York 10003, and our telephone number is (212) 918-1800. Our website is located at [www.mdsol.com](http://www.mdsol.com). Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as well as reports relating to our securities filed by others pursuant to Section 16 of such act, are available through the investor relations page of our internet website free of charge as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or SEC. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is [www.sec.gov](http://www.sec.gov).

### **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 below are those which we believe are the material risks we face. Any of the risk factors described below 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.

#### ***Risks Related to Our Business***

***We have incurred significant operating losses in the past and may not remain profitable in the future.***

We began providing EDC services in 2001. We have recognized operating losses in each year from 1999 through 2008, and our cumulative net operating loss since 1999 totaled approximately \$77.5 million at December 31, 2009. We may make significant future expenditures related to the development and expansion of our business. In addition, following the completion of our initial public offering, or IPO, in June 2009, we continue to incur significant legal, accounting and other expenses that we did not incur as a private company. As a result of these increased expenditures, we will have to generate and sustain increased revenue to achieve future profitability. While our revenues have grown in recent periods, this growth may not be sufficient to offset the increase in our expenses and may not be sustainable. We may incur significant losses in the future for a number of reasons, including the other risks described in this Annual Report on Form 10-K. Accordingly, we cannot give you any assurance regarding our future profitability. Further, if we incur operating losses or experience unanticipated working capital requirements in the future, we may be required to seek additional financing. Such financing may not be available to us when needed, or available on acceptable terms, and may result in dilution to our existing stockholders.

***Our quarterly operating results fluctuate and may continue to fluctuate in the future, and if we fail to meet the expectations of analysts or investors, our stock price and the value of your investment could decline substantially.***

Our quarterly and annual revenues and operating results have varied in the past and may vary significantly in the future depending on factors such as:

- budgeting cycles of our customers;
- the length of our sales cycle;

- increased competition;
- our ability to develop innovative products;
- the timing of new product releases by us or our competitors;
- market acceptance of our products;
- changes in our and our competitors' pricing policies;
- the financial condition of our current and potential customers;
- changes in the regulatory environment;
- changes in operating expenses and personnel changes;
- our ability to hire and retain qualified personnel;
- the effect of potential acquisitions and consequent integration;
- changes in our business strategy; and
- general economic factors, including factors relating to disruptions in the world credit and equity markets and the related impact on our customers' access to capital.

In addition, a significant portion of our operating expense is relatively fixed and planned expenditures are based in part on expectations regarding future revenues. Accordingly, unexpected revenue shortfalls may decrease our gross margins and could cause significant changes in our operating results from quarter to quarter. As a result, in future quarters our operating results could fall below the expectations of securities analysts or investors, in which event our stock price would likely decrease.

***We derive a significant percentage of our revenues from a concentrated group of customers and the loss of one or more major customers could materially and adversely affect our business, results of operations or financial condition.***

Our top five customers accounted for approximately 46%, 46% and 48% of our revenues in 2009, 2008 and 2007, respectively. In 2009, AstraZeneca and Johnson & Johnson each accounted for approximately 10% of our total revenues. In 2008, AstraZeneca and Johnson & Johnson accounted for approximately 11% and 10% of our total revenues, respectively. For 2007, Amgen and Johnson & Johnson accounted for approximately 13% and 12% of our total revenues, respectively. No other customer accounted for 10% or more of our total revenues during any of these periods. The loss of any of our major customers could have a material adverse effect on our results of operations and financial condition. We may not be able to maintain our customer relationships, and our customers may delay performance under or fail to renew their agreements with us, which could adversely affect our business, results of operations or financial condition. Any reduction in the amount of revenues that we derive from these customers, without an offsetting increase in new sales to other customers, could have a material adverse effect on our operating results. A significant change in the liquidity or financial position of any of these customers could also have a material adverse effect on the collectability of our accounts receivable, our liquidity and our future operating results.

***If our customers cancel their contracts or terminate or delay their clinical trials, we may lose or delay revenues and our business may be harmed.***

Certain of our customer contracts are subject to cancellation by our customers at any time with limited notice. Customers engaged in clinical trials may terminate or delay a clinical trial for various reasons, including the failure of the tested product to satisfy safety or efficacy requirements, unexpected or undesired clinical results, decisions to de-emphasize a particular product or forego a particular clinical trial, decisions to downsize clinical development programs, insufficient patient enrollment or investigator recruitment and production problems resulting in shortages of required clinical supplies. In the case of our hosted solutions, any termination or delay in the clinical trials would likely result in a consequential delay or termination in those customers'

service contracts. We have experienced terminations and delays of our customer service contracts in the past (although no such past terminations have had a significant impact on our results of operations) and we expect to experience additional terminations and delays in the future. The termination of a single-study arrangement could result in decreased revenues and the delay of our customers' clinical trials could result in delayed professional services revenues, which could materially harm our business.

***If we fail to maintain effective internal controls over our financial reporting, the accuracy and timing of our financial reporting may be adversely affected.***

In connection with the audit of our consolidated financial statements for the years ended December 31, 2007 and 2006, we, together with our independent registered public accounting firm, identified a number of material weaknesses in our internal controls over financial reporting, as defined in rules established by the American Institute of Certified Public Accountants, or AICPA. A "material weakness" is a deficiency, or a combination of deficiencies, in internal controls over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements would not be prevented or detected on a timely basis.

The material weaknesses were attributable to deficiencies in our revenue recognition related to ineffective review of contract terms and their impact on timing of revenue recognition, ineffective cut-off procedures, extensive use of manual procedures and inadequate staffing, as well as ineffective expense cut-off procedures, which resulted in the recording of audit adjustments. Our remediation efforts commenced in 2008 and continued into 2009. While we have certain areas where documentation can be improved and additional control procedures will be implemented in 2010 in connection with our preparation for complying with Section 404 of the Sarbanes-Oxley Act of 2002, no material weaknesses in our control environment were identified as of December 31, 2009. See "Controls and Procedures" in Item 9A of our Annual Report on Form 10-K for further discussion.

Additional material weaknesses in our internal controls over financial reporting may be identified in the future. If we fail to remediate any new identified material weaknesses, or fail to implement required new or improved controls, or encounter difficulties in their implementation, it could harm our operating results, cause us to fail to meet our SEC reporting obligations on a timely basis, or result in inaccurate financial reporting or material misstatements in our annual or interim financial statements. It could also prohibit us from complying with the provisions of Section 404 of the Sarbanes-Oxley Act of 2002, which will apply to us in connection with the filing of our Annual Report on Form 10-K for 2010 and requires annual management assessments of the effectiveness of our internal controls over financial reporting as well as a report by our independent registered public accounting firm regarding the effectiveness of such internal controls. If we are unable to comply with Section 404 or otherwise are unable to produce timely and accurate financial statements, our business reputation and stock price may be adversely affected and we may be unable to maintain compliance with the listing requirements of The NASDAQ Global Market.

***Restatements of our consolidated financial statements or other accounting-related problems could harm our business or otherwise have an adverse effect on us.***

Subsequent to the issuance of our 2008 consolidated financial statements, we restated our consolidated financial statements for the years ended December 31, 2005, 2006, 2007 and 2008. This restatement was the result of previously identified revenue recognition control deficiencies that constituted material weaknesses. Any future restatements or other accounting-related problems could harm our business, financial condition, results of operations and cash flows, cause us to fail to meet our SEC reporting obligations on a timely basis, result in inaccurate financial reporting or material misstatements in our annual or interim financial statements, or adversely affect our stock price and we may be unable to maintain compliance with the listing requirements of The NASDAQ Global Market. Any of these matters may harm our business reputation and contribute to negative publicity and difficulties in attracting and retaining key customers, management personnel and employees.

***Our sales cycles for multi-study arrangements can take in excess of nine months from initial contact to contract execution, and require significant employee time and financial resources with no assurances that we will realize sales or revenues.***

The sales cycle for multi-study arrangements can take in excess of nine months from initial customer contact to contract execution. During this period, we may expend substantial time, effort and financial resources without realizing any revenues with respect to the potential sale. In addition, it may be difficult for us to rapidly increase our revenues through additional sales in any period, as license revenues and, when applicable, related services revenues from new customers are recognized over the applicable license term, typically one to five years.

***Substantially all of our computer and communications hardware is located at a single facility, the failure of which would harm our business and results of operations.***

Substantially all of the computer hardware necessary to operate our hosting service, which is used by the majority of our customers, is located at our hosting facility in Houston, Texas. Our systems and operations could suffer damage or interruption from human error, fire, flood, power loss, telecommunications failure, break-ins, terrorist attacks, acts of war and similar events, and we do not presently have hosting systems in multiple locations. The occurrence of a natural disaster, an act of terrorism or other unanticipated problems at our hosting facility could result in lengthy interruptions in our service. Although we maintain back-up facilities and disaster recovery services in the event of a system failure, these may be insufficient or fail. Any failure or breach of security of our systems could damage our reputation and cause us to lose customers, which would harm our business and results of operations. Our business may be harmed if our customers and potential customers believe our service is unreliable.

***Defects or errors in our software could harm our reputation, result in significant cost to us and impair our ability to market our solutions.***

The software applications underlying our hosted products and services, including Medidata Rave, are inherently complex and may contain defects or errors, some of which may be material. Errors may result from our own technology or from the interface of our software with legacy systems and data which we did not develop. The risk of errors is particularly significant when a new product is first introduced or when new versions or enhancements of existing products are released.

We have from time to time found defects in our software. Although these past defects have not resulted in any litigation against us to date, we have invested significant capital, technical, managerial and other resources to investigate and correct these past defects and we have needed to divert these resources from other development efforts. In addition, material performance problems or defects in our software may arise in the future. Material defects in our software could result in a reduction in sales, delay in market acceptance of our software or credits or refunds to our customers. In addition, such defects may lead to the loss of existing customers and difficulty in attracting new customers, diversion of development resources or harm to our reputation.

Correction of defects or errors could prove to be impossible or impractical. The costs incurred in correcting any defects or errors or in responding to resulting claims or liability may be substantial and could adversely affect our operating results.

***If we are not able to reliably meet our data storage and management requirements, or if we experience any failure or interruption in the delivery of our services over the Internet, customer satisfaction and our reputation could be harmed and customer contracts may be terminated.***

As part of our current business model, we store and manage hundreds of terabytes of data for our customers, resulting in substantial information technology infrastructure and ongoing technological challenges, which we expect to continue to increase over time. If we do not reliably meet these data storage and management requirements, or if we experience any failure or interruption in the delivery of our services over the Internet,

customer satisfaction and our reputation could be harmed and lead to reduced revenues and increased expenses. Our hosting services are subject to service level agreements and, in the event that we fail to meet guaranteed service or performance levels, we could be subject to customer credits or termination of these customer contracts. If the cost of meeting these data storage and management requirements increases, our results of operations could be harmed.

***In March 2008 we acquired Fast Track, a provider of clinical trial planning solutions, and we may expand our business further through new acquisitions in the future. Any such acquisitions could disrupt our business, harm our financial condition and dilute current stockholders' ownership interests in our company.***

We intend to pursue potential acquisitions of, and investments in, businesses, technologies, or products complementary to our business and periodically engage in discussions regarding such possible acquisitions. For example, in March 2008, we acquired Fast Track.

Acquisitions, including the Fast Track acquisition, involve numerous risks, including some or all of the following:

- difficulties in identifying and acquiring complementary products, technologies or businesses;
- substantial cash expenditures;
- incurrence of debt and contingent liabilities, some of which we may not identify at the time of acquisition;
- difficulties in assimilating the operations and personnel of the acquired companies;
- diversion of management's attention away from other business concerns;
- risk associated with entering markets in which we have limited or no direct experience;
- potential loss of key employees, customers and strategic alliances from either our current business or the target company's business; and
- delays in customer purchases due to uncertainty and the inability to maintain relationships with customers of the acquired businesses.

If we fail to properly evaluate acquisitions or investments, we may not achieve the anticipated benefits of such acquisitions, we may incur costs in excess of what we anticipate, and management resources and attention may be diverted from other necessary or valuable activities. An acquisition may not result in short-term or long-term benefits to us. The failure to evaluate and execute acquisitions or investments successfully or otherwise adequately address these risks could materially harm our business and financial results. We may incorrectly judge the value or worth of an acquired company or business. In addition, our future success will depend in part on our ability to manage the growth anticipated with these acquisitions.

Furthermore, the development or expansion of our business or any acquired business or companies may require a substantial capital investment by us. We may not have these necessary funds or they might not be available to us on acceptable terms or at all. We may also seek to raise funds for an acquisition by issuing equity securities or convertible debt, as a result of which our existing stockholders may be diluted or the market price of our stock may be adversely affected.

***Our revenues derived from international operations are subject to risk, including risks relating to unfavorable economic, political, legal, regulatory, tax, labor and trade conditions in the foreign countries in which we operate, that could have a material adverse effect on our results of operations.***

Approximately 34%, 32% and 33% of our revenues in each of the years ended December 31, 2009, 2008 and 2007, respectively, were derived from international operations. We expect that international customers will continue to account for a substantial percentage of our revenues.

International operations are subject to inherent risks. These risks include:

- the economic conditions in these various foreign countries and their trading partners, including conditions resulting from disruptions in the world credit and equity markets;
- political instability;
- longer payment cycles;
- greater difficulty in accounts receivable collection and enforcement of agreements;
- compliance with foreign laws;
- changes in regulatory requirements;
- fewer legal protections for intellectual property and contract rights;
- tariffs or other trade barriers;
- difficulties in obtaining export licenses;
- staffing and managing foreign operations;
- exposure to currency exchange and interest rate fluctuations;
- transportation delays;
- potentially adverse tax consequences; and
- recently proposed changes to taxation of offshore earnings.

Moreover, with regard to our international operations, we frequently enter into transactions in currencies other than the U.S. dollar and we incur operating expenses in currencies other than the U.S. dollar. For the years ended December 31, 2009, 2008 and 2007, approximately 8.5%, 7.7% and 5.8%, respectively, of our sales were denominated in foreign currencies. This creates a foreign currency exchange risk for us that could have a material adverse effect on our business, results of operations and financial condition.

***We rely on third parties for our help desk support and technology partnerships, and our business may suffer if these relationships do not continue.***

We currently outsource our help desk support functions, which involve important direct interactions with users of our products. In the event that our vendor becomes unable or unwilling to provide these services to us, we are not equipped to provide the necessary range of help desk support and service functions to our customers. We also work with companies such as Integrated Clinical Systems, Inc. and Business Objects SA (SAP AG) to allow our EDC platform to interface with their products. If we are unable to develop and maintain effective relationships with appropriate technology partners, if companies adopt more restrictive policies with respect to, or impose unfavorable terms and conditions on, access to their products, we may not be able to continue to provide our customers with certain platform infrastructure, which could reduce our sales and adversely affect our business, operating results and financial condition.

***We have been, and may continue to be, subject to claims that we or our technologies infringe upon the intellectual property or other proprietary rights of a third party. Any such claims may require us to incur significant costs, to enter into royalty or licensing agreements or to develop or license substitute technology.***

We have been, and may in the future be, subject to claims that our technologies infringe upon the intellectual property or other proprietary rights of a third party. For instance, in June 2007, we entered into a license and settlement agreement with a third party in connection with allegations that our Rave Remote product infringed a U.S. patent claimed to be owned by the third party. Under the license and settlement agreement, we agreed to make a lump-sum payment to the third party of \$2.2 million to settle the claim and obtained a royalty-

bearing license to utilize the patent at issue with respect to Rave Remote and comparable systems and services. In June 2009, the third party initiated a lawsuit against us in the United States District Court for the District of Maryland claiming breach of contract. The complaint includes allegations that we have failed to pay unspecified royalties relating to sales of Medidata products. We filed an answer in July 2009, denying all material allegations and asserting affirmative defenses. We also asserted counterclaims for a declaratory judgment that no royalties are owed with respect to sales of our products, as well as a counterclaim for the third party's breach of the license and settlement agreement. The parties are now engaged in the discovery process. Although we will continue to defend these claims vigorously, neither the outcome of the litigation nor the amount and range of potential damages or exposure associated with the litigation can be assessed at this time. In addition, two of our ASPire to Win partners have requested us to indemnify them pursuant to their partner agreements with us in connection with patent infringement lawsuits filed by the same third party. We agreed to defend and indemnify one of these partners with respect to the allegations, claims, and defenses relating to its use of Medidata Rave. In February 2010, we reached an agreement in principle with this partner, which if consummated would result in us paying \$0.5 million to fully settle this indemnification obligation. To date, no claims have been asserted against the second partner with respect to its use of Medidata's products. We generally provide in our customer agreements that we will indemnify our customers against third-party infringement claims relating to our technology provided to the customer, which could obligate us to fund significant amounts.

The vendors which provide us with technology that we incorporate in our product offerings also could become subject to various infringement claims. The technologies used in our product offerings may infringe patents held by others or they may do so in the future. Any future claim of infringement could cause us to incur substantial costs defending against the claim, even if the claim is without merit, and could distract our management from our business. Moreover, any settlement or adverse judgment resulting from the claim could require us to pay substantial amounts or obtain a license to continue to use the technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology. Any required licenses may not be available to us on acceptable terms, if at all. If we do not obtain any required licenses, we could encounter delays in product introductions if we attempt to design around the technology at issue or attempt to find another provider of suitable alternative technology to permit us to continue offering the applicable software solution. Infringement claims asserted against us or against our customers or other third parties that we are required or otherwise agree to indemnify may have a material adverse effect on our business, results of operations or financial condition.

***We may be unable to adequately enforce or defend our ownership and use of our intellectual property and other proprietary rights.***

Our success is heavily dependent upon our intellectual property and other proprietary rights. We rely upon a combination of trademark, trade secret, copyright, patent and unfair competition laws, as well as license and access agreements and other contractual provisions, to protect our intellectual property and other proprietary rights. In addition, we attempt to protect our intellectual property and proprietary information by requiring certain of our employees and consultants to enter into confidentiality, non-competition and assignment of inventions agreements. The steps we take to protect these rights may not be adequate to prevent misappropriation of our technology by third parties or may not be adequate under the laws of some foreign countries, which may not protect our intellectual property rights to the same extent as do the laws of the United States.

Our attempts to protect our intellectual property may be challenged by others or invalidated through administrative process or litigation, and agreement terms that address non-competition are difficult to enforce in many jurisdictions and may not be enforceable in any particular case. Moreover, the degree of future protection of our intellectual property and proprietary rights is uncertain for products that are currently in the early stages of development because we cannot predict which of these products will ultimately reach the commercial market or whether the commercial versions of these products will incorporate proprietary technologies. In addition, there remains the possibility that others will "reverse engineer" our products in order to determine their method of operation and introduce competing products or that others will develop competing technology independently.

If we resort to legal proceedings to enforce our intellectual property rights or to determine the validity and scope of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. The failure to adequately protect our intellectual property and other proprietary rights may have a material adverse effect on our business, results of operations or financial condition.

***We could incur substantial costs resulting from product liability claims relating to our products or services or our customers' use of our products or services.***

Any failure or errors in a customer's clinical trial caused or allegedly caused by our products or services could result in a claim for substantial damages against us by our customers or the clinical trial participants, regardless of our responsibility for the failure. Although we are generally entitled to indemnification under our customer contracts against claims brought against us by third parties arising out of our customers' use of our products, we might find ourselves entangled in lawsuits against us that, even if unsuccessful, may divert our resources and energy and adversely affect our business. Further, in the event we seek indemnification from a customer, a court may not enforce our indemnification right if the customer challenges it or the customer may not be able to fund any amounts for indemnification owed to us. In addition, our existing general liability insurance coverage may not continue to be available on reasonable terms or may not be available in amounts sufficient to cover one or more large claims, or the insurer may disclaim coverage as to any future claim.

***Our failure to properly protect any customer data, including personal medical information we possess or are deemed to possess in connection with the conduct of clinical trials could subject us to significant liability.***

Our customers use our software solutions to collect, manage and report information in connection with the conduct of clinical trials. This information may be considered our customers' proprietary information or personal medical information of the clinical trial participants or patients. Regulation related to the use and disclosure of personal medical information continues to expand in scope and complexity. Increased focus on individuals' rights to confidentiality of their personal information, including personal medical information, could lead to an increase of existing and future legislative or regulatory initiatives giving direct legal remedies to individuals, including rights to damages, against entities deemed responsible for not adequately securing such personal information. In addition, courts may look to regulatory standards in identifying or applying a common law theory of liability, whether or not that law affords a private right of action. Since we receive and process our customers' data or personal information of clinical trial participants and patients from customers utilizing our hosted solutions, there is a risk that we could be liable if there were a breach of any obligation to a protected person under contract, standard of practice or regulatory requirement. If we fail to protect our customers' data or personal information that is in our possession or deemed to be in our possession properly, we could be subjected to significant liability and our reputation would be harmed.

***Current and future litigation against us, which may arise in the ordinary course of our business, could be costly and time consuming to defend.***

We are from time to time subject to legal proceedings and claims that arise in the ordinary course of business, such as claims brought by our customers in connection with commercial disputes and employment claims made by our current or former employees. For example, we are currently party to a lawsuit in Belgium brought by a former employee seeking approximately \$1.4 million. The court rendered its decision in January 2009, which awarded approximately \$0.1 million to the plaintiff. The plaintiff filed a notice of appeal in September 2009, which remains pending. We will continue to vigorously defend this claim until it is resolved. In addition, in June 2007, we entered into a license and settlement agreement with a third party in connection with allegations that our Rave Remote product infringed a U.S. patent claimed to be owned by the third party. Under the license and settlement agreement, we agreed to make a lump-sum payment to the third party of \$2.2 million to settle the claim and obtained a royalty-bearing license to utilize the patent at issue with respect to Rave Remote and comparable systems and services. In June 2009, the third party initiated a lawsuit against us in the

United States District Court for the District of Maryland claiming breach of contract. The complaint includes allegations that we have failed to pay unspecified royalties relating to sales of Medidata products. We filed an answer in July 2009, denying all material allegations and asserting affirmative defenses. We also asserted counterclaims for a declaratory judgment that no royalties are owed with respect to sales of our products, as well as a counterclaim for the third party's breach of the license and settlement agreement. The parties are now engaged in the discovery process. Although we will continue to defend the claims vigorously, neither the outcome of the litigation nor the amount and range of potential damages or exposure associated with the litigation can be assessed at this time.

Litigation may result in substantial costs and may divert management's attention and resources, which may seriously harm our business, overall financial condition and operating results. Insurance may not cover such claims, may not be sufficient for one or more such claims and may not continue to be available on terms acceptable to us. A claim brought against us that is uninsured or underinsured could result in unanticipated costs, thereby reducing our operating results and leading analysts or potential investors to reduce their expectations of our performance, resulting in a reduction in the trading price of our stock.

***The determination of the U.S. government to award us a contract has been challenged at the U.S. Government Accountability Office, or GAO, by an unsuccessful bidder. If we are not successful in the reevaluation, the contract may be terminated.***

The laws and regulations governing the procurement of goods and services by the U.S. government provide procedures by which unsuccessful bidders may challenge the award of a government contract. During the third quarter of 2009, the U.S. Department of Interior on behalf of the U.S. National Institute of Health's National Cancer Institute, or NCI, awarded us a government contract to make the Medidata Rave EDC management and reporting system available for use throughout the NCI Clinical Research Enterprise. The NCI contract award was the subject of a bid protest before the GAO. In December 2009, we learned that the GAO had upheld the protest by the unsuccessful bidder citing procedural errors in government's evaluation process. We have been advised of the government's intent to reevaluate the proposals consistent with GAO's recommendation. If we are not selected for award after this re-evaluation, the government might terminate for convenience the work requirements in our contract that have not yet been performed. At this time, we are continuing to perform under the contract and are not able to determine whether or not the protest decision by the GAO will have any effect upon the ultimate disposition of the contract award.

### ***Risks Related to Our Industry***

***We face significant competition, which could cause us to lose business or achieve lower margins.***

The market for our clinical trial solutions is intensely competitive and characterized by rapidly changing technologies, evolving industry standards and frequent new product and service introductions and enhancements that may render existing products and services obsolete. Accordingly, our market share and margins are subject to sudden declines. Some of our competitors have longer operating histories, greater financial, technical, marketing and other resources and greater name recognition than we do. These competitors may respond more quickly than we can to new and emerging technologies and changing customer and regulatory requirements, or devote greater resources to the development, promotion and sale of their solutions. We anticipate that new competitors will enter our market in the future, as barriers to entry are relatively low in our industry. Increased competition is likely to result in pricing pressures, which could negatively impact our sales, gross margins or market share. In addition, current and potential competitors have established, and may in the future establish, relationships with vendors of complementary products, technologies or services to increase the penetration of their products in the marketplace. Even if our products and services are more effective than the products or service offerings of our competitors, current or potential customers might accept competitive products and services in lieu of purchasing our software products, services and hosted solutions. Our failure to compete effectively could materially adversely affect our business, financial condition or results of operations.

***We depend entirely on the clinical trial market, and a downturn in this market could cause our revenues to decrease.***

Our business depends entirely on the clinical trials conducted or sponsored by pharmaceutical, biotechnology and medical device companies, CROs and other entities. Our revenues may decline as a result of conditions affecting these industries, including general economic downturns, increased consolidation, decreased competition or fewer products under development. Other developments that may affect these industries and harm our operating results include product liability claims, changes in government regulation, changes in governmental price controls or third-party reimbursement practices and changes in medical practices. Disruptions in the world credit and equity markets and the current global recession may also result in a global downturn in spending on research and development and clinical trials and may impact our customers' access to capital and their ability to pay for our solutions. Any decrease in research and development expenditures or in the size, scope or frequency of clinical trials could materially adversely affect our business, results of operations or financial condition.

***Extensive governmental regulation of the clinical trial process and our products and services could require significant compliance costs and have a material adverse effect on the demand for our solutions.***

The clinical trial process is subject to extensive and strict regulation by the U.S. Food and Drug Administration and other regulatory authorities worldwide. Our software products, services and hosted solutions are also subject to state, federal and foreign regulations. Demand for our solutions is largely a function of such government regulation, which is generally increasing at the state and federal levels in the United States and elsewhere, and subject to change at any time. Changes in the level of regulation, including a relaxation in regulatory requirements or the introduction of simplified drug approval procedures, could have a material adverse effect on the demand for our solutions. For example, proposals to place caps on drug prices could limit the profitability of existing or planned drug development programs, making investment in new drugs and therapies less attractive to pharmaceutical companies. Similarly, the requirements in the United States, the European Union and elsewhere to create a detailed registry of all clinical trials could have an impact on customers' willingness to perform certain clinical studies. Likewise, a proposal for government-funded universal health care could subject expenditures for health care to governmental budget constraints and limits on spending. In addition, the uncertainty surrounding the possible adoption and impact on health care of any Good Clinical Practice reforms could cause our customers to delay planned research and development until some of these uncertainties are resolved. Until the new legislative agenda is finalized and enacted, it is not possible to determine the impact of any such changes.

Modifying our software products and services to comply with changes in regulations or regulatory guidance could require us to incur substantial costs. Further, changing regulatory requirements may render our solutions obsolete or make new products or services more costly or time consuming than we currently anticipate. Failure by us, our customers, or our competitors to comply with applicable regulations could result in increased regulatory scrutiny and enforcement. If our solutions fail to comply with government regulations or guidelines, we could incur significant liability or be forced to cease offering our applicable products or services. If our solutions fail to allow our customers to comply with applicable regulations or guidelines, customers may be unwilling to use our solutions and any such non-compliance could result in the termination of or additional costs arising from contracts with our customers.

***Consolidation among our customers could cause us to lose customers, decrease the market for our products and result in a reduction of our revenues.***

Our customer base could decline because of industry consolidation, and we may not be able to expand sales of our products and services to new customers. Consolidation in the pharmaceutical, biotechnology and medical device industries and among CROs has accelerated in recent years, and we expect this trend to continue. In addition, new companies or organizations that result from such consolidation may decide that our products and

services are no longer needed because of their own internal processes or the use of alternative systems. As these entities consolidate, competition to provide products and services to industry participants will become more intense and the importance of establishing relationships with large industry participants will become greater. These industry participants may try to use their market power to negotiate price reductions for our products and services. Also, if consolidation of larger current customers occurs, the combined organization may represent a larger percentage of business for us and, as a result, we are likely to rely more significantly on the combined organization's revenues to continue to achieve growth.

### ***Risks Related to Our Common Stock***

#### ***The price of our common stock may fluctuate significantly, and you could lose all or part of your investment.***

Shares of our common stock were sold in our IPO in June 2009 at a price of \$14.00 per share, and our common stock has subsequently traded as high as \$19.73 and as low as \$14.53 through December 31, 2009. However, an active, liquid and orderly market for our common stock on The NASDAQ Global Market or otherwise may not be sustained, which could depress the trading price of our common stock. The trading price of our common stock may be subject to wide fluctuations in response to various factors, some of which are beyond our control, including

- our quarterly or annual earnings or those of other companies in our industry;
- announcements by us or our competitors of significant contracts or acquisitions;
- changes in accounting standards, policies, guidance, interpretations or principles;
- general economic and stock market conditions, including disruptions in the world credit and equity markets;
- the failure of securities analysts to cover our common stock or changes in financial estimates by analysts;
- future sales of our common stock; and
- the other factors described in these "Risk Factors."

In recent years, the stock market in general, and the market for Internet-related companies in particular, has experienced extreme price and volume fluctuations. This volatility has had a significant impact on the market price of securities issued by many companies, including companies in our industry. The price of our common stock could fluctuate based upon factors that have little to do with our performance, and these fluctuations could materially reduce our stock price.

In the past, some companies, including companies in our industry, have had volatile market prices for their securities and have had securities class action suits filed against them. The filing of a lawsuit against us, regardless of the outcome, could have a material adverse effect on our business, financial condition and results of operations, as it could result in substantial legal costs and a diversion of our management's attention and resources.

#### ***Our actual operating results may differ significantly from guidance provided by our management.***

From time to time, we may release guidance in our quarterly earnings releases, quarterly earnings conference call, or otherwise, regarding our future performance that represent our management's estimates as of the date of release. This guidance, which includes forward-looking statements, is based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections and, accordingly, no such person expresses any opinion or any other form of assurance with respect thereto.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We generally state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to represent that actual results could not fall outside of the suggested ranges. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by analysts.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results will vary from our guidance and the variations may be material. In light of the foregoing, investors are urged not to rely upon, or otherwise consider, our guidance in making an investment decision in respect of our common stock. Any failure to successfully implement our operating strategy could result in the actual operating results being different from our guidance, and such differences may be adverse and material.

***Provisions of Delaware law and our organizational documents may discourage takeovers and business combinations that our stockholders may consider in their best interests, which could negatively affect our stock price.***

Provisions of Delaware law and our fourth amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change in control of our company or deterring tender offers for our common stock that other stockholders may consider in their best interests.

Our fourth amended and restated certificate of incorporation authorizes us to issue up to 5,000,000 shares of preferred stock in one or more different series with terms to be fixed by our board of directors. Stockholder approval is not necessary to issue preferred stock in this manner. Issuance of these shares of preferred stock could have the effect of making it more difficult and more expensive for a person or group to acquire control of us, and could effectively be used as an anti-takeover device. Currently there are no shares of our preferred stock issued or outstanding.

Our bylaws provide for an advance notice procedure for stockholders to nominate director candidates for election or to bring business before an annual meeting of stockholders, including proposed nominations of persons for election to our board of directors, and require that special meetings of stockholders be called only by our chairman of the board, chief executive officer, president or the board pursuant to a resolution adopted by a majority of the board.

The anti-takeover provisions of Delaware law and provisions in our organizational documents may prevent our stockholders from receiving the benefit from any premium to the market price of our common stock offered by a bidder in a takeover context. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if they are viewed as discouraging takeover attempts in the future.

***As a public company, we incur significant administrative workload and expenses.***

As a public company with common stock listed on The NASDAQ Global Market, we must comply with various laws, regulations and requirements, including certain provisions of the Sarbanes-Oxley Act of 2002, as well as rules implemented by the SEC and The NASDAQ Stock Market, which we were not required to comply with prior to becoming a public company. Complying with these statutes, regulations and requirements, including our public company reporting requirements, continues to occupy a significant amount of the time of our board of directors and management and involves significant accounting, legal and other expenses. We have

hired, and anticipate that we will continue to hire, additional accounting personnel to handle these responsibilities, which will increase our operating costs. Furthermore, these laws, regulations and requirements could make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

New laws and regulations as well as changes to existing laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002 and rules adopted by the SEC and by The NASDAQ Stock Market, would likely result in increased costs to us as we respond to their requirements. We are investing resources to comply with evolving laws and regulations, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities.

***We will be exposed to risks relating to evaluations of internal controls required by Section 404 of the Sarbanes-Oxley Act of 2002.***

We are in the process of evaluating our internal controls systems to allow management to report on, and our independent registered public accounting firm to audit, our internal controls over financial reporting. We will be performing the system and process evaluation and testing (and any necessary remediation) required to comply with the management certification and auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002. We will be required to comply with Section 404 in connection with the filing of our Annual Report on Form 10-K for our fiscal year ending December 31, 2010. However, we cannot be certain as to the timing of completion of our evaluation, testing and remediation actions or the impact of the same on our operations.

Furthermore, upon completion of this process, we may identify control deficiencies of varying degrees of severity under applicable SEC and Public Company Accounting Oversight Board rules and regulations that remain unremediated. As a public company, we are required to report, among other things, control deficiencies that constitute a "material weakness" or changes in internal controls that do, or are reasonably likely to, materially affect internal controls over financial reporting. See "Risk Factors—Risks Related to Our Business—If we fail to maintain effective internal controls over our financial reporting, the accuracy and timing of our financial reporting may be adversely affected." If we fail to implement the requirements of Section 404 in a timely manner, we might be subject to sanctions or investigation by regulatory authorities such as the SEC or The NASDAQ Stock Market. Additionally, failure to comply with Section 404 or the report by us of a material weakness may cause investors to lose confidence in our financial statements and our stock price may be adversely affected. If we fail to remedy any material weakness, our financial statements may be inaccurate, we may face restricted access to the capital markets, and our stock price may decline.

***We do not currently intend to pay dividends on our common stock and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.***

We have never declared or paid any cash dividends on our common stock and do not currently intend to do so for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. In addition, covenants in our outstanding senior secured credit facility restrict our ability to pay dividends. Therefore, you are not likely to receive any dividends on your investment in our common stock for the foreseeable future and the success of an investment in shares of our common stock will depend upon any future appreciation in its value. Shares of our common stock may depreciate in value or may not appreciate in value.

**Item 1B. Unresolved Staff Comments**

Not applicable.

**Item 2. Properties**

Our corporate headquarters and other material leased real property as of December 31, 2009 are shown in the following table. We do not own any real property.

<u>Location</u>	<u>Use</u>	<u>Size</u>	<u>Expiration of Lease</u>
New York, New York	Corporate headquarters	20,000 square feet	September 2013
New York, New York	Office space	19,000 square feet	March 2012
Edison, New Jersey(1)	Office space	13,700 square feet	March 2010
Conshohocken, Pennsylvania	Office space	8,742 square feet	June 2011
Ross, California	Office space	3,138 square feet	December 2010
Houston, Texas	Data center	7,778 square feet	July 2013
Uxbridge, United Kingdom	Office space	8,500 square feet	December 2017
Tokyo, Japan	Office space	5,336 square feet	April 2011

(1) We are currently in the process of negotiating a lease renewal and expansion for this location and are expecting to execute an amended lease agreement prior to the current lease expiration on March 31, 2010.

We believe these facilities and additional or alternative space available to us will be adequate to meet our needs for the foreseeable future.

**Item 3. Legal Proceedings**

See Note 14, “Commitments and Contingencies—Legal Matters,” to the consolidated financial statements included in this Annual Report on Form 10-K for a description of current legal proceedings.

**Item 4. [Removed and Reserved]**

## PART II

### Item 5. Market for Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

#### *Stock Market Information*

Our common stock has been listed on The NASDAQ Global Market under the symbol “MDSO” since the completion of our IPO in June 2009. Before then, there was no public market for our common stock. The following table sets forth, for the periods indicated, the high and low sales prices of our common stock as reported by The NASDAQ Global Market:

	<u>High</u>	<u>Low</u>
Second Quarter 2009 (beginning June 25, 2009) .....	\$19.00	\$16.00
Third Quarter 2009 .....	19.73	14.53
Fourth Quarter 2009 .....	17.97	14.76

#### *Holdings*

On March 8, 2010, we had approximately 195 holders of record of our common stock. The number of record holders was determined from the records of our transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of our common stock is American Stock Transfer & Trust Company, 6201 15<sup>th</sup> Avenue, Brooklyn, New York 11219.

#### *Dividends*

We paid accumulated accrued dividends on our convertible redeemable preferred stock of approximately \$2.3 million in cash immediately prior to the conversion of all our redeemable preferred stock into shares of our common stock upon completion of the IPO in June 2009. Except for these dividends, we have never declared or paid any cash dividends on our capital stock. 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. Any future determination to pay dividends on our common stock will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and other factors that our board of directors considers relevant.

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

From time to time, we granted restricted stock awards to our employees pursuant to the terms of our 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 December 31, 2009 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
October 1 – October 31, 2009 . . . . .	—	\$ —	—	—
November 1 – November 30, 2009 . . . . .	—	—	—	—
December 1 – December 31, 2009 . . . . .	4,544	15.05	—	—
Total . . . . .	4,544	\$15.05	—	—

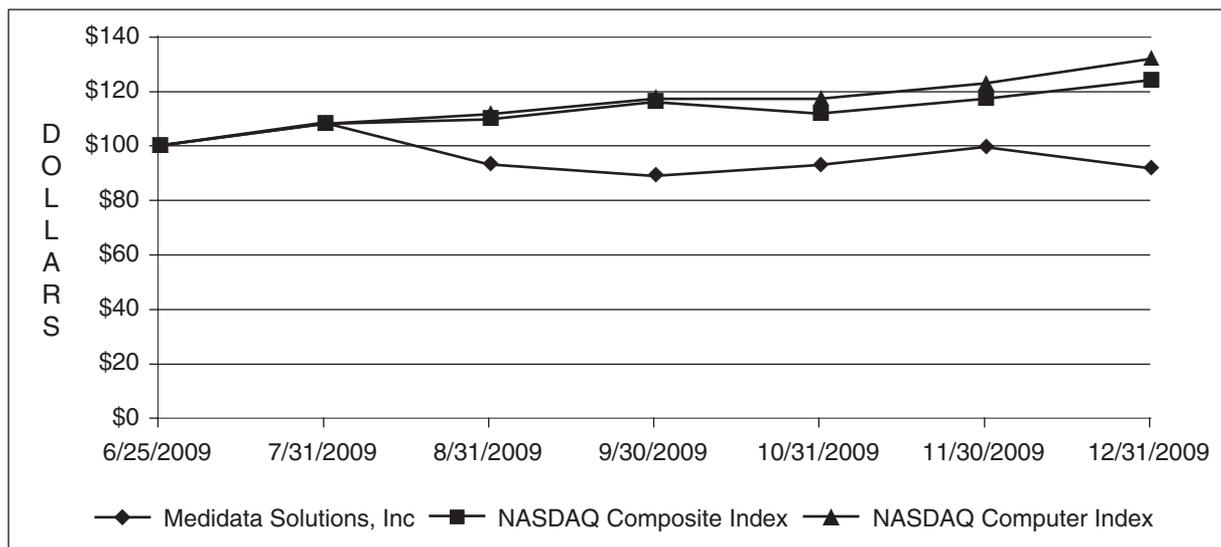
(1) Represents the number of shares acquired as payment by employees of applicable statutory minimum withholding taxes owed upon vesting of restricted stock granted under our 2009 Plan.

**Use of Proceeds from our IPO**

In July 2009, we used a portion of the net proceeds from our IPO in June 2009 to prepay the entire outstanding indebtedness of the term loan under our credit facility. The total payoff amount of \$14.7 million included the outstanding principal balance of \$14.3 million, as well as accrued interest and termination fees of \$0.4 million. A portion of the remaining net proceeds from our IPO has been invested into high quality marketable securities. We plan to use these remaining net proceeds for working capital and other general corporate purposes.

**Stock Performance Graph**

The following graph sets forth the total cumulative stockholder return on our common stock since our common stock began trading on the NASDAQ Global Market on June 25, 2009 as compared to the NASDAQ Composite Index and the NASDAQ Computer Index over the same period. This graph assumes a \$100 investment in our common stock at \$17.00, which is the closing market price per share on the first day of trading. The comparison in the graphs below are based upon historical stock performance and not indicative of, nor intended to forecast, future performance of our common stock.



	6/25/2009	7/31/2009	8/31/2009	9/30/2009	10/31/2009	11/30/2009	12/31/2009
Medidata Solutions, Inc. . . . .	\$100.00	\$108.53	\$ 93.29	\$ 89.12	\$ 92.94	\$ 99.71	\$ 91.88
NASDAQ Composite Index . . . . .	100.00	108.14	109.81	116.01	111.78	117.22	124.03
NASDAQ Computer Index . . . . .	100.00	108.18	111.64	117.42	117.22	122.90	132.01

## Item 6. Selected Financial Data

Our selected consolidated financial information presented for each of the years ended December 31, 2009, 2008 and 2007 and as of December 31, 2009 and 2008 was derived from our audited consolidated financial statements, which are included in Item 15 of this Annual Report on Form 10-K. Our selected financial information presented for each of the years ended December 31, 2006 and 2005 and as of December 31, 2007, 2006 and 2005 was derived from our audited consolidated financial statements, which are not included in this Annual Report on Form 10-K.

The information contained in this table should also be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and the consolidated financial statements and accompanying notes thereto included elsewhere in this Annual Report on Form 10-K.

### Consolidated Statement of Operations Data

	Year ended December 31,				
	2009	2008(1)	2007	2006	2005
	(in thousands, except per share amounts)				
Revenues:					
Application services .....	\$102,541	\$ 73,820	\$ 44,592	\$ 25,406	\$ 13,069
Professional services .....	37,859	31,904	18,391	10,851	3,643
Total revenues .....	140,400	105,724	62,983	36,257	16,712
Costs of revenues:(2)					
Application services(3) .....	23,752	19,647	13,170	7,288	2,059
Professional services .....	26,219	30,801	33,035	20,462	14,459
Total cost of revenues .....	49,971	50,448	46,205	27,750	16,518
Gross profit .....	90,429	55,276	16,778	8,507	194
Operating costs and expenses:(2)					
Research and development(4) .....	22,534	19,340	10,716	5,905	4,104
Sales and marketing(5) .....	27,452	24,190	15,484	12,768	7,599
General and administrative .....	31,666	27,474	13,361	8,335	4,574
Total operating costs and expenses .....	81,652	71,004	39,561	27,008	16,277
Operating income (loss) .....	8,777	(15,728)	(22,783)	(18,501)	(16,083)
Interest and other expense, net .....	(1,736)	(1,624)	(364)	(195)	(38)
Income (loss) before provision for income taxes .....	7,041	(17,352)	(23,147)	(18,696)	(16,121)
Provision for income taxes(6) .....	1,859	920	515	306	110
Net income (loss) .....	<u>\$ 5,182</u>	<u>\$ (18,272)</u>	<u>\$ (23,662)</u>	<u>\$ (19,002)</u>	<u>\$ (16,231)</u>
Earnings (loss) per share:					
Basic .....	<u>\$ 0.33</u>	<u>\$ (2.76)</u>	<u>\$ (3.78)</u>	<u>\$ (3.10)</u>	<u>\$ (2.73)</u>
Diluted .....	<u>\$ 0.25</u>	<u>\$ (2.76)</u>	<u>\$ (3.78)</u>	<u>\$ (3.10)</u>	<u>\$ (2.73)</u>
Weighted average common shares outstanding:(7)					
Basic .....	14,864	6,794	6,385	6,297	6,135
Diluted .....	20,736	6,794	6,385	6,297	6,135

Stock-based compensation expense and depreciation and amortization of intangible assets included in cost of revenues and operating costs and expenses are as follows:

	Year Ended December 31,				
	2009	2008(1)	2007	2006	2005
	(in thousands)				
<u>Stock-based compensation expense(2)</u>					
Cost of revenues	\$ 398	\$ 291	\$ 172	\$ 108	\$178
Research and development	522	503	183	89	27
Sales and marketing	1,165	640	448	304	69
General and administrative	2,645	1,763	491	218	118
Total stock-based compensation	<u>\$ 4,730</u>	<u>\$3,197</u>	<u>\$1,294</u>	<u>\$ 719</u>	<u>\$392</u>
<u>Depreciation</u>					
Cost of revenues	\$ 6,833	\$5,941	\$3,605	\$1,237	\$563
Research and development	809	650	463	289	136
Sales and marketing	494	383	243	202	91
General and administrative	618	461	305	228	104
Total depreciation	<u>8,754</u>	<u>7,435</u>	<u>4,616</u>	<u>1,956</u>	<u>894</u>
<u>Amortization of intangible assets(4)</u>					
Cost of revenues	1,682	1,191	—	—	—
Sales and marketing	144	79	—	—	—
Total amortization of intangible assets	<u>1,826</u>	<u>1,270</u>	<u>—</u>	<u>—</u>	<u>—</u>
Total depreciation and amortization of intangible assets	<u>\$10,580</u>	<u>\$8,705</u>	<u>\$4,616</u>	<u>\$1,956</u>	<u>\$894</u>

### Consolidated Balance Sheet Data

	As of December 31,				
	2009	2008	2007	2006	2005
	(in thousands)				
Cash and cash equivalents(7)	\$ 39,449	\$ 9,784	\$ 7,746	\$ 7,016	\$ 6,450
Total marketable securities(7)	49,638	—	—	—	—
Total current assets	101,652	44,565	29,556	19,073	13,352
Restricted cash	532	545	387	305	305
Total assets	143,409	75,190	44,479	25,121	16,540
Total deferred revenue	97,710	101,621	75,635	42,337	24,617
Total capital lease obligations	3,516	7,060	8,527	2,281	507
Total long-term debt(8)	—	14,366	10,781	3,514	4,000
Convertible redeemable preferred stock(9)	—	13,245	12,747	12,249	11,751
Convertible preferred stock(9)	—	24	24	24	24
Stockholders' equity (deficit)(7)	20,232	(76,400)	(77,888)	(49,189)	(30,638)

- (1) On March 17, 2008, we acquired Fast Track, a provider of clinical trial planning solutions. Our results of operations for 2008 and for subsequent periods include the operations of Fast Track since the date of acquisition.
- (2) Prior to January 1, 2006, we accounted for our stock-based compensation plans using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, or APB No. 25, and related interpretations. Under APB No. 25, compensation expense of fixed stock options is based on the difference, if any, on the date of the grant between the fair value of our stock and the exercise price of the option. Compensation expense is recognized on a straight-line basis over the requisite service period.

On January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards, or SFAS, No. 123(R), *Share-Based Payment*, (currently under Accounting Standards Codification, or ASC, 718, *Compensation—Stock Compensation*), requiring us to recognize expense related to the fair value of our stock-based compensation awards. We elected the modified prospective transition method as permitted by SFAS No. 123(R). Under this transition method, stock-based compensation expense for the fiscal year ended December 31, 2006, includes compensation expense for all stock based compensation awards granted prior to, but not yet vested, as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123, *Accounting for Stock-Based Compensation*, and compensation expense for all stock based compensation awards granted subsequent to January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123(R).

- (3) In 2006, it was claimed by a third party that certain applications offered to our customers potentially infringed on intellectual property rights held by that third party. As a result of negotiations with the third party, we entered into a license and settlement agreement in June 2007, pursuant to which we licensed the intellectual property held by the third party for use in our future sales to customers and settled all past infringement claims. We paid a settlement amount of \$2.2 million to the third party in 2007. Such amount was recorded in cost of revenues under application services for the year ended December 31, 2006. See Note 14, “Commitments and Contingencies—Legal Matters,” to our consolidated financial statements included in Item 15 of this Annual Report on Form 10-K for more information regarding legal matters.
- (4) We determined that technological feasibility had not been established for certain in-process research and development projects acquired from Fast Track. These projects were written off, resulting in \$0.7 million of additional research and development expenses included in the consolidated statement of operations data for the year ended December 31, 2008. This write-off is not included in amortization of intangible assets in the consolidated statement of operations.
- (5) In 2006, a former employee made a claim seeking compensation of approximately \$1.6 million in relation to a wrongful dismissal lawsuit. Subsequently, the claim was reduced to approximately \$1.4 million as of December 31, 2008. We recorded approximately \$0.6 million in sales and marketing expenses during the year ended December 31, 2006 related to this matter. The court rendered its decision in January 2009, which awarded approximately \$0.1 million to the plaintiff. The plaintiff filed a notice of appeal in September 2009, which remains pending. We will continue to vigorously defend this claim until it is resolved.
- (6) For the years ended December 31, 2005 to 2009, we did not realize an income tax benefit for available net operating loss carryforwards. As of December 31, 2009, we had approximately \$56.2 million of federal net operating loss carryforwards available to offset future taxable income expiring from 2012 through 2028. We also had net operating loss carryforwards for state and local income tax purposes in aggregate of approximately \$191.0 million available to offset future state and local taxable income expiring from 2010 to 2028. See Note 12, “Income Taxes,” to our consolidated financial statements included in Item 15 of this Annual Report on Form 10-K for more information regarding our income taxes.
- (7) In June 2009, we completed an IPO, issuing 6.3 million shares of common stock at a public offering price of \$14.00 per share. As a result of the offering, we received net proceeds of \$75.2 million, after deducting underwriting discounts and commissions of \$6.2 million and offering expenses of \$6.8 million. Subsequently, a portion of such proceeds has been invested into high quality marketable securities. In addition, the underwriters exercised in full their over-allotment option to purchase an additional 0.9 million shares of common stock from certain selling stockholders. We did not receive any proceeds from the sale of shares by the selling stockholders.
- (8) In July 2009, we used a portion of our net proceeds from the IPO to prepay the entire outstanding indebtedness of the term loan under the senior secured credit facility. The total payoff amount of \$14.7 million included the outstanding principal balance of \$14.3 million, as well as accrued interest and termination fees of \$0.4 million. Also in July 2009, we executed a standby letter of credit under our credit agreement in connection with the office lease of approximately \$0.2 million, which resulted in a reduction of the available amount under the revolving line of credit. As of December 31, 2009, approximately \$9.8 million of the revolving line of credit under our senior secured credit facility was still available for future borrowings.
- (9) As a result of the IPO, all outstanding convertible preferred stock was automatically converted into 9.0 million shares of common stock. In addition, we paid out all accumulated accrued dividends of \$2.3 million to preferred stockholders at conversion.

## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

*The following is a discussion and analysis of our financial condition and results of operations. You should read this discussion and analysis together with our consolidated financial statements and accompanying notes to consolidated financial statements included in Item 15 of this Annual Report on Form 10-K. This discussion contains forward-looking statements that are based on management's current expectations, estimates and projections about our business and operations. Our actual results may differ from those currently anticipated and expressed in such forward-looking statements as a result of a number of factors, including those described in "Risk Factors" under Item 1A and elsewhere in this Annual Report on Form 10-K.*

### **Overview**

We are a leading global provider of hosted clinical development solutions that enhance the efficiency of our customers' clinical development processes and optimize their research and development investments. Our solutions allow our customers to achieve clinical results more efficiently and effectively by streamlining the design, planning and management of key aspects of the clinical development process, including protocol development, CRO negotiation, investigator contracting, the capture and management of clinical trial data and the analysis and reporting of that data on a worldwide basis.

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 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, enhancing our products and services and growing our indirect channel. In order to achieve and sustain our growth objectives, we have 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 product functionality and platform; 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 pre-determined number of studies. We also offer our application services on a single-study basis that allows customers to use our solution for a limited number of studies or to evaluate it prior to committing to multi-study arrangements. We invest heavily in training our Medidata Rave customers, their investigators and other third parties to configure clinical trials independently. We believe this knowledge transfer accelerates customer adoption of our solutions.

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

Our customer base has grown from 50 at January 1, 2007 to 173 at December 31, 2009. 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 number of sales generated through our CRO relationships. Our customer retention rate was 93.2%, 87.0% and 92.0% in 2009, 2008 and 2007, 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 accounted for 0.5%, 2.9% and 1.0% of total prior year revenues in 2009, 2008 and 2007, respectively. 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. 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. Historically, we have generated 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. Revenues generated from customers located in Europe represented approximately 21%, 21% and 20% of total revenues in 2009, 2008 and 2007, respectively. Revenues generated from customers in Asia represented approximately 12%, 10% and 13% of total revenues in 2009, 2008 and 2007, respectively. We expect sales from 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.

Our backlog is primarily associated with application services and represents the total future contract value of outstanding, multi-study and single-study arrangements, billed and unbilled, at a point in time. Thus, our backlog includes deferred revenue. Revenue generated in any given period is a function of revenue recognized from the beginning of period backlog, contract renewals, and new customer contracts. For this reason, backlog at the beginning of any period is not necessarily indicative of long-term future performance. We monitor as an annual metric the amount of revenues expected to be recognized from backlog over the current fiscal year, or full year backlog. As of January 1, 2010, we had full year backlog of approximately \$132 million. Our presentation of backlog may differ from other companies in our industry.

We consider the global adoption of EDC solutions 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 products 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.

### **Acquisition of Fast Track**

On March 17, 2008, we acquired Fast Track, a provider of clinical trial planning solutions. With this acquisition, we extended our ability to serve customers throughout the clinical research process with solutions that improve efficiencies in protocol development and trial planning, contracting and negotiation. We paid total consideration of approximately \$18.1 million, which consisted of the issuance of approximately 864 thousand shares of common stock in exchange for all Fast Track's existing preferred stock and common stock as well as approximately 26 thousand shares of common stock reserved for the exercise of outstanding warrants and vested employee stock options.

The results of operations or other discussions below for the year ended December 31, 2007 do not give effect to the impact of this acquisition. Our results of operations for 2008 and for subsequent periods include the operations of Fast Track since the date of acquisition.

### **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 we acquired from Fast Track. 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 for both multi-study arrangements, which grant customers the right to manage up to a predetermined number of clinical trials for a term generally ranging from three to five years, as well as single-study arrangements that allow customers to use application services for an individual study 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 and multi-study arrangements represent the majority of our application services revenues.

Our professional services provide our customers with reliable, repeatable and cost-effective implementation and training in the use of our application services. Professional services revenues have represented a significant portion of overall revenues to date. We expect professional services revenues to decline as a percentage of total revenues as our customers and partners become more adept at the management and configuration of 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 outside service provider costs, data center and networking expenses and allocated overhead. We allocate overhead such as depreciation expense, rent and utilities to all departments based on relative headcount. As such, a portion of general overhead expenses is reflected in cost of revenues. The costs associated with providing professional services are recognized as such costs are incurred and are significantly higher as a percentage of revenue than the costs associated with delivering our application services due to the labor costs associated with providing professional services. 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 remain relatively constant.

**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. We expect sales and marketing expenses to increase in absolute dollars. Over the long term, we believe that sales and marketing expenses will decline slightly as a percentage of total revenues.

**General and Administrative.** General and administrative expenses consist primarily of personnel and related expenses for executive, legal, quality assurance, finance and human resources, including salaries, benefits, bonuses and stock-based compensation, professional fees, insurance premiums, allocated overhead and other corporate expenses, including certain one-time costs in anticipation of becoming a public company. During 2008, we strengthened our management and corporate infrastructure, particularly in our finance department, and implemented financial reporting, compliance and other infrastructure associated with being a public company. On an ongoing basis, we expect general and administrative expenses to increase 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.

### **Income Tax Expense**

Prior to 2009, income tax expense primarily consisted of foreign income taxes imposed on our foreign subsidiaries in the United Kingdom and Japan. We have U.S. federal and state net operating loss carryforwards available to offset future taxable income which do not fully expire until 2028. We do not realize an income tax benefit for the majority of our net operating loss carryforwards and other domestic net deferred tax assets as we have yet to determine that it is more likely than not that our future taxable income will be sufficient to utilize these tax benefits. Moreover, in 2009, due to the cumulative impact of our IPO in June 2009, coupled with our secondary offering in December 2009, an ownership change as defined by Section 382 of the Internal Revenue Code, or Section 382, occurred in early December 2009. As a result, utilization of our federal net operating loss carryforwards are subject to an annual limitation under Section 382. This limitation was not imposed until the ownership change occurred in December 2009 and therefore was applied on a prorated basis in 2009 for taxable income generated subsequent to the ownership change. Due to this Section 382 limitation, as well as the temporary suspension of net operating loss carryforward utilization in the State of California and income taxes incurred in other state and local jurisdictions, we incurred domestic income tax expense in 2009. We expect our income tax expense to increase in absolute dollars and as a percentage of our operating income as we become more profitable domestically and our international operations continue to grow. See Note 12, "Income Taxes," to our consolidated financial statements included in Item 15 of this Annual Report on Form 10-K for more information regarding our income taxes.

### **Critical Accounting Policies**

Our 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 include the following:

#### ***Revenue Recognition***

We derive our revenues from the sale of application services and the rendering of professional services. We recognize revenues when all of the following conditions are satisfied:

- persuasive evidence of an arrangement exists;
- service has been delivered to the customer;
- amount of the fees to be paid by the customer is fixed or determinable; and
- collection of the fees is reasonably assured or probable.

#### ***Application Services***

We typically enter into multi-study and single-study arrangements that include the sale of software licenses that provide our customers the "right to use" our software, as well as hosting and other support services, to be provided over a specified term. We recognize revenues ratably over the term of the arrangement, beginning with the commencement of the arrangement term, which correlates with the activation of the hosting services, assuming all other revenue recognition criteria are met. The term of the arrangement includes optional renewal periods if such renewal periods are likely to be exercised.

### ***Professional Services***

We also provide a range of professional services that our customers have the ability to utilize on an as-needed basis. These services generally include training, implementation, interface creation, trial configuration, data testing, reporting, procedure documentation and other customer-specific services. Professional services do not result in significant alterations to our underlying software.

In certain situations, when professional services are sold separate and apart from application services, they are recognized as services are rendered.

### ***Combined Arrangements***

Our professional services are typically sold together with application services as a component of a single-study or multi-study arrangement. We account for arrangements that include both application services and professional services as a combined single unit of accounting and the related revenues are recognized ratably beginning with the commencement of the arrangement term, assuming all other remaining revenue recognition criteria are met.

Management's estimate of fair value for professional services is used to derive a reasonable approximation for presenting application services and professional services separately in our consolidated financial statements.

### ***Deferred Revenue***

Deferred revenue consists of billings or payments received in advance of revenue recognition and is recognized as the revenue recognition criteria are met. Amounts that have been invoiced are initially recorded in accounts receivable and deferred revenue. We invoice our customers in accordance with the terms of the underlying contract, usually in installments in advance of the related service period. Accordingly, the deferred revenue balance does not represent the total contract value of outstanding arrangements. Payment terms are net 30 to 45 days. Deferred revenue that will be recognized during the subsequent 12-month period is recorded as current deferred revenue and the remaining portion as non-current deferred revenue.

In some instances, customers elect to renew their application services arrangements prior to the original termination date of the arrangement. The renewed application services agreement provides support for in-process clinical trials, and includes the "right to use" the software for initial clinical studies. As such, the unrecognized portion of the deferred revenue associated with the initial arrangement is aggregated with the consideration received upon renewal and recognized as revenues over the renewed term of the application services arrangements.

### ***Stock-Based Compensation***

We currently follow 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 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.

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.

The use of different assumptions in the Black-Scholes pricing model 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.

Prior to the completion of our IPO, we were not a publicly traded company and we had limited historical information on the price of our stock as well as employees' stock option exercise behavior. As a result, we could not rely on historical experience alone to develop assumptions for the expected stock price volatility and the expected life of options. As such, our expected stock price volatility was estimated with reference to a peer group of companies. Subsequent to the completion of our IPO, we continue to 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 will increase the weight of our own stock price volatility within the weighted average over time as sufficient historical experience of our stock price is established.

We estimate the expected life of options based on the likely date of exercise as opposed to the actual life of the options. We consider internal studies of historical experience and projected exercise behavior to determine such estimate. The risk-free interest rate is based on the United States Treasury yield curve with a maturity tied to the expected life of the option. We have not and do not expect to pay dividends on our common stock.

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

We recorded stock-based compensation of \$4.7 million, \$3.2 million and \$1.3 million during 2009, 2008 and 2007, respectively. In future periods, stock-based compensation expense is expected to increase as a result of our existing unrecognized stock-based compensation and as we issue additional equity-based awards to continue to attract and retain employees and non-employee directors. As of December 31, 2009 and 2008, we had \$12.5 million and \$7.6 million, respectively, of unrecognized stock-based compensation costs related to all non-vested stock-based compensation awards granted under our 2000 Stock Option Plan and 2009 Long-Term Incentive Plan. The unrecognized compensation cost is expected to be recognized over an average period of 1.57 years as of December 31, 2009 and 1.43 years as of December 31, 2008.

***Significant Factors, Assumptions and Methodologies Used in Determining the Fair Value of our Capital Stock prior to our IPO***

Prior to the completion of our IPO in June 2009, Financial Strategies Consulting Group, LLC, or FSCG, an unrelated third-party valuation firm, performed valuations of our common stock in order to assist our board of directors in determining the fair value of our common stock. These contemporaneous valuation reports valued our common stock as of December 31, 2005, February 28, 2006, September 30, 2006, December 31, 2006, April 30, 2007, December 31, 2007, and at the end of each fiscal quarter beginning in 2008 until our IPO in June 2009. In addition, a retrospective valuation report was performed to value our common stock as of September 30, 2007, given the material change in value between the valuations on April 30, 2007 and December 31, 2007.

Market-comparable and income approaches were used to estimate our aggregate enterprise value at each valuation date. The market-comparable approach estimates the fair market value of the company by applying market multiples of publicly-traded firms in the same or similar lines of business to the results and projected results of the company being valued. When choosing the comparable companies used for the market-comparable approach, we included companies providing products and services in the EDC market. The list of comparable companies remained largely unchanged throughout the valuation process. Under the income approach, the fair value is equal to the present value of estimated future cash flows that could potentially be removed from the

company without impairing future operations and profitability. The estimated future cash flows and the terminal value, or the value of the company at the end of the future estimation period, are discounted to their present value at a discount rate which would provide a sufficient return to a potential investor, reflecting the risk of achieving those cash flows.

We prepared financial forecasts for each valuation report date used in the computation of the enterprise value for both the market-comparable approach and the income approach. The financial forecasts were based on long-term revenue growth assumptions, and expense targets over time, expressed as a percentage of revenue that reflected our past experience and future expectations, as well as evolving estimates of industry growth. These forecasts also contemplated the achievement of certain milestones such as key customer sales, customer renewals, product development and the hiring of key personnel. We considered the risk associated with achieving these forecasts as one company specific factor in selecting the appropriate cost of capital rates, which ranged from 24% at the beginning of 2008 to 17% at the end of March 2009.

We also applied an illiquidity discount under both the income and market-comparable valuation approaches, given that the lack of public information and the illiquidity of shares held by private company shareholders typically results in lower valuations for privately held companies relative to comparable public companies. This factor ranged from 24% at the beginning of 2008 to 14% at the end of March 2009.

The average of the values derived under the market-comparable approach and the income approach resulted in an initial estimated value under four potential scenarios (IPO, sale, private company and liquidation). We applied the probability weighted expected return method, which is outlined in the AICPA Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, to the valuations of each of the four potential scenarios in order to derive the per share value of our common stock at various points in time.

In the IPO valuation scenario, the enterprise value was based on an estimated IPO value discounted to the present value taking into consideration both the risk and timing of the IPO. This scenario assumed that all of our outstanding preferred stock would automatically convert into common stock, and that related accrued dividends would be paid out in cash upon IPO completion.

In the sale scenario, we utilized both the income and market-comparable approaches, with the enterprise value based on the sale of a controlling interest in a private company, adjusted for liquidation preferences associated with our preferred stock.

In the private company scenario, the enterprise value was estimated using the market-comparable and income approaches, adjusted for liquidation preferences associated with our preferred stock, as well as the illiquidity inherent in private company ownership.

In the liquidation scenario, the enterprise value is estimated assuming a liquidation of assets, net of liability settlement.

During 2008, the volume of IPO issuance decreased significantly compared with prior periods due in part to the overall decline in the global equity markets. As a result, we reduced the probability of completing our IPO from 70% to 80% at the beginning of the period, to 50% to 60% at the end of the period. Concurrently, we increased the probability of a sale from 15% to 20% at the beginning of the period, after a reduction to 10% to 15% in March of 2008, to 25% to 30% at the end of the period. Similarly, we increased the probability of remaining a private company from 5% to 10% at the beginning of the period, to 15% to 20% at the end of the period. For purposes of making the estimates with respect to a potential IPO and sale, we assumed the time period to such event at the beginning of 2008 was three to six months and at the end of 2008 was one to three months.

During the first three months of 2009, we maintained the probability of completing our IPO at 50% to 60% as weakness in the global equity markets continued. As a result of the volatility in the global equity markets, we

increased the probability of remaining a private company to 20% to 25%, fully offset by the decrease of the probability of a sale to 20% to 25%. In addition, we reduced the assumed timing of a potential IPO and sale to one month or less.

These estimates were made in the context of providing for adequate stock-based compensation expense recognition. There was inherent uncertainty in our assumptions and estimates, and if we had made different assumptions and estimates than those described above, the amount of our stock-based compensation expense, net income (loss) and basic and diluted earnings (loss) per share amounts could have been materially different.

The valuation as of December 31, 2007 resulted in an estimated fair value per common share of \$21.55. By March 31, 2008, the estimated fair value per common share was \$19.23, reflecting a more conservative long-term revenue growth expectation, decreases in comparable company valuations, and an increase in the probability of remaining private relative to a sale. In addition, we reduced the risk-adjusted discount rate due to more conservative revenue expectations, which we believed reduced the risk of achieving such expectations.

The valuation as of June 30, 2008 resulted in an estimated fair value per common share of \$19.75. The increase was attributable to a revised expectation of lower capital expenses, resulting in greater cash flow over the valuation period, offset by a reduction in the probability of completing an IPO and a corresponding increase in the probability of a potential sale.

The valuation as of September 30, 2008 resulted in an estimated fair value per common share of \$20.58. The increase was primarily attributable to increases in key comparable company valuations, offset by a reduction in the probability of completing an IPO and a corresponding increase in the probability of a potential sale.

The valuation at December 31, 2008 resulted in an estimated fair value per common share of \$15.38. The decline was primarily attributed to an overall decline in the value of comparable companies as equity markets sharply weakened and, to a lesser extent, refinement of our long-term revenue and expense assumptions. Several positive factors partially offset the impact of these declines. We reduced the risk-adjusted discount rate slightly to reflect greater certainty regarding our ability to achieve the revised financial plan. We reduced the illiquidity discount to reflect our expectations for a shorter timeframe to a potential IPO or sale. Finally, our revenue growth exceeded that of our peer group.

The valuation at March 31, 2009 resulted in an estimated fair value per common share of \$15.70. The increase from December 31, 2008 was primarily attributable to an improvement in the value of key comparable companies. In addition the reduction of illiquidity discount from 18% to 14% resulting from moving closer to the IPO event also contributed to this increase.

In granting the options prior to our IPO, our board of directors intended to set the exercise prices based on the per share fair market value of our common stock underlying those options on the date of grant. In the absence of a public trading market prior to our IPO, our board of directors relied upon the most recent FSCG valuation report of our common stock prior to the grant date and used its judgment to determine the fair value per share on dates of grant that were between the formal FSCG valuation report dates. In applying this judgment, we considered whether there were any significant events or changes in our business that had a material impact on the fair value of our common stock between the formal FSCG valuation dates. If no events had arisen, we concluded that the price per common share between valuation dates increased or decreased on a ratable basis. We then utilized this value as a basis for recognizing stock-based compensation expense in our consolidated financial statements in accordance with ASC 718.

### ***Goodwill and Intangibles***

Goodwill, which consists of the excess of the purchase price over the fair value of identifiable net assets of businesses acquired, is evaluated for impairment using a two-step process that is performed at least annually on October 1 of each year, or whenever events or circumstances indicate that impairment may have occurred. The

first step is a comparison of the fair value of an internal reporting unit with its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying value, goodwill of the reporting unit is not considered impaired and the second step is unnecessary. If the carrying value of the reporting unit exceeds its fair value, a second test is performed to measure the amount of impairment by comparing the carrying amount of the goodwill to a determination of the implied value of the goodwill. If the carrying amount of the goodwill is greater than the implied value, an impairment loss is recognized for the difference.

The implied value of goodwill is determined as of the test date by performing a purchase price allocation, as if the reporting unit had just been acquired, using currently estimated fair values of the individual assets and liabilities of the reporting unit, together with an estimate of the fair value of the reporting unit taken as a whole. The estimate of the fair value of the reporting unit is based upon information available regarding prices of similar groups of assets, or other valuation techniques including present value techniques based upon estimates of future cash flow.

Intangible assets, including technology, database, customer relationships, and customer contracts arising from the acquisition of Fast Track in March 2008, are recorded at cost less accumulated amortization and are amortized using a method which reflects the pattern in which the economic benefit of the related intangible asset is utilized. For intangible assets subject to amortization, impairment is recognized if the carrying amount is not recoverable and the carrying amount exceeds the fair value of the intangible asset.

As of December 31, 2009 and 2008, we had goodwill and intangible assets of \$14.2 million and \$16.0 million, respectively. The results of our annual impairment test performed in 2009 indicated that our goodwill and intangible assets were not impaired. There were many assumptions and estimates used that directly impact the results of impairment testing, including an estimate of future expected revenues, earnings and cash flows, and discount rates applied to such expected cash flows in order to estimate fair value. We had the ability to influence the outcome and ultimate results based on the assumptions and estimates we chose for testing. To mitigate undue influence, we set criteria that were reviewed and approved by various levels of management. The determination of whether or not goodwill or acquired intangible assets have become impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the value of our reporting unit. Changes in our strategy or market conditions could significantly impact these judgments and require adjustments to recorded amounts of intangible assets.

### ***Income Taxes***

We use 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.

On January 1, 2007, we adopted Financial Accounting Standards Board, or FASB, Interpretation No. 48, *Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109*, (currently under ASC 740-10). ASC 740-10 addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under ASC 740-10, we 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.

We had approximately \$56.2 million and \$83.7 million of federal net operating loss carryforwards as of December 31, 2009 and 2008, respectively, available to offset future taxable income, expiring from 2012 through 2028. We also had net operating loss carryforwards for state and local income tax purposes in aggregate of

approximately \$191.0 million and \$248.1 million as of December 31, 2009 and 2008, respectively, available to offset future state and local taxable income, expiring from 2010 through 2028. Certain net operating loss carryforwards were obtained through our acquisition of Fast Track in 2008.

The utilization of our net operating loss carryforwards are subject to limitations under the Internal Revenue Code. Due to this limitation and the uncertainty if our future taxable income will be sufficient to utilize these tax benefits, we provided a valuation allowance against the majority of our domestic net deferred tax assets as their future utilization is uncertain at this time. The net change in the valuation allowance was a decrease of \$2.5 million in 2009, an increase of \$7.7 million in 2008 and an increase of \$11.1 million in 2007.

## Results of Operations

We recognize revenues from applications 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 during prior periods. Consequently, an increase or a decrease in new application services arrangements in any one quarter may not significantly affect our results of operations in that quarter.

Additionally, when we sell application services and professional services in a combined arrangement, which is our typical practice, we recognize revenues from professional services ratably over the term of the arrangement, rather than as the professional services are delivered, which varies throughout the arrangement term. Accordingly, a significant portion of the revenues for professional services performed in any reporting period will be deferred to future periods. We recognize expenses related to our professional services in the period in which the expenses are incurred.

As a result, our professional services revenues and gross margin for any reporting period may not be reflective of the professional services delivered during that reporting period or of the current business trends with respect to our professional services.

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

	<u>Year Ended December 31,</u>		
	<u>2009</u>	<u>2008</u>	<u>2007</u>
Revenues:			
Application services .....	73.0%	69.8%	70.8%
Professional services .....	27.0%	30.2%	29.2%
Total revenues .....	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
Cost of revenues:			
Application services .....	16.9%	18.6%	20.9%
Professional services .....	18.7%	29.1%	52.5%
Total cost of revenues .....	<u>35.6%</u>	<u>47.7%</u>	<u>73.4%</u>
Gross profit .....	64.4%	52.3%	26.6%
Operating costs and expenses:			
Research and development .....	16.0%	18.3%	17.0%
Sales and marketing .....	19.6%	22.9%	24.6%
General and administrative .....	22.6%	26.0%	21.2%
Total operating costs and expenses .....	<u>58.2%</u>	<u>67.2%</u>	<u>62.8%</u>
Operating income (loss) .....	6.2%	(14.9)%	(36.2)%

**Year Ended December 31, 2009 Compared to Year Ended December 31, 2008**

**Revenues**

	Year Ended December 31,					
	2009		2008		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amount in thousands)					
Revenues:						
Application services	\$102,541	73.0%	\$ 73,820	69.8%	\$28,721	38.9%
Professional services	37,859	27.0%	31,904	30.2%	5,955	18.7%
Total revenues	<u>\$140,400</u>	<u>100.0%</u>	<u>\$105,724</u>	<u>100.0%</u>	<u>\$34,676</u>	<u>32.8%</u>

*Total revenues.* Total revenues increased \$34.7 million, or 32.8%, to \$140.4 million in 2009 from \$105.7 million in 2008. The increase in revenues was primarily due to a \$28.7 million increase in revenues from application services and a \$6.0 million increase in revenues from professional services. At the start of 2009, we had approximately \$116.7 million of full year backlog.

*Application services revenues.* Revenues from application services increased \$28.7 million, or 38.9%, to \$102.5 million in 2009 from \$73.8 million in 2008. The majority of the increase in application services revenues was derived from increased activity in our existing customer base, primarily resulting from new studies and renewals. The increase in revenues was also driven by new customer additions, increased product uptake and cross-selling to existing customers. In addition to maintaining a high customer retention rate, we benefited from providing full year of services for those customers who began their multi-year arrangements during 2008. Also, we were able to sell and implement several large multi-year arrangements as well as make significant inroads into new midmarket customers during 2009. While the revenues from single-study arrangements have continued to grow, the multi-study arrangement revenue growth remained strong, increasing by 50.9% versus a year ago. Revenues also expanded significantly from both domestic and international customers compared with the prior period. Revenues from customers based in North America grew 39.8%, whereas revenues from customers based in Europe and Asia grew 32.4% and 46.5%, respectively. Finally, our acquisition of Fast Track contributed approximately \$2.9 million of our increase in revenues as we benefited from cross-selling Fast Track products to our existing customers as well as recognized a full year of revenues in 2009 as compared with only nine and a half months in 2008. Revenues from Fast Track are primarily generated from customers based in North America.

*Professional services revenues.* Revenues from professional services increased \$6.0 million, or 18.7%, to \$37.9 million in 2009 from \$31.9 million in 2008. The increase in professional services revenues was attributable to higher demand for our services from new application services customers as well continued demand from existing customers driven by the increase in the number of studies performed by our customers. Revenues from international customers grew 42.6% compared with the prior period, as many of our international customers relied more heavily on our implementation related services.

**Cost of Revenues**

	Year Ended December 31,					
	2009		2008		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amounts in thousands)					
Cost of revenues:						
Application services	\$23,752	16.9%	\$19,647	18.6%	\$ 4,105	20.9%
Professional services	26,219	18.7%	30,801	29.1%	(4,582)	(14.9)%
Total cost of revenues	<u>\$49,971</u>	<u>35.6%</u>	<u>\$50,448</u>	<u>47.7%</u>	<u>\$ (477)</u>	<u>(0.9)%</u>

*Total cost of revenues.* Total cost of revenues decreased \$0.5 million, or 0.9%, to \$49.9 million in 2009 from \$50.4 million in 2008. The decrease in total cost of revenues was primarily due to a decrease in cost of professional services revenues, partially offset by an increase in cost of application services revenues.

*Cost of application services revenues.* Cost of application services revenues increased \$4.1 million, or 20.9%, to \$23.7 million in 2009 from \$19.6 million in 2008. The increase was primarily due to \$1.6 million of additional costs incurred by Fast Track resulting from a full year of operations in 2009 as opposed to nine and a half months in 2008. The remaining increase was due to an increase in depreciation and technology-related expenses of \$1.6 million, personnel-related costs of \$1.5 million and other miscellaneous costs of \$0.4 million, partially offset by a decrease in consulting expenses of \$1.0 million. The increase in personnel-related costs was a result of our growth in business and our combined efforts to replace outside consultants with employees. The increase in depreciation and technology-related expenses related to software license costs and equipment purchases primarily in our Houston data center, were incurred also in support of our overall growth.

*Cost of professional services revenues.* Cost of professional services decreased \$4.6 million, or 14.9%, to \$26.2 million in 2009 from \$30.8 million in 2008. The decrease was primarily due to a decrease in consulting costs of \$2.8 million, certain customer reimbursable expenses of \$1.3 million and travel expense of \$0.5 million. The decrease in consulting-related costs was associated with our continuing efforts to reduce our reliance on outside consultants and improve margin in our professional services business. The decrease in customer reimbursable expenses was primarily due to the impact of a \$0.4 million non-recurring cost we incurred in the second quarter of 2008 and the reduction of hardware provisioning costs, as we discontinued this activity in 2009.

### *Operating Costs and Expenses*

	Year Ended December 31,					
	2009		2008		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amounts in thousands)					
Operating costs and expenses:						
Research and development . . . . .	\$22,534	16.0%	\$19,340	18.3%	\$ 3,194	16.5%
Sales and marketing . . . . .	27,452	19.6%	24,190	22.9%	3,262	13.5%
General and administrative . . . . .	31,666	22.6%	27,474	26.0%	4,192	15.3%
Total operating costs and expenses . . . . .	<u>\$81,652</u>	<u>58.2%</u>	<u>\$71,004</u>	<u>67.2%</u>	<u>\$10,648</u>	<u>15.0%</u>

*Total operating costs and expenses.* Total operating costs and expenses increased \$10.6 million, or 15.0%, to \$81.6 million in 2009 from \$71.0 million in 2008. Costs increased in each department with the larger percentage increase in research and development and general and administrative.

*Research and development expenses.* Research and development expenses increased \$3.2 million, or 16.5%, to \$22.5 million in 2009 from \$19.3 million in 2008. The increase was primarily due to an increase in personnel-related costs of \$4.9 million and miscellaneous costs of \$0.3 million, partially offset by a decrease in professional and consulting fees of \$1.3 million and the impact of a one-time write-off of in-process research and development projects of \$0.7 million in 2008. Our full year operations of Fast Track in 2009 accounted for \$1.9 million of the increase in personnel-related costs. The remaining increase in personnel-related costs was incurred to replace outside consultants, as well as to support our strategy to enhance and broaden our products offerings. The decrease in professional and consulting fees was also due to certain non-recurring projects performed during the prior year.

*Sales and marketing expenses.* Sales and marketing expenses increased \$3.2 million, or 13.5%, to \$27.4 million in 2009 from \$24.2 million in 2008. The increase was primarily due to higher personnel-related costs of \$4.0 million, which was primarily attributable to higher incentive compensation related to our sales and business

performance. The increase was also due to higher stock-based compensation costs as we granted new awards in the current year and higher compensation costs resulting from increased staffing levels in both our sales and marketing departments. The increase was partially offset by a decrease in professional and consulting fees of \$0.5 million and a decrease in other miscellaneous costs of \$0.3 million.

*General and administrative expenses.* General and administrative expenses increased \$4.2 million, or 15.3%, to \$31.7 million in 2009 from \$27.5 million in 2008. The increase was primarily due to an increase in personnel-related costs of \$2.6 million which was primarily due to higher staffing levels as we expanded our corporate personnel in anticipation of becoming a public company; higher incentive compensation due to business performance; and higher stock-based compensation costs as we granted new awards in association with completing our IPO. The increase in general and administrative expenses was also attributable to \$0.6 million of costs associated with our secondary offering in December 2009, \$0.5 million of accrual relating to our pending indemnification settlement and \$0.5 million of higher foreign exchange loss.

### *Income Tax Expense*

Income tax expense increased \$0.9 million, or 102.1%, to \$1.8 million in 2009 from \$0.9 million in 2008. Prior to 2009, our income tax expense primarily consisted of foreign income taxes imposed on our foreign subsidiaries in the United Kingdom and Japan. The increase was primarily due to domestic current income tax expense of \$1.4 million, offset by the recognition of a deferred income tax benefit of \$0.3 million and a slight reduction in foreign related taxes. The domestic current income expense resulted from our inability to fully utilize our federal net operating loss carryforwards due to limitation under Section 382, as well as the temporary suspension of net operating loss carryforward utilization in the State of California and income taxes incurred in other state and local jurisdictions. In addition, we recognized a domestic deferred income tax benefit of \$0.3 million relating to our alternative minimum tax carryforwards, which are not currently subject to expiration dates and we believe are realizable.

### *Year Ended December 31, 2008 Compared to Year Ended December 31, 2007*

#### *Revenues*

	Year Ended December 31,					
	2008		2007		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amount in thousands)					
Revenues:						
Application services	\$ 73,820	69.8%	\$44,592	70.8%	\$29,228	65.5%
Professional services	31,904	30.2%	18,391	29.2%	13,513	73.5%
Total revenues	<u>\$105,724</u>	<u>100.0%</u>	<u>\$62,983</u>	<u>100.0%</u>	<u>\$42,741</u>	<u>67.9%</u>

*Total revenues.* Total revenues increased \$42.7 million, or 67.9%, to \$105.7 million in 2008 from \$63.0 million in 2007. The increase in revenues was primarily due to a \$29.2 million increase in revenues from application services, and a \$13.5 million increase in revenues from professional services. Revenues for 2008 includes Fast Track application and professional services revenues of \$4.0 million from the date of acquisition (March 17, 2008) through December 31, 2008. At the start of 2008, we had approximately \$79.7 million of full year backlog.

*Application services revenues.* Revenues from application services increased \$29.2 million, or 65.5%, to \$73.8 million in 2008 from \$44.6 million in 2007. Our acquisition of Fast Track contributed \$3.8 million of additional applications services revenues in 2008. Excluding the impact of Fast Track, application services revenues increased \$25.4 million, or 57.0%, compared with the prior year. The majority of the increase in application services revenues was derived from increased activity in our existing customer base, primarily resulting from new studies and renewals. In addition to maintaining a high customer retention rate, we also

benefited from providing a full year of services to those customers who began their multi-year arrangements in the prior year. Revenues from domestic customers grew 59.9%, whereas revenues from customers in Europe and Asia grew 66.2% and 23.8%, respectively. Excluding the impact of Fast Track, our customer base grew to 120 compared with 93 at the end of 2007, accounting for the remaining growth in applications services revenues. The acquisition of Fast Track expanded our customer base by approximately 27 customers.

*Professional services revenues.* Revenues from professional services increased \$13.5 million, or 73.5%, to \$31.9 million in 2008 from \$18.4 million in 2007. Our acquisition of Fast Track contributed \$0.2 million of additional professional services revenues. Excluding the impact of Fast Track, the increase in professional services revenues was due to a higher number of studies started in the period, derived from both existing customers and new customers added during the year.

### ***Cost of Revenues***

	Year Ended December 31,					
	2008		2007		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amounts in thousands)					
Cost of revenues:						
Application services . . . . .	\$19,647	18.6%	\$13,170	20.9%	\$ 6,477	49.2%
Professional services . . . . .	30,801	29.1%	33,035	52.5%	(2,234)	(6.8)%
Total cost of revenues . . . . .	<u>\$50,448</u>	<u>47.7%</u>	<u>\$46,205</u>	<u>73.4%</u>	<u>\$ 4,243</u>	<u>9.2%</u>

*Total cost of revenues.* Total cost of revenues increased \$4.2 million, or 9.2%, to \$50.4 million in 2008 from \$46.2 million in 2007. The increase in total cost of revenues was primarily due to the increase in cost of application services revenues. Cost of revenues for 2008 included \$2.6 million of cost of revenues incurred by Fast Track since the date of acquisition.

*Cost of application services revenues.* Cost of application services revenues increased \$6.4 million, or 49.2%, to \$19.6 million in 2008 from \$13.2 million in 2007. The increase was due to \$3.6 million in personnel-related costs, depreciation of \$2.3 million primarily associated with the build out and maintenance of our Houston data center, intangible asset amortization of \$1.2 million associated with the acquisition of Fast Track and \$0.6 million of other costs. This increase was partially offset by a decrease in consulting expenses of \$1.3 million.

*Cost of professional services revenues.* Cost of professional services decreased \$2.2 million, or 6.8%, to \$30.8 million in 2008 from \$33.0 million in 2007. The decrease was primarily due to a decrease in consulting costs of \$4.4 million as we replaced outside consultants with employees and \$0.6 million of other costs, partially offset by an increase in personnel-related costs of \$2.8 million.

### ***Operating Costs and Expenses***

	Year Ended December 31,					
	2008		2007		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amounts in thousands)					
Operating costs and expenses:						
Research and development . . . . .	\$19,340	18.3%	\$10,716	17.0%	\$ 8,624	80.5%
Sales and marketing . . . . .	24,190	22.9%	15,484	24.6%	8,706	56.2%
General and administrative . . . . .	27,474	26.0%	13,361	21.2%	14,113	105.6%
Total operating costs and expenses . . . . .	<u>\$71,004</u>	<u>67.2%</u>	<u>\$39,561</u>	<u>62.8%</u>	<u>\$31,443</u>	<u>79.5%</u>

*Total operating costs and expenses.* Total operating costs and expenses increased \$31.4 million, or 79.5%, to \$71.0 million in 2008 from \$39.6 million in 2007. Costs increased in each department with the largest increase in general and administrative costs. Total operating costs and expenses for 2008 included Fast Track operating expenses of \$6.0 million from the date of acquisition through December 31, 2008.

*Research and development expenses.* Research and development expenses increased \$8.6 million, or 80.5%, to \$19.3 million in 2008 from \$10.7 million in 2007. The increase was primarily due to an increase in personnel-related costs of \$6.1 million, professional and consulting fees of \$0.8 million and a \$0.7 million write off of in-process research and development projects, which were acquired from Fast Track. The personnel increase was planned to support our development and investment in new products, including the integration of the Fast Track products. Our acquisition of Fast Track accounted for \$0.8 million of the increase in personnel-related costs. The write-off of certain in-process research and development projects was required as we determined that technological feasibility had not been established for these acquired projects. The write-off occurred in the first quarter of 2008. The remaining \$1.0 million increase in research and development expenses related to higher rent, travel related costs and other miscellaneous costs.

*Sales and marketing expenses.* Sales and marketing expenses increased \$8.7 million, or 56.2%, to \$24.2 million in 2008 from \$15.5 million in 2007. The increase was primarily attributable to higher personnel-related costs of \$6.6 million as we increased our staff in both our sales team and marketing departments, travel and conference related costs of \$0.8 million and \$0.4 million related to the increased professional and consulting fees. The remaining \$0.9 million increase in sales and marketing costs related to other miscellaneous costs. \$1.0 million of the increase in personnel-related costs was attributable to our acquisition of Fast Track.

*General and administrative expenses.* General and administrative expenses increased \$14.1 million, or 105.6%, to \$27.5 million in 2008 from \$13.4 million in 2007. The increase was primarily due to increases in personnel-related costs of \$8.9 million, professional and consulting fees of \$3.2 million, facility-related costs of \$0.7 million primarily associated with a new office space, technology-related expenses of \$0.6 million to support our growth and increased travel-related expenses of \$0.3 million. Our acquisition of Fast Track accounted for \$1.9 million of the increase in personnel-related costs. The remaining increase in personnel-related costs was due to higher staffing levels, bonuses and stock-based compensation as we expanded our back office support groups in anticipation of our IPO. The increase in professional and consulting fees included certain non-recurring accounting related costs also incurred in anticipation of becoming a public company. The remaining \$0.4 million increase in general and administrative expenses was primarily due to other costs resulting from our acquisition of Fast Track and other miscellaneous expenses.

### ***Income Tax Expense***

Income tax expense increased \$0.4 million, or 78.6%, to \$0.9 million in 2008 from \$0.5 million in 2007. Our income tax expense primarily consisted of foreign income taxes imposed on our foreign subsidiaries in the United Kingdom and Japan and increased as a result of higher taxable income from both subsidiaries.

### **Liquidity and Capital Resources**

In June 2009, we completed our IPO, issuing 6.3 million shares of common stock at a public offering price of \$14.00 per share. As a result of the offering, we received net proceeds of \$75.2 million, after deducting underwriting discounts and commissions of \$6.2 million and offering expenses of \$6.8 million. Such proceeds were held in cash and cash equivalents through September 30, 2009 and subsequently, a portion of such proceeds has been invested into high quality marketable securities. As a result of the IPO, all outstanding convertible preferred stock was automatically converted into 9.0 million shares of common stock. In addition, we paid out all accumulated accrued dividends of \$2.3 million to preferred stockholders at conversion. In December 2009, we

also completed a secondary offering in which certain selling stockholders sold a total of approximately 6.3 million shares of our common stock. We did not receive any proceeds but incurred approximately \$0.6 million of offering expenses in connection with this secondary offering. Such offering expenses were expensed as incurred.

Prior to completing the IPO in June 2009, we funded our growth primarily through the private sale of equity securities, borrowings through various debt agreements, working capital and equipment leases. At December 31, 2009 and December 31, 2008, our principal sources of liquidity were cash, cash equivalents and marketable securities of \$89.1 million and \$9.8 million, respectively. Cash and cash equivalents increased \$29.6 million during 2009 primarily due to net proceeds from the IPO and cash receipts from higher sales activity, partially offset by the purchases of marketable securities, repayment of our term loan, the funding of capital expenditures and the payment of accumulated accrued dividends to our former preferred stockholders. The increase in cash and cash equivalents of \$2.0 million in 2008 in comparison with 2007 was primarily due to cash receipts from higher sales activity and proceeds from our senior secured credit facility, partially offset by cash used to repay our term notes and fund capital expenditures required to support our growth. We began to invest in marketable securities in October 2009. 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 one investment in a money market fund. Marketable securities, which we classify as available for sale securities, primarily consist of high quality commercial paper, corporate bonds, U.S. government obligations and bank certificates of deposit. 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.

Prior to the repayment of our term loan, we had a senior secured credit facility that included a \$15.0 million term loan and a \$10.0 million revolving line of credit. The term loan was fully drawn at closing in September 2008. In July 2009, we used a portion of our net proceeds from the IPO to prepay the entire outstanding indebtedness of the term loan. The total payoff amount of \$14.7 million included the outstanding principal balance of \$14.3 million, as well as accrued interest and termination fees of \$0.4 million. Also in July 2009, we executed a standby letter of credit under our credit agreement in connection with the office lease of approximately \$0.2 million, which resulted in a reduction of the available amount under the revolving line of credit. As of December 31, 2009, approximately \$9.8 million of the revolving line of credit under the senior secured credit facility 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. Prior to 2008, we obtained additional working capital through various term notes in the amounts of \$1.5 million in November 2003, \$2.5 million in December 2005 and \$8.0 million in October 2007 provided by one of our former preferred stockholders. We previously repaid \$1.0 million of these term notes prior to fully repaying all of the term notes in September 2008.

We believe that our cash flows from operations, our available cash and cash equivalents as well as our highly liquid marketable securities as of December 31, 2009, and our existing revolving line of credit will be sufficient to satisfy the anticipated cash requirements associated with our existing operations for at least the next 12 months. In 2010, we expect to make approximately \$8.0 million to \$10.0 million in capital expenditures, primarily to enhance the stability and increase the capacity in our Houston data center. We expect to acquire our capital equipment through purchases as opposed to capital lease arrangements. Our future capital expenditures and other cash requirements could be higher than we currently expect as a result of various factors, including any expansion of our business that we may complete. See "Risk Factors" in Item 1A of this Annual Report on Form 10-K.

## ***Cash Flows***

### ***Cash Flows Provided By Operating Activities***

Cash flows provided by operating activities during 2009 were \$28.2 million, which consisted primarily of a net income of \$5.2 million, non-cash adjustments of depreciation and amortization of \$10.6 million and stock-

based compensation of \$4.7 million, a decrease in accounts receivable of \$6.3 million, an increase in accrued expenses of \$6.6 million and a decrease in deferred revenue of \$3.9 million. The decrease in accounts receivable was due to strong customer collection activity. The increase in accrued expenses was primarily due to higher incentive compensation associated with business performance as well as higher professional fees associated with our secondary offering and pending indemnification settlement. The decrease in deferred revenue was primarily due to the timing of our customer billings and associated revenue recognition. Deferred revenue was also impacted by a \$5.0 million customer payment in the third quarter, provided in accordance with the underlying contractual agreement, made in advance of the full delivery of services required to begin revenue recognition.

Cash flows provided by operating activities during 2008 were \$9.5 million, which consisted of net loss of \$18.3 million, offset by positive non-cash adjustments to net loss of \$13.0 million and by a \$14.8 million increase in other operating activities. Positive non-cash adjustments to net loss consisted principally of \$8.7 million of depreciation and amortization, \$3.2 million of stock-based compensation and \$0.7 million related to the write-off of in-process research and development projects acquired from Fast Track. The significant increase in other operating activities includes the increase in deferred revenue of \$24.6 million and accrued expenses of \$3.0 million, partially offset by the increase in accounts receivable of \$8.9 million and the decrease in our accounts payable of \$4.2 million. Other operating activities were impacted by increased sales activity compared with the prior year and the timing of customer payments.

Cash flows provided by operating activities during 2007 were \$6.0 million, which consisted primarily of net loss of \$23.7 million, plus \$4.6 million of depreciation and amortization, \$1.3 million of stock-based compensation and \$33.3 million increase in deferred revenue, offset by a \$6.8 million increase in accounts receivable. The increase in deferred revenue and accounts receivable was primarily due to increased sales activity compared with the prior year.

#### ***Cash Flows Used In Investing Activities***

Cash flows used in investing activities during 2009 were \$54.6 million, which was related to \$49.8 million of purchases of marketable securities and \$4.8 million of purchases of furniture, fixtures and equipment. We also acquired \$1.3 million of equipment through capital lease arrangements.

Cash flows used in investing activities during 2008 were \$4.1 million, which consisted of purchases of furniture, fixtures and equipment of \$4.6 million and costs incurred to acquire Fast Track of \$0.6 million, partially offset by cash and cash equivalents acquired from acquisition of Fast Track of \$1.0 million. We also acquired \$2.7 million of equipment through capital lease arrangements. All acquisitions of furniture, fixtures and equipment were required to support our business growth.

Cash flows used in investing activities during 2007 were \$3.8 million, which consisted of purchases of furniture, fixtures and equipment of \$3.7 million and an increase in our restricted cash. We acquired \$9.1 million of equipment through capital lease arrangements.

#### ***Cash Flows Provided by or Used In Financing Activities***

Cash flows provided by financing activities during 2009 were \$56.0 million, which was primarily due to \$82.0 million of proceeds from the IPO, net of underwriting discounts and commissions. It was partially offset by a \$15.0 million repayment of the term loan under our credit facility, \$4.3 million of costs associated with our IPO, \$4.8 million of capital lease principal payments and \$2.3 million of preferred stock dividend payments.

Cash flows used in financing activities during 2008 were \$3.3 million, which consisted of \$4.2 million of capital lease principal payments and \$2.5 million of costs associated with our IPO, partially offset by \$3.4 million from the proceeds of borrowings under our new credit facility net of repayment of existing term loans and the payment of debt issuance costs.

Cash flows used in financing activities during 2007 were \$1.5 million, which consisted of \$2.8 million of capital lease principal payments and \$6.0 million relating to the acquisition of treasury stock, partially offset by \$7.3 million of net proceeds from our borrowing activities. The net proceeds from our borrowings were principally used to acquire our treasury stock.

***Contractual Obligations, Commitments and Contingencies***

The following table of our material contractual obligations as of December 31, 2009 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	1 year or less	2-3 years	4-5 years	More than 5 years
Contractual Obligations:					
Operating lease obligations . . . . .	\$10,444	\$3,209	\$4,631	\$1,698	\$906
Capital lease obligations . . . . .	3,670	2,864	806	—	—
Letters of credit . . . . .	676	676	—	—	—
Total . . . . .	\$14,790	\$6,749	\$5,437	\$1,698	\$906

In 2006, one of our former employees made a claim seeking compensation of approximately \$1.6 million in relation to a wrongful dismissal lawsuit. Subsequently, the claim was reduced to approximately \$1.4 million as of December 31, 2008. The court rendered its decision in January 2009, which awarded approximately \$0.1 million to the plaintiff. The plaintiff filed a notice of appeal in September 2009, which remains pending. We will continue to vigorously defend this claim until it is resolved. We have an accrual of approximately \$0.7 million as of December 31, 2009 and 2008 in association with this claim.

In 2006, it was claimed that certain applications offered to our customers potentially infringed on intellectual property rights held by a third party. As a result of negotiations with the claimant, we entered into a license and settlement agreement in June 2007, pursuant to which we licensed the intellectual property held by the claimant for use in our future sales to customers and settled all past infringement claims. We paid a settlement amount of \$2.2 million to the claimant in 2007. In June 2009, the claimant initiated a lawsuit against us claiming breach of contract. The complaint includes allegations that we have failed to pay unspecified royalties relating to sales of our products. We believe that the allegations in this lawsuit are without merit. We filed an answer in July 2009, denying all material allegations and asserting affirmative defenses. We also asserted counterclaims for a declaratory judgment that no royalties are owed with respect to sales of our products, as well as a counterclaim for claimant’s breach of the license and settlement agreement. The parties are now engaged in the discovery process. Since the probable outcome and the future economic impact of this litigation on us remain uncertain, we are unable to develop an estimate of our potential liability, if any, as it relates to this litigation. As a result, we did not record a liability as of December 31, 2009. The claimant also filed the patent infringement lawsuits against two of our customers as discussed below.

In 2008, two customers requested us to indemnify them in connection with patent infringement lawsuits filed by the claimant who also filed a lawsuit against us in June 2009 as discussed above. We agreed to defend and indemnify one of these customers with respect to the allegations, claims, and defenses relating to its use of our software. As the estimated indemnification obligation concerning this claim was determined to be probable and could be reasonably estimated, we had accrued approximately \$0.5 million which was included in our consolidated balance sheet as of December 31, 2009 and in our consolidated statements of operations in 2009. In February 2010, we reached an agreement in principle with this customer, which if consummated would result in us paying \$0.5 million to fully settle this indemnification obligation. To date, no claims have been asserted against the second customer with respect to its use of Medidata’s products.

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; (c) immediate vesting of any remaining unvested equity awards; and (d) a tax gross up payment under Section 280G of the Internal Revenue Code sufficient to reimburse the officer for 50% of any excise tax payable as a result of any termination payments following a change in control, if applicable.

### ***Letters of Credit***

We had several outstanding standby letters of credit as of December 31, 2009 and 2008 in the total amount of \$0.7 million and \$0.5 million, respectively. These standby letters of credit were fully collateralized with our restricted cash and revolving credit line under our senior secured credit facility as of December 31, 2009 and our restricted cash as of December 31, 2008.

### ***Tax Uncertainties***

We believe that our income tax positions and deductions will be sustained on audit and we do not anticipate material obligations in connection with uncertainties related to tax matters.

### **Effects of Recently Issued Accounting Standards**

In December 2007, the FASB issued SFAS No. 141(R), *Business Combinations*, (currently under ASC 805) and SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51*, (currently under ASC 810-10-65-1). SFAS No. 141(R) is required to be adopted concurrently with SFAS No. 160 and is effective for business combination transactions for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. Early adoption is prohibited. Application of SFAS No. 141(R) and SFAS No. 160 is required to be adopted prospectively, except for certain provisions of SFAS No. 141(R) and SFAS No. 160, which are required to be adopted retrospectively. Business combination transactions accounted for before adoption of SFAS No. 141(R) should be accounted for in accordance with SFAS No. 141, *Business Combinations*, and that accounting previously completed under SFAS No. 141 should not be modified as of or after the date of adoption of SFAS No. 141(R). We adopted SFAS No. 141(R) and SFAS No. 160 on January 1, 2009 and the adoptions did not have a material impact on our financial position or results of operations.

In May 2009, the FASB issued SFAS No. 165, *Subsequent Events*, (currently under ASC 855-10), which provides guidance on management's assessment of subsequent events and establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. SFAS No. 165 is effective prospectively for interim or annual financial periods ended after June 15, 2009. We adopted SFAS No. 165 in the second quarter of 2009. In February 2010, the FASB issued Accounting Standards Update, or ASU No. 2010-09, *Amendments to Certain Recognition and Disclosure Requirements*, to amend certain requirements from ASC 855-10. ASU No. 2010-09 requires SEC filers to evaluate subsequent events through the date the financial statements are issued, but exempts SEC filers from disclosing the date through which subsequent events have been evaluated previously required by ASC 855-10. ASU No. 2010-09 is effective immediately.

In June 2009, the FASB issued SFAS No. 166 (currently under ASU No. 2009-16, *Accounting for Transfers of Financial Assets*) and SFAS No. 167 (currently under ASU No. 2009-17, *Improvements to Financial Reporting by Enterprises Involved with Variable Interest Entities*). ASU No. 2009-16 amends the derecognition guidance and eliminates the exemption from consolidation for qualifying special-purpose entities, or QSPEs, in

ASC 860, *Transfer and Servicing*. As a result, a transferor will need to evaluate all existing QSPEs to determine whether they must now be consolidated in accordance with ASU No. 2009-17, which amends the consolidation guidance applicable to variable interest entities. The amendments will significantly affect the overall consolidation analysis under ASC 810-10, *Consolidation*, and all entities and enterprises currently within the scope of ASC 810-10, as well as QSPEs that are currently excluded from the scope of ASC 810-10. ASU No. 2009-16 is effective for financial asset transfers occurring after the beginning of an entity's first fiscal year that begins after November 15, 2009. ASU No. 2009-17 is effective as of the beginning of the first fiscal year that begins after November 15, 2009. The adoption of these statements is not expected to have a material impact on our results of operations, financial position and cash flows.

In June 2009, the FASB issued SFAS No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles – a replacement of SFAS No. 162*, (currently under ASC 105-10). SFAS No. 168 establishes the ASC as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with GAAP. Rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. SFAS No. 168 is effective for financial statements issued for interim and annual periods ending after September 15, 2009. We adopted SFAS No. 168 in the third quarter of 2009 and quoted the accounting literature references contained in this Annual Report on Form 10-K in accordance with the ASC.

In October 2009, the FASB issued ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements*. ASU No. 2009-13 amends the current guidance on arrangements with multiple deliverables under ASC 605-25, *Revenue Recognition – Multiple-Element Arrangements*, to (a) eliminate the separation criterion that requires entities to establish objective and reliable evidence of fair value for undelivered elements; (b) establish a selling price hierarchy to help entities allocate arrangement consideration to the separate units of account; (c) eliminate the residual allocation method which will be replaced by the relative selling price allocation method for all arrangements; and (d) significantly expand the disclosure requirements. ASU No. 2009-13 is effective for new or materially modified arrangements in fiscal years beginning on or after June 15, 2010. Early adoption is permitted. If early adoption is elected and the period of adoption is not the beginning of the fiscal year, retrospective application from the beginning of the fiscal year of adoption and additional disclosure are required. Retrospective application for all prior periods presented in the financial statements is also permitted, but not required. We are currently evaluating the impact, if any, of these provisions of ASU No. 2009-13 on our consolidated financial statements.

In October 2009, the FASB also issued ASU No. 2009-14, *Certain Revenue Arrangements that Include Software Elements*. ASU No. 2009-14 amends the scoping guidance for software arrangements under ASC 985-605, *Software – Revenue Recognition*, to exclude tangible products that contain software elements and nonsoftware elements that function together to interdependently deliver the product's essential functionality. Such tangible products being excluded from ASU No. 2009-14 will instead fall under the scope of ASU No. 2009-13. The FASB also provided several considerations and examples for entities applying this guidance. The effective date for ASU No. 2009-14 is consistent with ASU No. 2009-13 as stated above. We are currently evaluating the impact, if any, of these provisions of ASU No. 2009-14 on our consolidated financial statements.

In January 2010, the FASB issued ASU No. 2010-06, *Improving Disclosure about Fair Value Measurement*. ASU 2010-06 amends ASC 820-10, *Fair Value Measurements and Disclosures*, to add new requirements for disclosure about transfers into and out of Levels 1 and 2 and separate disclosures about purchases, sales, issuances, and settlements relating to Level 3 measurements. It also clarifies existing fair value disclosures about the level of disaggregation and about inputs and valuation techniques used to measure fair value. ASU No. 2010-06 is effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosures about purchases, sales, issuances, and settlements relating to Level 3 measurements, which are effective for interim and annual reporting periods beginning after December 15, 2010. We are currently evaluating the impact, if any, of these provisions of ASU No. 2010-06 on our consolidated financial statements.

## **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 7A. Quantitative and Qualitative Disclosures about Market Risk**

### *Interest Rate Sensitivity*

We had unrestricted cash and cash equivalents totaling \$39.4 million and \$9.8 million at December 31, 2009 and 2008, respectively. Our cash equivalents are invested primarily in money market accounts and high quality liquid investments of a short duration and are not materially affected by fluctuations in interest rates. We also had investment in marketable securities, which we classify as available for sale securities, totaling \$49.6 million at December 31, 2009. Substantially all of our marketable securities are fixed income securities, which primarily consist of high quality commercial paper, corporate bonds, U.S. government obligations and bank certificates of deposit. 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 credit line under our senior secured credit facility, which is currently undrawn. Accordingly, we will be exposed to fluctuations in interest rates if such revolving credit line is drawn. Assuming the maximum available amount of our revolving credit line was drawn as of December 31, 2009, each hundred basis point change in prime rate would result in a change in interest expense by an average of approximately \$0.1 million annually. Prior to the repayment in July 2009, we also had a term loan with floating rate under our senior secured credit facility. As of December 31, 2008, based on the ending balance of our term loan and assuming the entire amount of our revolving credit line were drawn, each hundred basis point change in prime rate would result in a change in interest expense by an average of approximately \$0.2 million annually.

### *Exchange Rate Sensitivity*

We have two separate exposures to currency fluctuation risk: subsidiaries outside the United States which use a foreign currency as their functional currency which 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 income (loss). We had translation exposure to various foreign currencies, including the Euro, British Pound Sterling and Japanese Yen. The potential loss resulting from a hypothetical 10% adverse change in quoted foreign currency exchange rates amounts to \$0.3 million and \$0.2 million as of December 31, 2009 and 2008, respectively.

We generally invoice our customers in U.S. dollars. However, we invoice a portion of customers in foreign currencies, a majority of which is in Euro, Swiss Franc and Japanese Yen. 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. Amounts outstanding under long-term debt agreements are considered to be carried at their estimated fair values because they bear interest at rates which approximate market. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

## **Item 8. Financial Statements and Supplementary Data**

The consolidated financial statements and supplementary data are listed under Part IV, Item 15, in this Annual Report on Form 10-K.

## **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

Not applicable.

## **Item 9A. Controls and Procedures**

### ***Evaluation of Disclosure Controls and Procedures***

As of December 31, 2009, 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 December 31, 2009.

### ***Internal Control over Financial Reporting***

This annual report on Form 10-K does not include a report of our management's assessment regarding internal control over financial reporting or an attestation report our registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

### ***Changes in Internal Control over Financial Reporting***

Other than activities associated with the remediation efforts expressed below, 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.

### ***Remediation Efforts to Address Material Weakness in Internal Control over Financial Reporting***

In connection with the audit of our consolidated financial statements for the years ended December 31, 2007 and 2006, we, together with our independent registered public accounting firm, identified a number of material weaknesses in our internal controls over financial reporting attributable to deficiencies in our revenue recognition and expense cut-off procedures. Our material weaknesses were attributable to deficiencies in our revenue recognition related to ineffective review of contract terms and their impact on timing of revenue recognition, ineffective cut-off procedures, the extensive use of manual procedures and inadequate staffing, as well as ineffective expense cut-off procedures, which resulted in the recording of audit adjustments.

Subsequent to the issuance of our 2008 consolidated financial statements, we reviewed our practice regarding the timing of revenue recognition. Specifically, we examined our treatment of certain customer arrangements in which application services and professional services were sold in the same single-study or multi-study arrangement. As a result of this review, we restated our consolidated financial statements for the years ended December 31, 2008, 2007, 2006 and 2005. This restatement was the result of the previously identified revenue recognition control deficiencies that constituted material weaknesses described above.

Our remediation of material weaknesses commenced in 2008 and continued into 2009. The actions we took included hiring a new director of revenue accounting and additional technical accounting personnel with public company experience, designing a comprehensive revenue recognition policy, and establishing new procedures for accruing missing invoices and expense reports. We performed additional analyses and implemented other procedures designed to ensure that our annual and interim consolidated financial statements filed with the SEC were prepared in accordance with accounting principles generally accepted in the United States of America. We also initiated other measures that included the creation of a full set of accounting policies and procedures, training of our accounting staff and conducting accounting and process reviews by senior finance staff. While we have certain areas where documentation can be improved and additional control procedures will be implemented in 2010 in connection with our preparation for complying with Section 404 of the Sarbanes-Oxley Act of 2002, no material weaknesses in our control environment were identified as of December 31, 2009.

### **Item 9B. Other Information**

Not applicable.

## **PART III**

### **Item 10. Directors, Executive Officers and Corporate Governance**

The information required by this Item 10 is incorporated by reference to our Proxy Statement to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2009 in connection with our 2010 Annual Meeting of Stockholders.

### **Item 11. Executive Compensation**

The information required by this Item 11 is incorporated by reference to our Proxy Statement to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2009 in connection with our 2010 Annual Meeting of Stockholders.

### **Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

The information required by this Item 12 is incorporated by reference to our Proxy Statement to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2009 in connection with our 2010 Annual Meeting of Stockholders.

### **Item 13. Certain Relationships and Related Transactions, and Director Independence**

The information required by this Item 13 is incorporated by reference to our Proxy Statement to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2009 in connection with our 2010 Annual Meeting of Stockholders.

### **Item 14. Principal Accounting Fees and Services**

The information required by this Item 14 is incorporated by reference to our Proxy Statement to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2009 in connection with our 2010 Annual Meeting of Stockholders.

## PART IV

### Item 15. Exhibits and Financial Statement Schedules

(a) We have filed the following documents as part of this Form 10-K:

#### *1. Consolidated Financial Statements*

	<u>Page</u>
Report of Independent Registered Public Accounting Firm . . . . .	F-1
Consolidated Balance Sheets as of December 31, 2009 and 2008 . . . . .	F-2
Consolidated Statements of Operations for the years ended December 31, 2009, 2008 and 2007 . . . .	F-4
Consolidated Statements of Stockholders' Equity (Deficit) for the years ended December 31, 2009, 2008 and 2007 . . . . .	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2009, 2008 and 2007 . . . .	F-6
Notes to Consolidated Financial Statements . . . . .	F-8

#### *2. Financial Statement Schedule*

	<u>Page</u>
Schedule II – Valuation and Qualifying Accounts . . . . .	F-32

All other schedules are omitted because they are not required or the required information is shown in the financial statements or notes thereto.

#### *3. Exhibits.*

The information required by this Item 15 is set forth on the exhibit index that follows the signature page of this report.

## SIGNATURES.

Pursuant to the requirements of Section 13 or 15(d) 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/ TAREK A. SHERIF                      
**Tarek A. Sherif**  
*Chairman and Chief Executive Officer*

Date: March 15, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>                    /s/ TAREK A. SHERIF                    </u> <b>Tarek A. Sherif</b>	Chairman, Chief Executive Officer <i>(Principal Executive Officer)</i> and Director	March 15, 2010
<u>                    /s/ BRUCE D. DALZIEL                    </u> <b>Bruce D. Dalziel</b>	Chief Financial Officer <i>(Principal Financial Officer)</i>	March 15, 2010
<u>                    /s/ CORY DOUGLAS                    </u> <b>Cory Douglas</b>	VP, Controller <i>(Principal Accounting Officer)</i>	March 15, 2010
<u>                    /s/ GLEN M. DE VRIES                    </u> <b>Glen M. de Vries</b>	President and Director	March 15, 2010
<u>                    /s/ CARLOS DOMINGUEZ                    </u> <b>Carlos Dominguez</b>	Director	March 15, 2010
<u>                    /s/ NEIL M. KURTZ, M.D.                    </u> <b>Neil M. Kurtz, M.D.</b>	Director	March 15, 2010
<u>                    /s/ GEORGE McCULLOCH                    </u> <b>George McCulloch</b>	Director	March 15, 2010
<u>                    /s/ PETER SOBILOFF                    </u> <b>Peter Sobilloff</b>	Director	March 15, 2010
<u>                    /s/ ROBERT B. TAYLOR                    </u> <b>Robert B. Taylor</b>	Director	March 15, 2010

## EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.1(1)	Fourth Amended and Restated Certificate of Incorporation.
3.2(1)	Amended and Restated Bylaws.
4.1(1)	Specimen common stock certificate.
10.1(1)	Form of Officer and Director Indemnification Agreement.
10.2(2)	Stock Repurchase Agreement, dated October 2, 2007, by and among Medidata Solutions, Inc. and the stockholders listed on Annex I thereto.
10.3(2)†	Medidata Solutions, Inc. Amended and Restated 2000 Stock Option Plan.
10.4(2)†	Form of Medidata Solutions, Inc. Amended and Restated 2000 Stock Option Plan Option Agreement.
10.5(1)†	Medidata Solutions, Inc. 2009 Long-Term Incentive Plan.
10.6(1)†	Form of Medidata Solutions, Inc. 2009 Long-Term Incentive Plan Stock Option Agreement.
10.7(1)†	Form of Medidata Solutions, Inc. 2009 Long-Term Incentive Plan Restricted Stock Agreement.
10.8(1)†	Medidata Solutions, Inc. 2009 Employee Stock Purchase Plan.
10.9(2)	Amended and Restated Registration Rights Agreement, dated as of May 27, 2004, by and among Medidata Solutions, Inc. and the Investors named therein.
10.10(2)	Agreement and Plan of Merger, dated as of February 13, 2008, among Medidata Solutions, Inc., FT Acquisition Corp., Fast Track Systems, Inc., and Shareholder Representative Services LLC.
10.11(2)	Loan and Security Agreement, dated as of September 10, 2008, by and among Medidata Solutions, Inc., Medidata FT, Inc. and Silicon Valley Bank.
10.12(2)	First Loan Modification Agreement, dated as of December 31, 2008, by and among Silicon Valley Bank, Medidata Solutions, Inc. and Medidata FT Inc.
10.13(2)	Registration Rights Agreement, dated as of March 14, 2008, by and among Medidata Solutions, Inc., Shareholder Representative Services LLC and Fast Track Systems, Inc.
10.14(2)†	Form of Executive Change in Control Agreement.
10.15(3)	Lease between AGBRI Fannin L.P. and Medidata Solutions, Inc., dated March 13, 2006, as amended on March 8, 2007 and June 3, 2008, for space at the premises located at 1301 Fannin Street, Houston, Texas.
10.16(3)	Lease between ARR Kalimian Realty, L.P. and Medidata Solutions, Inc., dated September 23, 2003, as amended on March 13, 2008, for space at the premises located at 79 Fifth Avenue, New York, New York.
21.1(4)	Subsidiaries of Medidata Solutions, Inc.
23.1*	Consent of Deloitte & Touche LLP.
31.1*	Rule 13a-14(a) or 15d-14 Certification of Chief Executive Officer
31.2*	Rule 13a-14(a) or 15d-14 Certification of Chief Financial Officer
32.1*	Certifications of Chief Executive Officer pursuant to Exchange Act rules 13a-14(b) or 15d-14(b) and 18 U.S.C. Section 1350
32.2*	Certifications of Chief Financial Officer pursuant to Exchange Act rules 13a-14(b) or 15d-14(b) and 18 U.S.C. Section 1350

\* Filed herewith.

† Indicates a management contract or any compensatory plan, contract or arrangement.

- (1) Incorporated by reference to the same numbered exhibit to Medidata Solutions, Inc.'s Amendment No. 3 to Registration Statement on Form S-1 (SEC File No. 333-156935) filed on June 3, 2009.
- (2) Incorporated by reference to the same numbered exhibit to Medidata Solutions, Inc.'s Amendment No. 2 to Registration Statement on Form S-1 (SEC File No. 333-156935) filed on May 15, 2009.
- (3) Incorporated by reference to the same numbered exhibit to Medidata Solutions, Inc.'s Amendment No. 1 to Registration Statement on Form S-1 (SEC File No. 333-156935) filed on March 23, 2009.
- (4) Incorporated by reference to the same numbered exhibit to Medidata Solutions, Inc.'s Registration Statement on Form S-1 (SEC File No. 333-156935) filed on January 26, 2009.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of  
Medidata Solutions, Inc.  
New York, New York

We have audited the accompanying consolidated balance sheets of Medidata Solutions, Inc. (the "Company") as of December 31, 2009 and 2008, and the related consolidated statements of operations, stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2009. Our audits also included the information included in the financial statement schedule listed in the Index at Item 15(a)2. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2009 and 2008, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2009, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Deloitte & Touche LLP

New York, New York

March 15, 2010

**MEDIDATA SOLUTIONS, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(Amounts in thousands, except per share data)

	<u>December 31,</u> <u>2009</u>	<u>December 31,</u> <u>2008</u>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents .....	\$ 39,449	\$ 9,784
Marketable securities .....	36,566	—
Accounts receivable, net of allowance for doubtful accounts of \$197 and \$309, respectively .....	18,887	25,198
Prepaid commission expense .....	3,045	3,330
Prepaid expenses and other current assets .....	3,566	5,950
Deferred income taxes .....	139	303
Total current assets .....	<u>101,652</u>	<u>44,565</u>
Restricted cash .....	532	545
Marketable securities – long-term .....	13,072	—
Furniture, fixtures and equipment, net .....	12,960	13,599
Goodwill .....	9,799	9,799
Intangible assets, net .....	4,404	6,230
Other assets .....	990	452
Total assets .....	<u>\$143,409</u>	<u>\$75,190</u>

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

**MEDIDATA SOLUTIONS, INC.**  
**CONSOLIDATED BALANCE SHEETS, CONTINUED**  
(Amounts in thousands, except per share data)

	<u>December 31,</u> <u>2009</u>	<u>December 31,</u> <u>2008</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable .....	\$ 3,073	\$ 3,316
Accrued payroll and other compensation .....	10,837	7,902
Accrued expenses and other .....	7,543	3,469
Deferred revenue .....	69,842	69,834
Capital lease obligations .....	2,735	4,388
Current portion of debt obligation .....	—	1,500
Total current liabilities .....	<u>94,030</u>	<u>90,409</u>
Noncurrent liabilities:		
Deferred revenue, less current portion .....	27,868	31,787
Capital lease obligations, less current portion .....	781	2,672
Long-term debt .....	—	12,866
Other long-term liabilities .....	498	611
Total noncurrent liabilities .....	<u>29,147</u>	<u>47,936</u>
Total liabilities .....	<u>123,177</u>	<u>138,345</u>
Convertible redeemable preferred stock:		
Series B, par value \$0.01 per share; None authorized, issued and outstanding in 2009; 1,336 shares authorized, issued and outstanding, and liquidation value of \$1,101 in 2008 .....	—	1,099
Series C, par value \$0.01 per share; None authorized, issued and outstanding in 2009; 181 shares authorized, issued and outstanding, and liquidation value of \$179 in 2008 .....	—	179
Series D, par value \$0.01 per share; None authorized, issued and outstanding in 2009; 2,752 shares authorized, issued and outstanding, and liquidation value of \$11,986 in 2008 .....	—	11,967
Commitments and contingencies		
Stockholders' equity (deficit):		
Convertible preferred stock, Series A, par value \$0.01 per share; None authorized, issued and outstanding in 2009; 2,385 shares authorized, issued and outstanding, and liquidation value of \$1,193 in 2008 .....	—	24
Common stock, par value \$0.01 per share; 100,000 shares authorized, 22,900 shares issued and 22,895 outstanding in 2009; 20,000 shares authorized, 7,532 shares issued and 7,035 shares outstanding in 2008 .....	229	75
Additional paid-in capital .....	113,674	22,433
Treasury stock, 5 and 497 shares, respectively .....	(69)	(6,000)
Accumulated other comprehensive loss .....	(246)	(389)
Accumulated deficit .....	<u>(93,356)</u>	<u>(92,543)</u>
Total stockholders' equity (deficit) .....	<u>20,232</u>	<u>(76,400)</u>
Total liabilities and stockholders' equity .....	<u>\$143,409</u>	<u>\$ 75,190</u>

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

**MEDIDATA SOLUTIONS, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(Amounts in thousands, except per share data)

	Year Ended December 31,		
	2009	2008	2007
Revenues			
Application services .....	\$102,541	\$ 73,820	\$ 44,592
Professional services .....	37,859	31,904	18,391
Total revenues .....	140,400	105,724	62,983
Cost of revenues(1)(2)			
Application services .....	23,752	19,647	13,170
Professional services .....	26,219	30,801	33,035
Total cost of revenues .....	49,971	50,448	46,205
Gross profit .....	90,429	55,276	16,778
Operating costs and expenses:			
Research and development(1) .....	22,534	19,340	10,716
Sales and marketing(1)(2) .....	27,452	24,190	15,484
General and administrative(1) .....	31,666	27,474	13,361
Total operating costs and expenses .....	81,652	71,004	39,561
Operating income (loss) .....	8,777	(15,728)	(22,783)
Interest and other (expense) income:			
Interest expense .....	(1,856)	(1,934)	(769)
Interest income .....	132	115	327
Other (expense) income, net .....	(12)	195	78
Total interest and other expense, net .....	(1,736)	(1,624)	(364)
Income (loss) before provision for income taxes .....	7,041	(17,352)	(23,147)
Provision for income taxes .....	1,859	920	515
Net income (loss) .....	\$ 5,182	\$ (18,272)	\$ (23,662)
Earnings (loss) per share:			
Basic .....	\$ 0.33	\$ (2.76)	\$ (3.78)
Diluted .....	\$ 0.25	\$ (2.76)	\$ (3.78)
Weighted average common shares outstanding:			
Basic .....	14,864	6,794	6,385
Diluted .....	20,736	6,794	6,385

(1) Stock-based compensation expense included in cost of revenues and operating costs and expenses is as follows:

Cost of revenues .....	\$ 398	\$ 291	\$ 172
Research and development .....	522	503	183
Sales and marketing .....	1,165	640	448
General and administrative .....	2,645	1,763	491
Total stock-based compensation .....	\$ 4,730	\$ 3,197	\$ 1,294

(2) Amortization expense of intangible assets included in cost of revenues and operating costs and expenses is as follows:

Cost of revenues .....	\$ 1,682	\$ 1,191	\$ —
Sales and marketing .....	144	79	—
Total amortization of intangible assets .....	\$ 1,826	\$ 1,270	\$ —

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

**MEDIDATA SOLUTIONS, INC.**

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)**  
(Amounts in thousands)

	Series A		Common Stock	Additional	Treasury Stock	Accumulated	Total
	Convertible	Other					
	Shares	Amount	Shares	Paid-in	Shares	Comprehensive	
	Amount		Amount	Capital	Amount	Income (Loss)	Deficit
	\$	\$	\$	\$	\$	\$	\$
Balance—January 1, 2007	2,385	6,495	65	1,309	—	22	(49,189)
Comprehensive income (loss):							
Net loss	—	—	—	—	—	—	(23,662)
Foreign currency translation adjustment	—	—	—	—	—	43	43
Total comprehensive income (loss)	—	—	—	—	—	43	(23,662)
Stock options exercised	—	70	1	43	—	—	—
Stock-based compensation	—	—	—	1,294	—	—	1,294
Stock issued for payment of services	—	6	—	80	—	—	80
Accrued preferred stock dividends	—	—	—	(448)	—	—	(448)
Accretion of preferred stock issuance costs	—	—	—	(50)	—	—	(50)
Acquisition of treasury stock	—	—	—	—	497	—	(6,000)
Balance—December 31, 2007	2,385	6,571	66	2,228	497	65	(77,888)
Comprehensive loss:							
Net loss	—	—	—	—	—	—	(18,272)
Foreign currency translation adjustment	—	—	—	—	—	(454)	(454)
Total comprehensive loss	—	—	—	—	—	(454)	(18,272)
Common stock issuance for acquisition	—	864	8	16,987	—	—	16,995
Stock options and warrants exchanged in connection with acquisition	—	—	—	459	—	—	459
Stock options exercised	—	97	1	60	—	—	61
Stock-based compensation	—	—	—	3,197	—	—	3,197
Accrued preferred stock dividends	—	—	—	(448)	—	—	(448)
Accretion of preferred stock issuance costs	—	—	—	(50)	—	—	(50)
Balance—December 31, 2008	2,385	7,532	75	22,433	497	(389)	(76,400)
Comprehensive income (loss):							
Net income	—	—	—	—	—	—	5,182
Foreign currency translation adjustment	—	—	—	—	—	179	179
Net unrealized loss on marketable securities	—	—	—	—	—	(36)	(36)
Total comprehensive income	—	—	—	—	—	143	5,325
Net proceeds from initial public offering	—	6,300	63	75,168	—	—	75,231
Conversion of convertible preferred stock to common stock	(2,385)	9,015	90	11,140	—	—	11,206
Stock options exercised	—	253	3	393	—	—	396
Tax benefit associated with exercise of stock options	—	—	—	56	—	—	56
Stock-based compensation	—	—	—	4,730	—	—	4,730
Restricted stock awards granted	—	—	3	(3)	—	—	—
Acquisition of treasury stock	—	—	—	—	5	—	(69)
Retirement of treasury stock	—	(497)	(5)	(222)	(497)	—	(5,995)
Accrued preferred stock dividends	—	—	—	(21)	—	—	(22)
Accretion of preferred stock issuance costs	—	—	—	(21)	—	—	(21)
Balance—December 31, 2009	—	22,900	229	\$113,674	5	(246)	\$ 20,232

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

**MEDIDATA SOLUTIONS, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(Amounts in thousands)**

	Year Ended December 31,		
	2009	2008	2007
Cash flows from operating activities:			
Net income (loss) . . . . .	\$ 5,182	\$(18,272)	\$(23,662)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization . . . . .	10,580	8,705	4,616
Stock-based compensation . . . . .	4,730	3,197	1,294
Amortization of debt issuance costs . . . . .	434	212	14
Amortization of discounts or premiums on marketable securities . . . . .	136	—	—
Deferred income taxes . . . . .	(244)	156	81
Excess tax benefit associated with exercise of stock options . . . . .	(56)	—	—
Write-off of acquired research and development costs . . . . .	—	700	—
Professional fees paid in common stock . . . . .	—	—	80
Changes in operating assets and liabilities:			
Accounts receivable . . . . .	6,311	(8,915)	(6,792)
Prepaid commission expense . . . . .	285	(48)	(1,494)
Prepaid expenses and other current assets . . . . .	(897)	187	(1,548)
Other assets . . . . .	(99)	59	(362)
Accounts payable . . . . .	(1,011)	(4,182)	3,142
Accrued payroll and other compensation . . . . .	2,935	2,619	(1,379)
Accrued expenses and other . . . . .	3,713	364	(1,321)
Deferred revenue . . . . .	(3,911)	24,648	33,298
Other long-term liabilities . . . . .	88	107	63
Net cash provided by operating activities . . . . .	<u>28,176</u>	<u>9,537</u>	<u>6,030</u>
Cash flows from investing activities:			
Purchases of furniture, fixtures and equipment . . . . .	(4,765)	(4,563)	(3,673)
Purchases of available-for-sale marketable securities . . . . .	(49,810)	—	—
Decrease (increase) in restricted cash . . . . .	13	—	(82)
Fast Track acquisition related costs . . . . .	—	(625)	—
Cash and cash equivalents acquired through acquisition . . . . .	—	1,049	—
Net cash used in investing activities . . . . .	<u>(54,562)</u>	<u>(4,139)</u>	<u>(3,755)</u>
Cash flows from financing activities:			
Proceeds from exercise of stock options . . . . .	396	61	44
Excess tax benefit associated with exercise of stock options . . . . .	56	—	—
Repayment of obligations under capital leases . . . . .	(4,810)	(4,218)	(2,842)
Proceeds from initial public offering, net of underwriting discounts and commissions . . . . .	82,026	—	—
Payment of costs associated with initial public offering . . . . .	(4,292)	(2,503)	—
Payment of preferred stock accumulated accrued dividends . . . . .	(2,282)	—	—
Proceeds from debt obligation . . . . .	—	15,000	8,000
Repayment of debt obligation . . . . .	(15,000)	(10,958)	(555)
Payment of debt issuance costs . . . . .	—	(669)	(192)
Acquisition of treasury stock . . . . .	(69)	—	(6,000)
Net cash provided by (used in) financing activities . . . . .	<u>56,025</u>	<u>(3,287)</u>	<u>(1,545)</u>
Net increase in cash and cash equivalents . . . . .	29,639	2,111	730
Effect of exchange rate changes on cash and cash equivalents . . . . .	26	(73)	—
Cash and cash equivalents—Beginning of period . . . . .	9,784	7,746	7,016
Cash and cash equivalents—End of period . . . . .	<u>\$ 39,449</u>	<u>\$ 9,784</u>	<u>\$ 7,746</u>

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

**MEDIDATA SOLUTIONS, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS, CONTINUED**  
(Amounts in thousands)

	<u>Year Ended December 31,</u>		
	<u>2009</u>	<u>2008</u>	<u>2007</u>
Supplemental disclosures of cash flow information:			
Cash paid during the period for:			
Interest .....	\$ 1,403	\$ 1,652	\$ 708
Income taxes .....	\$ 742	\$ 389	\$ 539
Noncash activities:			
Furniture, fixtures and equipment acquired through capital lease obligations .....	\$ 1,266	\$ 2,741	\$9,088
Furniture, fixtures and equipment acquired but not yet paid for at period-end .....	\$ 2,262	\$ 268	\$ 593
Accrued costs associated with initial public offering .....	\$ —	\$ 778	\$ —
Conversion of convertible redeemable preferred stock to common stock .....	\$11,206	\$ —	\$ —
Accrued preferred stock dividends .....	\$ —	\$ 448	\$ 448
Accretion of preferred stock issuance costs .....	\$ 21	\$ 50	\$ 50
Common stock issuance for acquisition .....	\$ —	\$16,995	\$ —
Stock options and warrants exchanged in connection with acquisition .....	\$ —	\$ 459	\$ —

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

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 1. ORGANIZATION

Medidata Solutions, Inc. (“Medidata” or the “Company”) provides hosted clinical development solutions that enhance the efficiency of its customers’ clinical development processes and optimize their research and development investments. The Company’s solutions allow its customers to achieve clinical results by streamlining the design, planning and management of key aspects of the clinical development process, including protocol development, contract research organization negotiation, investigator contracting, the capture and management of clinical trial data and the analysis and reporting of that data on a worldwide basis.

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Basis of Presentation**—The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”). All intercompany balances and transactions have been eliminated in consolidation.

For purposes of these consolidated financial statements, the years ended December 31, 2009, 2008 and 2007 are referred to as 2009, 2008 and 2007, respectively.

**Use of Estimates**—The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, including deferred revenue, and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

**Revenue Recognition**—The Company derives its revenues from the sale of application services and the rendering of professional services. The Company recognizes revenue when all of the following conditions are satisfied: (1) persuasive evidence of an arrangement exists; (2) service has been delivered to the customer; (3) amount of the fees to be paid by the customer is fixed or determinable; and (4) collection of the fees is reasonably assured or probable.

##### **Application Services**

The Company typically enters into multi-study and single-study arrangements that include the sale of software licenses that provide the customer the “right to use” the software, as well as hosting and other support services, to be provided over a specified term. Multiple study arrangements grant the customer the right to manage a predetermined number of clinical trials simultaneously for a term typically ranging from three to five years. Single-study arrangements allow customers to use the Company’s technology on a per trial basis.

The Company provides its software as a service and recognizes revenues in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 605-10-S99, *Revenue Recognition – SEC Materials*. Revenues from application service arrangements are recognized ratably over the term of the arrangement, beginning with the commencement of the arrangement term, which correlates with the activation of the hosting services, assuming all other revenue recognition criteria are met. The term of the arrangement includes optional renewal periods, if such renewal periods are likely to be exercised.

Revenue for multiple study arrangements where the customer has the ability to self host, or the customer has the contractual right to take possession of the software at any time during the hosting period without significant penalty and it is feasible for the customer to either run the software on its own hardware or contract with another unrelated party to host the software, is recognized in accordance with ASC 985-605, *Software – Revenue Recognition*.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

#### *Professional Services*

The Company also provides a range of professional services that its customers have the ability to utilize on an as-needed basis. These services generally include training, implementation, interface creation, trial configuration, data testing, reporting, procedure documentation and other customer-specific services. Professional services do not result in significant alterations to the underlying software.

In certain situations, when professional services are sold separate and apart from application services, they are recognized as services are rendered.

In accordance with ASC 605-45, *Revenue Recognition – Principal Agent Considerations*, the Company included \$0.6 million, \$1.5 million and \$0.9 million of reimbursable out-of-pocket expenses in professional services revenues in 2009, 2008 and 2007, respectively.

#### *Combined Arrangements*

Arrangements that include both application services and professional services are evaluated under ASC 605-25, *Revenue Recognition – Multiple-Element Arrangements*. The Company applies ASC 605-25 when the customer does not have the right to take possession of the software or cannot do so without incurring a significant penalty, otherwise these arrangements are evaluated under ASC 985-605. The Company accounts for arrangements that include both application services and professional services as a combined single unit of accounting and the related revenues are recognized ratably beginning with the commencement of the arrangement term, assuming all other remaining revenue recognition criteria are met.

Management's estimate of fair value for professional services is used to derive a reasonable approximation for presenting application services and professional services separately in its consolidated financial statements.

#### *Deferred Revenue*

Deferred revenue consists of billings or payments received in advance of revenue recognition and is recognized as the revenue recognition criteria are met. Amounts that have been invoiced are initially recorded in accounts receivable and deferred revenue. The Company invoices its customers in accordance with the terms of the underlying contract, usually in installments in advance of the related service period. Accordingly, the deferred revenue balance does not represent the total contract value of outstanding arrangements. Payment terms are net 30 to 45 days. Deferred revenue that will be recognized during the subsequent 12-month period is recorded as current deferred revenue and the remaining portion as non-current deferred revenue.

In some instances, customers elect to renew their application services arrangements prior to the original termination date of the arrangement. The renewed application services agreement provides support for in-process clinical trials, and includes the "right to use" the software for initial clinical studies. As such, the unrecognized portion of the deferred revenue associated with the initial arrangement is aggregated with the consideration received upon renewal and recognized as revenues over the renewed term of the application services arrangements.

**Cost of Revenues**—Cost of revenues primarily consists of costs related to hosting, maintaining and supporting the Company's application suite and delivering professional services and support. These costs include salaries, benefits, bonuses and stock-based compensation for the Company's data center and professional services staffs. Cost of revenues also includes outside service provider costs, data center and networking expenses, and allocated overhead. Overhead, such as depreciation expense, rent and utilities, is allocated to all departments based on relative headcount. As such, general overhead expenses are reflected in cost of revenues and each operating expense category. These costs are expensed as incurred.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

**Software Development Costs**—Costs incurred in the research and development of new software products and enhancements to existing software products are expensed as incurred under ASC 730, *Research and Developments*. Internally developed software costs are capitalized under ASC 985-20, *Software – Costs of Software to Be Sold, Leased, or Marketed*, when technological feasibility is reached which is not until a working model is developed, and the functionality is tested and determined to be compliant with all federal and international regulations. As such, no internally developed software costs have been capitalized during 2009, 2008 or 2007.

**Stock-Based Compensation**—The Company follows ASC 718, *Compensation – Stock Compensation*, to account for all of its stock-based compensation plans. The fair value of each option grant is estimated on the date of grant using the Black-Scholes pricing model. Prior the completion of the Company's initial public offering ("IPO") in June 2009 (see Note 3), the Company estimated its expected stock price volatility based upon observed option-implied volatilities for a group of peer companies, taking into account the stage of the Company as compared to its peers. Subsequent to the completion of the IPO, the Company continues to use 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 estimated its weighted-average useful life based on the likely date of exercise as opposed to the actual life of the 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. The fair value of each nonvested restricted stock award grant is measured as if the nonvested restricted stock was vested and issued on the grant date. Prior to the Company's IPO, the Company used an independent third-party specialist to perform the valuation of its common stock as part of the stock options calculations. The fair value of all stock-based compensation awards is amortized to expense on a straight-line basis over the vesting period.

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

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.

**Comprehensive Income**—ASC 220, *Comprehensive Income*, established standards for reporting and displaying comprehensive income into its components (revenues, expenses, gains and losses) in a full set of general-purpose financial statements. The Company's other comprehensive income components results from foreign currency translation adjustments, as well as unrealized holding gains and losses for investments in available-for-sale securities.

**Cash and Cash Equivalents**—The Company considers all money market accounts and other highly liquid investments purchased with original maturities of three months or less to be cash and cash equivalents. The fair value of cash and cash equivalents approximates the amounts shown on the consolidated financial statements.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

**Marketable Securities**—In accordance with ASC 320-10, *Investments-Debt and Equity Securities*, and based on the Company's intentions regarding these instruments, the Company classifies substantially all of its fixed income marketable securities as available-for-sale. Accordingly, marketable securities are reported at fair value, with all unrealized holding gains and losses reflected in stockholders' equity. If it is determined that an investment has an other than temporary decline in fair value, the Company recognizes the investment loss in other income (expense), net in the consolidated statements of operations. The Company periodically evaluates the investments to determine if impairment charges are required.

**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 collectibility of accounts receivable and prior bad debt experience. Accounts receivable are written off when deemed uncollectible.

**Prepaid Commission Expense** — For arrangements where revenue is recognized over the relevant contract period, the Company capitalizes related sales commissions that have been paid and recognizes these expenses over the period the related revenue is recognized. Commissions are payable to the Company's sales representatives upon payment from the customer. The Company amortized prepaid commissions of \$6.1 million, \$4.7 million and \$2.7 million in 2009, 2008 and 2007, respectively, which are included within sales and marketing expense in the consolidated statements of operations.

**Restricted Cash**—Restricted cash represents deposits made to fully collateralize certain standby letters of credit issued in connection with office lease arrangements.

**Furniture, Fixtures and Equipment**—Furniture, fixtures and equipment consists of furniture, computers, other office equipment, purchased software for internal use, and leasehold improvements recorded at cost. Depreciation is computed on the straight-line method over five years for furniture and fixtures, and three to five years for computer equipment and software. Leasehold improvements are amortized on a straight-line basis over the shorter of the lease term or their estimated useful lives. Improvements are capitalized while expenditures for repairs and maintenance are charged to expense as incurred.

**Goodwill and Intangible Assets**—On March 17, 2008, the Company acquired Fast Track Systems, Inc. ("Fast Track") (See Note 5) which generated significant goodwill and intangible assets. Goodwill represents the excess of consideration paid over the fair value of net assets acquired in business combinations. Under ASC 350-20, *Goodwill and Other Intangible Assets*, goodwill is no longer amortized and is instead evaluated for impairment using a two-step process that is performed at least annually on October 1 of each year, or whenever events or circumstances indicate that impairment may have occurred. The first step is a comparison of the fair value of an internal reporting unit with its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying value, goodwill of the reporting unit is not considered impaired and the second step is unnecessary. If the carrying value of the reporting unit exceeds its fair value, a second test is performed to measure the amount of impairment by comparing the carrying amount of the goodwill to a determination of the implied value of the goodwill. If the carrying amount of the goodwill is greater than the implied value, an impairment loss is recognized for the difference. The Company determined that there was no impairment of goodwill as of December 31, 2009 and 2008.

The implied value of goodwill is determined as of the test date by performing a purchase price allocation, as if the reporting unit had just been acquired, using currently estimated fair values of the individual assets and liabilities of the reporting unit, together with an estimate of the fair value of the reporting unit taken as a whole. The estimate of the fair value of the reporting unit is based upon information available regarding prices of similar groups of assets, or other valuation techniques including present value techniques based upon estimates of future cash flow.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The definite-lived intangible assets are recorded at cost less accumulated amortization. Amortization of acquired technology and database is computed using the straight-line method over five years and amortization of customer relationships and customer contracts is computed using an accelerated method which reflects the pattern in which the economic benefits derived from the related intangible assets are consumed or utilized.

**Impairment of Long-Lived Assets**—Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such asset may be impaired. The Company subjects long-lived assets to a test of recoverability based on undiscounted cash flows expected to be generated by such assets while utilized by the Company and cash flows expected from disposition of such assets. If the assets are impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Management determined that there was no impairment of long-lived assets as of December 31, 2009 and 2008.

**Convertible Redeemable Preferred Stock**—At the time of issuance, preferred stock was recorded at gross proceeds received less issuance costs. The carrying value was increased to the redemption value using the straight-line method, which approximated the effective interest method, over the period from the date of issuance to the earliest date of redemption. The carrying value was also increased by cumulative unpaid dividends. As a result of the IPO, all outstanding convertible redeemable preferred stock was automatically converted into common stock (see Note 3).

**Treasury Stock**—Shares of the Company's common and preferred stock that are repurchased are recorded as treasury stock at cost and included as a component of stockholders' equity (deficit).

**Foreign Currency Translation**—The financial statements of the Company's foreign subsidiaries are translated in accordance with ASC 830-30, *Foreign Currency Matters – Translation of Financial Statements*. The reporting currency for the Company is the U.S. dollar. The functional currencies of the Company's subsidiaries in the United Kingdom and Japan are the British Pound Sterling and the Japanese Yen, respectively. Accordingly, the assets and liabilities of the Company's foreign subsidiaries are translated into U.S. dollars using the exchange rate in effect at each balance sheet date. Revenue and expense accounts of the Company's foreign subsidiaries are translated using an average rate of exchange during the period. Foreign currency translation adjustments are accumulated as a component of other comprehensive income (loss) as a separate component of stockholders' equity (deficit). Gains and losses arising from transactions denominated in foreign currencies are primarily related to intercompany accounts that have been determined to be temporary in nature and accordingly, are recorded directly to the statement of operations. Foreign currency transaction (losses) gains are included in general and administrative expenses and were \$(0.5) million in 2009, insignificant in 2008 and \$(0.4) million in 2007.

**Fair Value of Financial Instruments**—The carrying amounts of cash and cash equivalents, accounts receivable, 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. Amounts outstanding under long-term debt agreements are considered to be carried at their estimated fair values because they bear interest at rates which approximate market. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

**Concentration of Credit Risk**—Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities and accounts receivable. The Company has policies that limit the amount of credit exposure to any one issuer. The Company performs ongoing credit evaluations of its customers and maintains an allowance for potential losses, but does

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

not require collateral or other security to support customers' receivables. The Company's credit risk is further mitigated because its customer base is diversified both geographically and by industry sector.

Cash and cash equivalents and restricted cash are deposited with major financial institutions and, at times, such balances with any one financial institution may be in excess of FDIC-insured limits. As of December 31, 2009, \$40.5 million in cash and cash equivalents and restricted cash were deposited in excess of FDIC-insured limits.

As of December 31, 2009 and 2008 and each of the three years in the period ended December 31, 2009, total revenues recognized and total accounts receivable balance due related to the following significant customers are as follows:

	<u>Percentage of Revenues</u>			<u>Percentage of Accounts Receivable</u>	
	<u>For the year ended December 31,</u>			<u>As of December 31,</u>	
	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2009</u>	<u>2008</u>
Customer A .....	10%	10%	12%	10%	6%
Customer B .....	10	11	9	3	5
Customer C .....	<u>8</u>	<u>9</u>	<u>13</u>	<u>2</u>	<u>3</u>
Total (Customers A to C) .....	<u>28%</u>	<u>30%</u>	<u>34%</u>	<u>15%</u>	<u>14%</u>

**Indemnifications**—The Company indemnifies its customers against claims that software or documentation purchased from or made available by the Company infringes upon a copyright, patent or the proprietary rights of others. Such indemnification provisions are disclosed in accordance with ASC 460-10-50-4, *Disclosure About a Guarantor's Obligation*, as further interpreted by ASC 460-10-55-31 – 34. In the event of a claim, the Company agrees to obtain the rights for continued use of the software for the customer, to replace or modify the software or documentation to avoid such claim or to provide a credit to the customer for the unused portion of the software license. A liability may be recognized under ASC 450-20, *Loss Contingencies*, if information prior to the issuance of the consolidated financial statements indicates that it is probable that a liability has been incurred at the balance sheet date and the amount of the loss can be reasonably estimated.

**Segment Information**—As defined by ASC 280, *Segment Reporting*, the Company operates as a single segment, as management makes operating decisions and assesses performance based on one single operating unit. The Company recorded revenues in 2009, 2008 and 2007 in the following geographic areas, based on the country in which revenues were generated (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Revenues:			
United States of America .....	\$ 92,939	\$ 71,762	\$42,249
Japan .....	15,096	10,370	8,029
United Kingdom .....	11,970	10,612	5,624
Other .....	<u>20,395</u>	<u>12,980</u>	<u>7,081</u>
Total .....	<u>\$140,400</u>	<u>\$105,724</u>	<u>\$62,983</u>

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The following table summarizes long-term assets by geographic area as of December 31, 2009 and 2008 (in thousands):

	<b>2009</b>	<b>2008</b>
Long-term assets:		
United States of America .....	\$39,895	\$29,136
United Kingdom .....	976	982
Japan .....	886	507
Total .....	\$41,757	\$30,625

**Recently Issued Accounting Pronouncements**—In December 2007, the FASB issued Statement of Financial Accounting Standards (“SFAS”) No. 141(R), *Business Combinations*, (currently under ASC 805) and SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements – an amendment of ARB No. 51*, (currently under ASC 810-10-65-1). SFAS No. 141(R) is required to be adopted concurrently with SFAS No. 160 and is effective for business combination transactions for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. Early adoption is prohibited. Application of SFAS No. 141(R) and SFAS No. 160 is required to be adopted prospectively, except for certain provisions of SFAS No. 141(R) and SFAS No. 160, which are required to be adopted retrospectively. Business combination transactions accounted for before adoption of SFAS No. 141(R) should be accounted for in accordance with SFAS No. 141, *Business Combinations*, and that accounting previously completed under SFAS No. 141 should not be modified as of or after the date of adoption of SFAS No. 141(R). The Company adopted SFAS No. 141(R) and SFAS No. 160 on January 1, 2009 and the adoption did not have an impact on the Company’s results of operations, financial position and cash flows.

In May 2009, the FASB issued SFAS No. 165, *Subsequent Events*, (currently under ASC 855-10), which provides guidance on management’s assessment of subsequent events and establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. SFAS No. 165 is effective prospectively for interim or annual financial periods ended after June 15, 2009. The Company adopted SFAS No. 165 in the second quarter of 2009. In February 2010, the FASB issued Accounting Standards Update (“ASU”) No. 2010-09, *Amendments to Certain Recognition and Disclosure Requirements*, to amend certain requirements from ASC 855-10. ASU No. 2010-09 requires Securities and Exchange Commission (“SEC”) filers to evaluate subsequent events through the date the financial statements are issued, but exempts SEC filers from disclosing the date through which subsequent events have been evaluated previously required by ASC 855-10. ASU No. 2010-09 is effective immediately.

In June 2009, the FASB issued SFAS No. 166 (currently under ASU No. 2009-16, *Accounting for Transfers of Financial Assets*) and SFAS No. 167 (currently under ASU No. 2009-17, *Improvements to Financial Reporting by Enterprises Involved with Variable Interest Entities*). ASU No. 2009-16 amends the derecognition guidance and eliminates the exemption from consolidation for qualifying special-purpose entities (“QSPEs”) in ASC 860, *Transfer and Servicing*. As a result, a transferor will need to evaluate all existing QSPEs to determine whether they must now be consolidated in accordance with ASU No. 2009-17, which amends the consolidation guidance applicable to variable interest entities. The amendments will significantly affect the overall consolidation analysis under ASC 810-10, *Consolidation*, and all entities and enterprises currently within the scope of ASC 810-10, as well as QSPEs that are currently excluded from the scope of ASC 810-10. ASU No. 2009-16 is effective for financial asset transfers occurring after the beginning of an entity’s first fiscal year that begins after November 15, 2009. ASU No. 2009-17 is effective as of the beginning of the first fiscal year that begins after November 15, 2009. The adoption of these statements is not expected to have a material impact on the Company’s results of operations, financial position and cash flows.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In June 2009, the FASB issued SFAS No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles – a replacement of SFAS No. 162*, (currently under ASC 105-10). SFAS No. 168 establishes the FASB ASC as the source of authoritative accounting principles recognized by the FASB to be applied by nongovernmental entities in the preparation of financial statements in conformity with GAAP. Rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. SFAS No. 168 is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The Company adopted SFAS No. 168 in the third quarter of 2009 and quoted the accounting literature references contained in these consolidated financial statements in accordance with the FASB ASC.

In October 2009, the FASB issued ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements*. ASU No. 2009-13 amends the current guidance on arrangements with multiple deliverables under ASC 605-25, *Revenue Recognition – Multiple-Element Arrangements*, to (a) eliminate the separation criterion that requires entities to establish objective and reliable evidence of fair value for undelivered elements; (b) establish a selling price hierarchy to help entities allocate arrangement consideration to the separate units of account; (c) eliminate the residual allocation method which will be replaced by the relative selling price allocation method for all arrangements; and (d) significantly expand the disclosure requirements. ASU No. 2009-13 is effective for new or materially modified arrangements in fiscal years beginning on or after June 15, 2010. Early adoption is permitted. If early adoption is elected and the period of adoption is not the beginning of the fiscal year, retrospective application from the beginning of the fiscal year of adoption and additional disclosure are required. Retrospective application for all prior periods presented in the financial statements is also permitted, but not required. The Company is currently evaluating the impact, if any, of these provisions of ASU No. 2009-13 on its consolidated financial statements.

In October 2009, the FASB also issued ASU No. 2009-14, *Certain Revenue Arrangements that Include Software Elements*. ASU No. 2009-14 amends the scoping guidance for software arrangements under ASC 985-605, *Software – Revenue Recognition*, to exclude tangible products that contain software elements and nonsoftware elements that function together to interdependently deliver the product's essential functionality. Such tangible products being excluded from ASU No. 2009-14 will instead fall under the scope of ASU No. 2009-13. The FASB also provided several considerations and examples for entities applying this guidance. The effective date for ASU No. 2009-14 is consistent with ASU No. 2009-13 as stated above. The Company is currently evaluating the impact, if any, of these provisions of ASU No. 2009-14 on its consolidated financial statements.

In January 2010, the FASB issued ASU No. 2010-06, *Improving Disclosure about Fair Value Measurement*. ASU 2010-06 amends ASC 820-10, *Fair Value Measurements and Disclosures*, to add new requirements for disclosure about transfers into and out of Levels 1 and 2 and separate disclosures about purchases, sales, issuances, and settlements relating to Level 3 measurements. It also clarifies existing fair value disclosures about the level of disaggregation and about inputs and valuation techniques used to measure fair value. ASU No. 2010-06 is effective for interim and annual reporting periods beginning after December 15, 2009, except for the disclosures about purchases, sales, issuances, and settlements relating to Level 3 measurements, which are effective for interim and annual reporting periods beginning after December 15, 2010. The Company is currently evaluating the impact, if any, of these provisions of ASU No. 2010-06 on its consolidated financial statements.

### 3. STOCKHOLDERS' EQUITY

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

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In January 2009, the Company amended its certificate of incorporation to increase the authorized common stock by 5.0 million shares to 25.0 million shares. As part of the amendment, the Company also increased the authorized shares to provide for an additional 0.5 million shares under the 2000 Stock Option Plan to approximately 3.9 million shares.

In June 2009, the Company completed an IPO, issuing 6.3 million shares of common stock at a public offering price of \$14.00 per share. As a result of the offering, the Company received net proceeds of \$75.2 million, after deducting underwriting discounts and commissions of \$6.2 million and offering expenses of \$6.8 million. In addition, the underwriters exercised in full their over-allotment option to purchase an additional 0.9 million shares of common stock from certain selling stockholders. The Company did not receive any proceeds from the sale of shares by the selling stockholders.

Upon completion of the IPO, the fourth amended and restated certificate of incorporation was filed to increase the Company's authorized capital stock to 105.0 million shares, comprised of 100.0 million shares of common stock and 5.0 million shares of preferred stock.

In December 2009, the Company also completed a secondary offering in which certain selling stockholders sold a total of approximately 6.3 million shares of common stock. The Company did not receive any proceeds but incurred approximately \$0.6 million of offering expenses in connection with this secondary offering. Such offering expenses were expensed as incurred.

**Preferred Stock**—As a result of the IPO, all outstanding convertible preferred stock was automatically converted into 9.0 million shares of common stock. In addition, the Company paid out all accumulated accrued dividends of \$2.3 million to preferred stockholders at conversion.

As of December 31, 2008, the aggregate unpaid cumulative dividends were \$2.1 million, which had been accreted to the carrying value of the Series B, C and D convertible redeemable preferred stock.

**Treasury Stock**—In June 2009, the Company retired approximately 0.5 million shares of treasury stock acquired in October 2007 from certain executive officers and directors within the Company in connection with the Company's stock repurchase agreement. The excess of the repurchase price over par value of common stock of approximately \$6.0 million was charged to accumulated deficit upon the retirement of the treasury stock.

From time to time, the Company granted restricted stock awards to its employees pursuant to the terms of the 2009 Long-Term Incentive Plan (the "2009 Plan"). Under the provisions of the 2009 Plan, the plan participants are allowed to cover their income tax withholding obligation through net shares upon the vesting of their restricted shares. On the date of vesting of restricted shares, the Company determines the number of vested shares to be withheld based on their fair value at closing price of the Company's common stock on the vesting date, which equals to the amount of plan participants' income tax withholding obligation. Those withheld shares are then held in the Company's treasury stock at cost for future reissuance. In 2009, the Company withheld 4,544 shares at an average price of \$15.05 in connection with the vesting of its restricted stock awards. The Company accounted for the treasury stock under the cost method.

#### 4. MARKETABLE SECURITIES AND FAIR VALUE

The Company began to invest in marketable securities in October 2009. 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 substantially consist of one investment in a money market fund. Marketable securities primarily consist of high quality commercial paper, corporate bonds, U.S.

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

government obligations and bank certificates of deposit. 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 December 31, 2009 (in thousands):

	<u>Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Estimated Fair Value</u>
Commercial paper and corporate bonds . . . . .	\$33,374	\$ 17	\$ (49)	\$33,342
U.S. Treasury and U.S. government agency debt securities . . . . .	9,599	—	(4)	9,595
Bank certificates of deposit . . . . .	6,701	—	—	6,701
Total . . . . .	<u>\$49,674</u>	<u>\$ 17</u>	<u>\$(53)</u>	<u>\$49,638</u>

Contractual maturities of the Company's marketable securities as of December 31, 2009 are summarized as follows (in thousands):

	<u>Cost</u>	<u>Estimated Fair Value</u>
Due in one year or less . . . . .	\$36,550	\$36,566
Due after one through five years . . . . .	13,124	13,072
Total . . . . .	<u>\$49,674</u>	<u>\$49,638</u>

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 December 31, 2009 (in thousands):

	<u>In Loss Position for Less Than 12 Months</u>	
	<u>Fair Value</u>	<u>Gross Unrealized Losses</u>
Commercial paper and corporate bonds . . . . .	\$15,341	\$(49)
U.S. Treasury and U.S. government agency debt securities . . . . .	9,595	(4)
Total . . . . .	<u>\$24,936</u>	<u>\$(53)</u>

None of the Company's marketable securities has been in a continuous unrealized loss position for more than twelve months as of December 31, 2009.

At December 31, 2009, the Company had a gross unrealized loss of approximately \$0.1 million 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.

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

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 December 31, 2009 are temporary in nature. Accordingly, the Company did not consider that its investments in marketable securities were other-than-temporarily impaired as of December 31, 2009. In addition, as the Company did not dispose any of its marketable securities during 2009, no realized gains or losses were recognized.

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;
  - 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 input 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 December 31, 2009 are summarized as follows (in thousands):

	<b>Fair Value Measurement Using</b>			<b>Total</b>
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	
Money market fund	\$27,114	\$ —	\$—	\$27,114
Commercial paper and corporate bonds	—	33,342	—	33,342
U.S. Treasury and U.S. government agency debt securities	5,995	3,600	—	9,595
Bank certificates of deposit	—	6,701	—	6,701
<b>Total</b>	<b>\$33,109</b>	<b>\$43,643</b>	<b>\$—</b>	<b>\$76,752</b>

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 fund and U.S. Treasury debt securities 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, U.S. government agency debt securities and bank certificates of deposit 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

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

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.

**5. ACQUISITION**

On March 17, 2008, the Company acquired Fast Track, a provider of clinical trial planning solutions. With this acquisition, the Company extended its ability to serve customers throughout the clinical research process with solutions that improve efficiencies in protocol development and trial planning, contracting and negotiation. The Company paid total consideration of approximately \$18.1 million, which consisted of the issuance of approximately 864 thousand shares of the common stock in exchange for all of Fast Track's existing preferred stock and common stock as well as approximately 26 thousand shares of common stock reserved for the exercise of outstanding warrants and vested employee stock options. The Company utilized an independent third-party specialist to perform a valuation of its common stock at the date of the acquisition, which resulted in a value of \$19.66 per share. Fast Track's operations have been included in the Company's consolidated financial statements after the March 17, 2008 acquisition date.

In allocating the purchase price based on estimated fair values, the Company recorded \$9.8 million of goodwill, \$7.5 million of identifiable intangible assets, \$0.1 million of net tangible assets and \$0.7 million of in-process research and development which was written off subsequent to the acquisition in March 2008 because its technological feasibility had not been established.

**6. GOODWILL AND INTANGIBLE ASSETS**

Changes in carrying amount of goodwill for 2009 and 2008 are as follows (in thousands):

Balance as of January 1, 2008 .....	\$ —
Goodwill from acquisition of Fast Track .....	9,799
Balance as of December 31, 2008 .....	9,799
Activities during 2009 .....	—
Balance as of December 31, 2009 .....	<u>\$9,799</u>

Intangible assets are summarized as follows (in thousands):

	<u>As of December 31, 2009</u>		
	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Amount</u>
Acquired technology .....	\$2,400	\$ (860)	\$1,540
Database .....	1,900	(681)	1,219
Customer relationships .....	1,600	(224)	1,376
Customer contracts .....	1,600	(1,331)	269
Total .....	<u>\$7,500</u>	<u>\$(3,096)</u>	<u>\$4,404</u>

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

	As of December 31, 2008		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired technology .....	\$2,400	\$ (380)	\$2,020
Database .....	1,900	(301)	1,599
Customer relationships .....	1,600	(80)	1,520
Customer contracts .....	1,600	(509)	1,091
Total .....	\$7,500	\$(1,270)	\$6,230

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

Years ending December 31,	
2010 .....	\$1,459
2011 .....	1,377
2012 .....	1,308
2013 .....	260
2014 .....	—

**7. FURNITURE, FIXTURES AND EQUIPMENT**

Furniture, fixtures and equipment consists of the following (in thousands):

	As of December 31,	
	2009	2008
Computer equipment and purchased software .....	\$ 28,401	\$ 25,935
Leasehold improvements .....	2,898	1,555
Furniture and fixtures .....	1,009	951
Total furniture, fixtures and equipment .....	32,308	28,441
Less: accumulated depreciation and amortization .....	(19,348)	(14,842)
Furniture, fixtures and equipment, net .....	\$ 12,960	\$ 13,599

Included in furniture, fixtures and equipment, net as of December 31, 2009 and 2008 are computer equipment and purchased software acquired under capital leases of approximately \$3.2 million and \$7.2 million, respectively, net of related accumulated depreciation of approximately \$12.0 million and \$9.1 million, respectively. Depreciation and amortization expense for furniture, fixtures and equipment, including assets acquired under capital leases, was \$8.8 million in 2009, \$7.4 million in 2008 and \$4.6 million in 2007. Depreciation of assets acquired under capital leases was \$5.2 million in 2009, \$4.8 million in 2008 and \$3.1 million in 2007.

**8. DEBT**

In November 2003, the Company entered into a Note Purchase Agreement, as subsequently amended at various dates through June 2005 (collectively, the “Term Note A”) with one of its preferred shareholders (the “Lender”). In December 2005, the Company entered into an Amended and Restated Note Purchase Agreement with the Lender extending the maturity date of Term Note A and issuing a second note (“Term Note B”). In October 2007, the Company entered into an Amended and Restated Note Purchase Agreement extending the maturity of Term Note A and Term Note B and issuing a third note (“Term Note C”). Term Note A, Term Note B and Term Note C were secured by all of the Company’s assets.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In September 2008, the Company entered into a new senior secured credit facility (“New Credit Facility”) with an unrelated lender that included a \$15.0 million term loan (“New Term Loan”), which was fully drawn at closing, and a \$10.0 million revolving credit line (“Revolving Credit Line”), all of which was undrawn at inception. The New Credit Facility was secured effectively by all of the assets of the Company. Proceeds of the New Term Loan were used to repay all outstanding notes payable, which included Term Note A of \$1.5 million, Term Note B of \$1.5 million, and Term Note C of \$8.0 million, and the remaining \$4.0 million was used for general corporate purposes. The New Term Loan and Revolving Credit Line matures in September 2013 and the outstanding principal of the New Term Loan amortizes in quarterly installments of \$375 thousand that began on March 31, 2009 up through the date of maturity at which time a lump sum payment of any remaining unpaid balance would be due. In addition, the New Term Loan also includes an excess cash flow recapture feature which may require the Company to make additional principal payments beginning in April 2010.

The New Term Loan and Revolving Credit Line bear interest at prime rate plus 2.5% until March 31, 2009 and, thereafter, will bear interest at prime rate plus 2.25%. In December 2008, the New Credit Facility was amended to define “prime rate” as 4.5% or the lender’s most recently announced prime rate, whichever is greater. However, if the Company can satisfy the minimum fixed charge coverage ratio covenant as of December 31, 2009 or March 31, 2010, the applicable margin thereafter will be reduced to 1.5%. As of December 31, 2009 and 2008, such effective interest rate was 6.75% and 7.00%, respectively. In addition, any undrawn Revolving Credit Line is subject to a quarterly unused fee at an annual rate of 0.5% of the average undrawn balance. The Company is entitled to prepay the New Credit Facility at its option, subject to a payment of a premium on such prepayments during the first three years after closing, which decreases over the three-year period from 3% of the amount prepaid to 1%. The New Credit Facility is also subject to mandatory prepayment under certain specified circumstances.

Due to the lock-box arrangement and the subjective acceleration clause contained in the New Credit Facility agreement, borrowings, if any, under the Revolving Credit Line will be classified as a current liability in accordance with ASC 470-10-45-5, *Classification of Revolving Credit Agreements Subject to Lock-Box Arrangement and Subjective Acceleration Clauses*.

In July 2009, the Company used a portion of its net proceeds from the IPO to prepay the entire outstanding indebtedness of the New Term Loan. The total payoff amount of \$14.7 million included the outstanding principal balance of \$14.3 million, as well as accrued interest and termination fees of \$0.4 million. Also in July 2009, the Company executed a standby letter of credit of approximately \$0.2 million in connection with an office lease with the lender, which resulted in a reduction of the available amount under the Revolving Credit Line. As of December 31, 2009, approximately \$9.8 million of the Revolving Credit Line was still available for future borrowings.

In connection with the New Credit Facility, the Company incurred legal and other costs of approximately \$0.7 million, which have been deferred and amortized over the term of the New Credit Facility. As a result of the prepayment of New Term Loan in July 2009, approximately \$0.3 million of the unamortized debt issuance costs was written off, representing the proportional decrease in borrowing capacity of the New Credit Facility. As of December 31, 2009, the remaining unamortized balance was approximately \$0.2 million and is now classified in other long-term liabilities on the accompanying consolidated balance sheet.

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The following table summarizes the interest expense incurred on long-term debt for the three years ended December 31, 2009 (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Term Note A .....	\$ —	\$ 104	\$135
Term Note B .....	—	101	149
Term Note C .....	—	556	242
New Term Loan .....	533	317	—
New Term Loan prepayment termination fees .....	429	—	—
Unused Revolving Credit Line fee .....	51	15	—
Total .....	<u>\$1,013</u>	<u>\$1,093</u>	<u>\$526</u>

The New Credit Facility requires quarterly compliance with certain financial covenants, as amended, which include minimum profitability, liquidity, maximum allowable capital expenditures, and fixed charge coverage ratio.

**9. CAPITAL LEASES**

The Company leases certain equipment under noncancelable capital lease agreements which provide for total future minimum annual lease payments as follows (in thousands):

Years ending December 31,	
2010 .....	\$ 2,864
2011 .....	736
2012 .....	<u>70</u>
Total minimum lease payments .....	3,670
Less amount representing interest .....	<u>(154)</u>
Present value of net minimum capital lease payments .....	3,516
Less current portion .....	<u>(2,735)</u>
Capital lease obligations, excluding current portion .....	<u>\$ 781</u>

**10. STOCK-BASED COMPENSATION**

In 2000, the Company adopted the 2000 Stock Option Plan (the “2000 Plan”) under which 0.5 million shares of the Company’s common stock were reserved for issuance to employees, directors, consultants and advisors. Since such date, the Company had amended the 2000 Plan to provide for approximately 3.9 million authorized shares. Options granted under the 2000 Plan may be incentive stock options, nonqualified stock options or restricted stock options. Incentive stock options may be granted only to employees. Options generally vest 25% one year from the grant date and 75% ratably over the next three years and expire after ten years. Stock options were issued at the current estimated market price on the date of the grant. Prior to the Company’s IPO in June 2009 (see Note 3), the Company used an independent third-party specialist to perform the valuation of its common stock as part of the stock options valuation. Following the IPO, the Company does not intend to grant any additional stock options under the 2000 Plan.

In May 2009, the Company adopted the 2009 Plan which became effective upon the completion of the IPO in June 2009. The 2009 Plan is a comprehensive incentive compensation plan under which the Company can grant equity-based and other incentive awards to employees, directors, consultants and advisors. A total of 2.5 million shares of common stock are reserved for issuance under the 2009 Plan which may be in the form of

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

stock options, restricted stock awards and other forms of stock-based incentives, including stock appreciation rights and deferred stock rights. Stock option awards are issued with an exercise price equal to the current market price on the date of the grant and generally vest over four years. During the restriction period, unvested restricted stock awards are not eligible for disposition but entitle the holder to all rights of a holder of common stock, including dividends and voting rights. Unvested restricted stock awards and their associated dividends are subject to forfeiture under certain circumstances.

Also in May 2009, the Company adopted the 2009 Employee Stock Purchase Plan (the “ESPP”) which became effective upon the completion of IPO in June 2009. A total of 0.5 million shares of common stock are reserved for issuance to eligible employees as defined under the ESPP. Under the ESPP, eligible employees are allowed to purchase shares of the Company’s common stock at a 5% discount from the share price at the end of the offering period. The ESPP qualifies for favorable tax treatment under Section 423 of the Internal Revenue Code and meets the requirements of non-compensatory plan in accordance with ASC 718-50-25, *Employee Share Purchase Plans*. The enrollment of ESPP has not begun and therefore there was no activity associated with the ESPP during 2009.

The Company accounts for the stock-based compensation in accordance with ASC 718. For the three years ended December 31, 2009, the components of stock-based compensation expense were summarized in the following table (in thousands):

	<b>2009</b>	<b>2008</b>	<b>2007</b>
Stock options .....	\$4,063	\$3,197	\$1,294
Restricted stock awards .....	667	—	—
Total stock-based compensation .....	<u>\$4,730</u>	<u>\$3,197</u>	<u>\$1,294</u>

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:

	<b>2009</b>	<b>2008</b>	<b>2007</b>
Expected volatility .....	63%	59%	62%
Expected life .....	6 years	6 years	6 years
Risk-free interest rate .....	2.53%	3.06%	4.26%
Dividend yield .....	—	—	—

The following table summarizes the activity under the stock option plans as of December 31, 2009, and changes during the year then ended (in thousands, except per share data):

	<b>Number of Shares</b>	<b>Weighted- Average Exercise Price</b>	<b>Weighted- Average Remaining Contractual Term (years)</b>	<b>Aggregate Intrinsic Value</b>
Outstanding at January 1, 2009 .....	2,432	\$ 6.63		
Granted .....	688	14.73		
Canceled .....	(54)	17.93		
Exercised .....	(253)	1.57		
Outstanding at December 31, 2009 .....	<u>2,813</u>	<u>\$ 8.85</u>	<u>6.81</u>	<u>\$20,305</u>
Exercisable at December 31, 2009 .....	<u>1,790</u>	<u>\$ 5.67</u>	<u>5.72</u>	<u>\$18,395</u>
Expected to vest at December 31, 2009 .....	<u>960</u>	<u>\$14.35</u>	<u>8.70</u>	<u>\$ 1,823</u>

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The weighted-average grant-date fair value of stock options granted during 2009, 2008 and 2007 was \$8.60, \$11.56 and \$9.86, respectively. The total intrinsic value of stock options exercised during 2009, 2008 and 2007 was \$3.6 million, \$1.9 million and \$1.3 million, respectively.

The following table summarizes the status of the Company's nonvested restricted stock awards as of December 31, 2009, and changes during the year then ended (in thousands, except per share data):

	<b>Number of Shares</b>	<b>Weighted- Average Grant- Date Fair Value</b>
Nonvested at January 1, 2009 .....	—	\$ —
Granted .....	297	14.02
Vested .....	(11)	14.00
Cancelled .....	<u>—</u>	—
Nonvested at December 31, 2009 .....	<u>286</u>	\$14.02

As of December 31, 2009, there was a total of \$12.5 million of unrecognized compensation cost related to all non-vested stock-based compensation awards granted, as recorded in accordance with ASC 718. This cost is expected to be recognized over a weighted-average remaining period of 1.57 years. The total fair value of shares vested during 2009, 2008 and 2007 was \$4.4 million, \$2.7 million and \$1.1 million, respectively.

**11. EARNINGS PER SHARE**

The Company follows ASC 260, *Earnings Per Share*, in calculating earnings per share. Basic earnings (loss) per share is calculated by dividing net income (loss) available to common stockholders by the weighted-average number of shares outstanding during the period. Diluted earnings (loss) per share includes the determinants of basic net income (loss) 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. For 2008 and 2007, the diluted loss per share excluded the impact of the conversion of all preferred stock and stock options since their effect would have been anti-dilutive.

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

A reconciliation of the numerator and denominator of basic earnings per share and diluted earnings per share for the three years ended December 31, 2009 are shown in the following table (in thousands, except per share data):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
<b>Numerator</b>			
Numerator for basic earnings (loss) per share:			
Net income (loss) . . . . .	\$ 5,182	\$(18,272)	\$(23,662)
Preferred stock dividends and accretion . . . . .	(243)	(498)	(498)
Net income (loss) available to common stockholders . . . . .	<u>4,939</u>	<u>(18,770)</u>	<u>(24,160)</u>
Numerator for diluted earnings (loss) per share:			
Effect of dilutive preferred stock . . . . .	243	—	—
Net income (loss) available to common stockholders with assumed conversion . . . . .	<u>\$ 5,182</u>	<u>\$(18,770)</u>	<u>\$(24,160)</u>
<b>Denominator</b>			
Denominator for basic earnings (loss) per share:			
Weighted average common shares outstanding . . . . .	14,864	6,794	6,385
Denominator for diluted earnings (loss) per share:			
Dilutive potential common shares:			
Preferred stock . . . . .	4,470	—	—
Stock options . . . . .	1,372	—	—
Restricted stock awards . . . . .	30	—	—
Weighted average common shares outstanding with assumed conversion . . . . .	<u>20,736</u>	<u>6,794</u>	<u>6,385</u>
Basic earnings (loss) per share . . . . .	<u>\$ 0.33</u>	<u>\$(2.76)</u>	<u>\$(3.78)</u>
Diluted earnings (loss) per share . . . . .	<u>\$ 0.25</u>	<u>\$(2.76)</u>	<u>\$(3.78)</u>

The following common stock equivalents were excluded from the calculation of diluted earnings (loss) per share since the effects are anti-dilutive (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Number of potential shares that are antidilutive:			
Preferred stock . . . . .	—	9,015	9,015
Stock options and nonvested stock . . . . .	<u>1,079</u>	<u>2,026</u>	<u>1,588</u>
Total . . . . .	<u>1,079</u>	<u>11,041</u>	<u>10,603</u>

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**12. INCOME TAXES**

The components of income tax expense (benefit) for the three years ended December 31, 2009 are as follows (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Current expense:			
Federal and state .....	\$ 1,386	\$ —	\$ —
Foreign .....	717	764	434
Current expense .....	<u>2,103</u>	<u>764</u>	<u>434</u>
Deferred (benefit) expense:			
Federal and state .....	2,211	(7,687)	(11,130)
Foreign .....	66	112	81
Valuation allowance .....	(2,521)	7,731	11,130
Deferred (benefit) expense .....	<u>(244)</u>	<u>156</u>	<u>81</u>
Total income tax expense .....	<u>\$ 1,859</u>	<u>\$ 920</u>	<u>\$ 515</u>

A reconciliation of income tax expense and the amount computed by applying the statutory federal income tax rate to the income (loss) before provision for income taxes is as follows (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Tax computed at federal statutory rate .....	\$ 2,394	\$(5,900)	\$(7,869)
Increase (decrease) in income taxes resulting from:			
Valuation allowance .....	(2,551)	5,142	7,684
Stock-based compensation .....	639	606	259
Undistributed earnings from foreign subsidiaries ...	543	726	397
State tax expense, net of federal benefit .....	440	5	—
Non-deductible bonuses .....	217	158	—
Non-deductible items .....	160	179	45
Foreign tax rate differential .....	17	4	(1)
Total income tax expense .....	<u>\$ 1,859</u>	<u>\$ 920</u>	<u>\$ 515</u>

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

As of December 31, 2009 and 2008, the components of deferred tax assets (liabilities) are as follows (in thousands):

	<u>As of December 31,</u>	
	<u>2009</u>	<u>2008</u>
<b>Assets:</b>		
Net operating loss carryforwards . . . . .	\$ 20,242	\$ 32,215
Deferred revenue . . . . .	12,198	4,536
Depreciable and amortizable assets . . . . .	3,100	—
Foreign tax credit . . . . .	2,327	1,753
Stock based compensation . . . . .	1,780	831
Other . . . . .	1,738	1,813
	<u>41,385</u>	<u>41,148</u>
<b>Liabilities:</b>		
Depreciable and amortizable assets . . . . .	(4,401)	(1,838)
Management fee . . . . .	(262)	(258)
Foreign exchange translation . . . . .	(142)	(148)
Unrealized gain on foreign exchange . . . . .	—	(128)
Other . . . . .	(120)	(59)
	<u>(4,925)</u>	<u>(2,431)</u>
Gross deferred tax liabilities . . . . .	(4,925)	(2,431)
Less: valuation allowance . . . . .	(36,184)	(38,705)
Net deferred tax assets . . . . .	<u>\$ 276</u>	<u>\$ 12</u>
Net current deferred tax assets . . . . .	\$ 139	\$ 303
Net long-term deferred tax assets (included in other assets) . . . . .	475	36
Net current deferred tax liabilities (included in accrued expenses and other) . . . . .	(12)	—
Net long-term deferred tax liabilities (included in other long-term liabilities) . . . . .	(326)	(327)
Net deferred tax assets . . . . .	<u>\$ 276</u>	<u>\$ 12</u>

Income (loss) before provision for income taxes by jurisdiction is as follows (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
U.S. income (loss) . . . . .	\$5,440	\$(19,234)	\$(24,724)
Non-U.S. income . . . . .	1,601	1,882	1,577
Total income (loss) before provision for income taxes . . . . .	<u>\$7,041</u>	<u>\$(17,352)</u>	<u>\$(23,147)</u>

As of December 31, 2009 and 2008, the Company had approximately \$56.2 million and \$83.7 million, respectively, of federal net operating loss carryforwards available to offset future taxable income expiring from 2012 through 2028. The Company also had net operating loss carryforwards for state and local income tax purposes available to offset future state and local taxable income. The total amount of state and local net operating loss carryforwards in aggregate was \$191.0 million and \$248.1 million as of December 31, 2009 and 2008, respectively, expiring from 2010 through 2028. Certain net operating loss carryforwards were obtained through the acquisition of Fast Track in 2008.

Section 382 of the Internal Revenue Code (“Section 382”) imposes limitations on a corporation’s ability to utilize net operating loss carryforwards if it experiences an “ownership change”. In general terms, an ownership change results from transactions that increase the ownership of certain stockholders in the stock of a corporation

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

by more than 50 percentage points over a three-year period. In the event that an ownership change occurs, the utilization of the corporation's net operating loss carryforwards would be subject to an annual limitation under Section 382 determined by multiplying the total value of the corporation's stock at the time of the ownership change by the applicable long-term tax exempt interest rate. Any unused net operating loss carryforwards under the annual limitation may be carried over and utilized in later years.

Due to the cumulative impact of the Company's IPO in June 2009, coupled with its secondary offering in December 2009, an ownership change as defined by Section 382 occurred in early December 2009. As a result, \$56.2 million of the Company's federal net operating loss carryforwards at December 31, 2009 will be subject to an annual base limitation of approximately \$14 million. This limitation was not imposed until the ownership change occurred in December 2009 and therefore was applied on a prorated basis in 2009 for taxable income generated subsequent to the ownership change, resulting in federal income tax expense. Due to this Section 382 limitation, as well as the temporary suspension of net operating loss carryforward utilization in the State of California and income taxes incurred in other state and local jurisdictions, the Company incurred a provision for current domestic income taxes of approximately \$1.4 million.

In assessing the realizability of deferred tax assets, the Company assesses the available positive and negative evidence to estimate if sufficient future taxable income will be generated to utilize its existing deferred tax assets. A significant piece of objective negative evidence evaluated was the cumulative loss incurred over the three year period ended December 31, 2009. Such objective evidence limits the ability to consider other subjective evidence such as the Company's projections for future growth. Based on this evaluation, as of December 31, 2009, the Company has provided a valuation allowance against the majority of its domestic net deferred tax assets as their future utilization remains uncertain at this time. The amount of the deferred tax asset considered realizable, however, could be adjusted if estimates of future taxable income during the carryforward period change or if objective negative evidence in the form of cumulative losses is no longer present and additional weight may be given to subjective evidence such as the Company's projections for growth. The net change in the valuation allowance was a decrease of \$2.5 million in 2009, an increase of \$7.7 million in 2008 and an increase of \$11.1 million in 2007.

As of December 31, 2009, the Company also had a domestic net deferred tax assets of approximately \$0.3 million, primarily related to the alternative minimum tax credit carryforwards, which are subject to limitations on their utilization. As these carryforwards are not currently subject to expiration dates, the Company believes it is more likely than not that such tax benefit will be realized and therefore no valuation allowance has been recorded to reduce this deferred tax asset. The Company also had an insignificant amount of foreign net deferred tax assets relating to its foreign subsidiaries as of December 31, 2009 and 2008, which the Company believes are realizable as its foreign subsidiaries are taxpayers in those jurisdictions.

The Company recorded its unrecognized tax benefits in accrued expenses and other on the accompanying consolidated balance sheet. No reserves for uncertain tax positions were recorded pursuant to ASC 740-10 in 2008 and 2007. The aggregate changes in the balance of the Company's gross unrecognized tax benefits during 2009 were as follows (in thousands):

	<u>2009</u>
Gross unrecognized tax benefits as of beginning of period . . . . .	\$—
Increases related to tax positions from prior fiscal years . . . . .	<u>151</u>
Total gross unrecognized tax benefits as of end of period . . . . .	<u><u>\$151</u></u>

As of December 31, 2009, approximately \$0.1 million of unrecognized benefits would affect our effective tax rate, if recognized. The Company recognizes accrued interest and penalties, if any, related to uncertain tax positions through income tax expense. The aggregate amounts of recognized interest and penalties in 2009 and

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

accrued interest and penalties as of December 31, 2009 were insignificant. The Company believes that its income tax positions and deductions will be sustained on audit and does not anticipate adjustments that will result in a material change to its financial position during the next twelve months. The Company’s federal tax returns for 2002-2008 remain open to examination by the Internal Revenue Service (“IRS”) in their entirety. In addition, the Company’s state tax returns for 1999-2008 also remain open with respect to state taxing jurisdictions. The Company’s 2007 federal tax return is currently under an examination by the IRS and has yet been notified if there is any issue relating to this examination.

**13. RELATED PARTY TRANSACTION**

In 2008, one customer whose former chief executive is a member of the Company’s board of directors used the Company’s products and services. This board member resigned from his position with this customer during the third quarter of 2008 to assume a position with another company. The Company had recognized a total of approximately \$0.4 million of application and professional services revenues from this customer in 2008. Accounts receivable relating to this customer was insignificant as of December 31, 2008.

**14. COMMITMENTS AND CONTINGENCIES**

**Operating Leases**—The Company leases certain equipment and office space under noncancelable operating lease agreements which provide for total future minimum annual lease payments as follows:

Years ending December 31,	
2010 .....	\$ 3,209
2011 .....	2,677
2012 .....	1,954
2013 .....	1,370
2014 .....	328
Thereafter .....	<u>906</u>
Total minimum lease payments .....	<u>\$10,444</u>

Rent expense was approximately \$3.6 million in 2009, \$2.7 million in 2008 and \$1.8 million in 2007. The Company had several outstanding standby letters of credit issued in connection with office leases in the amount of \$0.7 million and \$0.5 million as of December 31, 2009 and 2008, respectively. These standby letters of credit were fully collateralized with restricted cash and Revolving Credit Line as of December 31, 2009 and restricted cash as of December 31, 2008.

**401(k) Plan**—The Company has a pre-tax savings and profit sharing plan (the “Plan”) under Section 401(k) of the Internal Revenue Code (the “Code”) for substantially all employees. Under the Plan, eligible employees are able to contribute up to 15% of their compensation not to exceed the maximum IRS annual deferral amount. Effective January 1, 2008, the Company provides a 50% match of the first 4% of eligible compensation contributed each period by the employees. The maximum match by the Company is 2% of such eligible compensation. Prior to 2008, the Company was not required to and did not make any matching contributions under the Plan. The Company incurred expense of \$0.7 million and \$0.6 million relating to matching contributions in 2009 and 2008, respectively.

**Legal Matters**—The Company is subject to legal proceedings and claims which have arisen in the ordinary course of business. The Company records an estimated liability for these matters when an adverse outcome is considered to be probable and can be reasonably estimated.

## MEDIDATA SOLUTIONS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In 2006, it was claimed that certain applications offered to the Company's customers potentially infringed on intellectual property rights held by a third party (the "Claimant"). As a result of negotiations with the Claimant, the Company entered into a license and settlement agreement in June 2007, pursuant to which the Company licensed the intellectual property held by the Claimant for use in its future sales to customers and settled all past infringement claims. The Company paid a settlement amount of \$2.2 million to the Claimant in 2007. In June 2009, the Claimant initiated a lawsuit against the Company claiming breach of contract. The complaint includes allegations that the Company has failed to pay unspecified royalties relating to sales of the Company's products. The Company believes that the allegations in this lawsuit are without merit. The Company filed an answer in July 2009, denying all material allegations and asserting numerous affirmative defenses. The Company also asserted counterclaims for a declaratory judgment that no royalties are owed with respect to sales of the Company's products, as well as a counterclaim for Claimant's breach of the license and settlement agreement. The parties are now engaged in the discovery process. Since the probable outcome and the future economic impact of this litigation on the Company remain uncertain, the Company is unable to develop an estimate of its potential liability, if any, as it relates to this litigation. As a result, the Company did not record a liability as of December 31, 2009. The Claimant also filed the patent infringement lawsuits against two of the Company's customers. See Indemnifications section below for details.

In 2006, a former employee of the Company made a claim seeking compensation of approximately \$1.6 million in relation to a wrongful dismissal lawsuit. Subsequently, the claim was reduced to approximately \$1.4 million as of December 31, 2008. The court rendered its decision on January 15, 2009, which awarded approximately \$0.1 million to the plaintiff. The plaintiff filed a notice of appeal in September 2009, which remains pending. The Company will continue to vigorously defend this claim until it is ultimately resolved. The Company had accrued approximately \$0.7 million which is included in accrued payroll and other compensation on the accompanying consolidated balance sheets as of December 31, 2009 and 2008.

**Indemnification**—In 2008, two customers requested the Company to indemnify them in connection with patent infringement lawsuits filed by the Claimant who also filed a lawsuit against the Company in June 2009 as discussed above. The Company agreed to defend and indemnify one of these customers with respect to the allegations, claims, and defenses relating to its use of the Company's software. As the estimated indemnification obligation concerning this claim was determined to be probable and could be reasonably estimated, the Company had accrued approximately \$0.5 million which was included in accrued expenses and other on the accompanying consolidated balance sheet as of December 31, 2009 and in general and administrative expenses on the accompanying consolidated statements of operations in 2009. In February 2010, the Company reached an agreement in principle with this customer, which if consummated would result in the Company paying \$0.5 million to fully settle this indemnification obligation. To date, no claims have been asserted against the second customer with respect to its use of the Company's products.

**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 insignificant.

**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 two-year period 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; (c) immediate vesting of any remaining unvested equity awards; and (d) a tax gross up payment under Section 280G of the Code sufficient to reimburse the officer for 50% of any excise tax payable as a result of any termination payments following a change in control, if applicable.

**MEDIDATA SOLUTIONS, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**15. UNAUDITED SELECTED QUARTERLY FINANCIAL DATA**

The following table presents the Company's unaudited selected quarterly financial data for 2009 and 2008 (in thousands, except for share data):

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
For the fiscal year 2009:				
Total revenues .....	\$33,602	\$34,028	\$35,217	\$37,553
Gross profit .....	21,319	21,344	22,753	25,013
Operating income .....	2,288	773	2,622	3,094
Net income .....	1,694	200	1,549	1,739
Earnings per share:				
Basic .....	\$ 0.22	\$ 0.01	\$ 0.07	\$ 0.08
Diluted .....	\$ 0.10	\$ 0.01	\$ 0.06	\$ 0.07
For the fiscal year 2008:				
Total revenues .....	\$20,979	\$25,753	\$27,810	\$31,182
Gross profit .....	8,310	12,607	15,220	19,139
Operating (loss) income .....	(7,832)	(5,488)	(2,876)	468
Net loss .....	(8,560)	(5,904)	(3,395)	(413)
Loss per share:				
Basic .....	\$ (1.40)	\$ (0.87)	\$ (0.51)	\$ (0.08)
Diluted .....	\$ (1.40)	\$ (0.87)	\$ (0.51)	\$ (0.08)

**MEDIDATA SOLUTIONS, INC.**

**Exhibits and Financial Statement Schedules**

Schedule II—Valuation and Qualifying Accounts

The allowance for doubtful accounts as of December 31, 2009 and 2008 was \$0.2 million and \$0.3 million, respectively. The table below details the activity in the account for the three years ended December 31, 2009 (in thousands):

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Balance at beginning of period . . . . .	\$ 309	\$ 32	\$ 24
Charged to costs and expenses . . . . .	—	280	8
Deductions . . . . .	<u>(112)</u>	<u>(3)</u>	<u>—</u>
Balance at end of period . . . . .	<u>\$ 197</u>	<u>\$309</u>	<u>\$ 32</u>

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## Board of Directors

### **Tarek A. Sherif**

Chairman & Chief Executive Officer  
Medidata Solutions

### **Glen M. de Vries**

President  
Medidata Solutions

### **Carlos Dominguez** [2,3\*]

Senior Vice President  
Office of the Chairman and CEO  
Cisco Systems, Inc.

### **Neil M. Kurtz, M.D.** [1,3]

President & Chief Executive Officer  
Golden Living

### **George McCulloch** [1,3]

Partner  
Level Equity Management

### **Peter Sobiloff** [2]

Managing Director  
Insight Venture Partners

### **Robert B. Taylor** [1\*,2\*]

Senior Vice President for Finance and Administration  
The Colonial Williamsburg Foundation

#### COMMITTEE KEY

1 = AUDIT

2 = NOMINATING AND GOVERNANCE

3 = COMPENSATION

\* COMMITTEE CHAIR

## Executive Officers

### **Tarek A. Sherif**

Chairman & Chief Executive Officer

### **Glen M. de Vries**

President

### **Bruce D. Dalziel**

Chief Financial Officer

### **Steven I. Hirschfeld**

Executive Vice President  
Sales and Alliances

### **Lineene N. Krasnow**

Executive Vice President  
Product and Marketing

## Investor Relations

### **Hulus Alpay**

Director  
Investor Relations  
halpay@mdsol.com  
+1 212 419 1025

## Annual Meeting

**Tuesday, May 18, 2010 | 10:00 am Eastern Time**

Hilton Woodbridge  
120 Wood Avenue South  
Iselin, NJ 08830  
USA

## Medidata Solutions Stock

Medidata's common stock is listed on the NASDAQ  
Global Market. Ticker symbol: **MDSO**

## Independent Registered Public Accounting Firm

### **Deloitte & Touche LLP**

Two World Financial Center  
New York, NY 10281

## Transfer Agent

If you are a shareholder and have questions regarding your account, including change of address, stock certificates, stock transfer, account status and other administrative services, please contact:

### **American Stock Transfer & Trust Company**

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Medidata technology is used in clinical studies conducted in over 100 countries.

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