medidata®

Medidata Solutions Worldwide

Optimizing Clinical Trials: Concept to Conclusion™

ANNUAL REPORT

At Medidata Solutions

innovation

is the key driver of our value.

Medidata Solutions is a leading global provider of SaaS clinical development solutions that enhance the efficiency of customers' clinical trials from concept to conclusion. For over 11 years, Medidata has consistently brought next-generation innovation to the life science industry to lower the total cost of clinical development with technology that addresses strategy and planning, resource management, study design and start-up, and study execution.

Tarek A. Sherif, Chairman & Chief Executive Officer

Dear Medidata Shareholder:

By enabling our customers to optimize their clinical trials from concept to conclusion, we are well positioned to continue driving profitable growth.

In our first full year as a public company, we strengthened our position as the leading independent SaaS (Software as a Service) vendor in clinical development. By providing transformational clinical technology solutions, we generated strong top-line growth, particularly from mid-size pharma and biotech customers and our CRO (contract research organization) partners. We also experienced dramatic bottom-line growth, with record earnings highlighting the excellent operating leverage in our business model. Looking to the future, we are very excited about the potential opportunities in our industry. By enabling our customers to optimize their clinical trials from concept to conclusion, we are well positioned to continue driving profitable growth.

2010 was a year of important milestones for Medidata. In the past decade, product innovation has been a key driver of value for us, and last year we executed on an aggressive upgrade and new product launch schedule. We introduced products that provide new, different and better processes for clinical development, enabling more effective decision-making. We also released more product upgrades than at any other time in our history. Our industry-leading tools are helping our clients remove barriers to their productivity, reduce the total cost of global clinical development and accelerate the time to bring life-enhancing drugs to market.

I am exceptionally proud of the way Medidata's customer-facing teams serve as trusted advisors to our clients, emphasizing collaboration and committing to their success. Medidata's strong execution on our clients' behalf has been a foundation of our success and is driving our market leadership.

Today, our customers are working in a very dynamic global environment shaped by many internal and external pressures. Clinical development and the life sciences industry are being reshaped by mergers, acquisitions, payor pressures, budget constraints, increasing trial complexity and deeper focus on proof of safety. In the face of these changes, Medidata is in an excellent position to continue to build shareholder value by supplying the most advanced technologies to this increasingly efficiency-focused sector.

We continued to **gain share** in the large, growing and strategically important clinical technology market.

Our Growth

One key to our success is that our products are responsive to the evolving challenges our customers face. This focus drove Medidata's healthy sales growth in 2010. In the past year, we continued to gain share in the large, growing and strategically important clinical technology market. New enterprise deals, contract renewals with top global companies and new customers all contributed to our growth.

In 2010, our solutions were embraced by customers across all sectors and geographies. In particular, we generated significant new business through our CRO partners, from the expansive mid-market and from academic research centers. Unlike some of our competitors, our products' configurability, scalability and flexibility allow us to target opportunities beyond the traditional large biopharma customer base.

2010 was a record year for Medidata both operationally and financially. Operationally, we improved our market penetration, ending the year with a record 219 customers, up from 173 in the prior year. We once again benefitted from strong customer loyalty and revenue retention, which was over 98%. This can be attributed to superior customer service, the quality of our software and our highly reliable infrastructure.

We finished 2010 with record revenues of $166 million, an increase of 19% year over year. Improved revenue mix allowed us to achieve record gross margins of 69%, a five-percentage point increase from the previous year. This resulted in gross profits for the year of $111 million, an increase of $21 million. Non-GAAP operating income* increased $15 million to $39 million, compared with $24 million in 2009. The improvement in our operating profitability was a direct result of our growth, scalable business model and success in controlling operating costs. We expect these trends to continue in 2011.

Optimizing Clinical Trials:

Concept

Strategy & Planning

Medidata Designer®
Optimal study design through guided protocol development informed by industry benchmarks

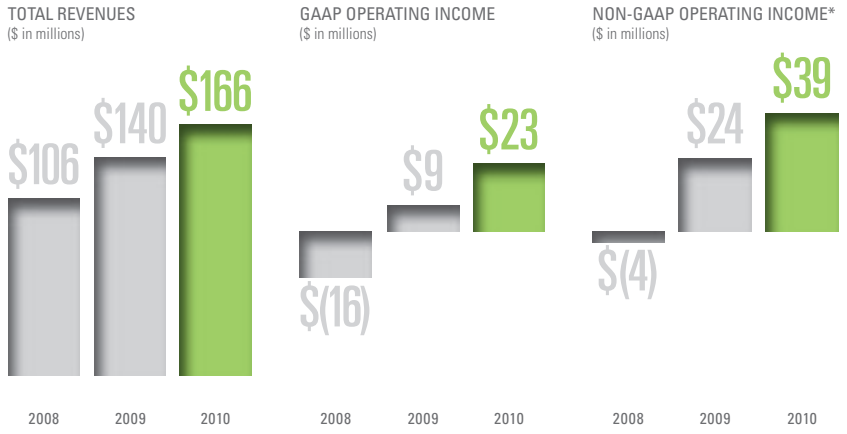
Medidata Insights™
Advanced reporting and analytics driving informed decision-making for enhanced operational efficiency, utilizing industry-wide data

Resource Management

Medidata Designer®
Optimal study design through highlight of key trial procedures and data collection, allowing reduction of unnecessary steps

Medidata Grants Manager®
Comprehensive industry data-driven system for accurately and rapidly developing investigator grant proposals, and efficiently completing site negotiations

Medidata CRO Contractor®
Data-based planning and management tool optimizing outsourcing budgets for research sponsors



*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.

We continue to innovate and are redefining markets with our new, different and better technologies.

Our Strategy

A keen understanding of our customers' goals helps to focus our strategic direction and strengthens our competitive position in the industry. The biopharmaceutical industry spends approximately $53 billion annually on clinical trials, but less than $2 billion on technology such as ours. Medidata's goal is to ensure that money spent on our technology has an exponential impact on savings and leverage from the balance of the $51 billion investment.

We continue to innovate and are redefining markets with our new, different and better technologies. Our solutions are designed to combine information sharing with a high degree of interoperability, optimizing each stage of a clinical trial. Medidata products address workflow inefficiencies, reduce redundant data entry, make data management more efficient and allow easy interchange for all clinical trial data.

Conclusion

Study Design & Set-up

Medidata Designer®
Optimal study design through collaboration tool, accelerates design cycle time and improves standards compliance

iMedidata™
Clinical portal that enables rapid training and activation of study doctors and sponsor staff through streamlined administration and access to on-line courses

Medidata Rave®
Industry-leading electronic data capture, management and reporting platform with powerful study build tools facilitating rapid study development, configurable for trials of all sizes, complexities and languages

Medidata Balance™
Next-generation randomization and trial supply management with powerful simulation capability that enables users to design sophisticated studies without intensive programming

Study Execution

iMedidata™
Clinical portal that provides single-sign on for all Medidata studies, streamlining access to the electronic data capture and management system as well as other software across multiple studies and organizations

Medidata Rave®
Industry-leading electronic data capture, management and reporting platform that streamlines clinical trials, minimizes data redundancies and enables collaboration across the study team, with tools that enable efficient study monitoring and capture and reporting of safety events

Medidata Balance™
Next-generation randomization and trial supply management fully integrated with the data capture and management system for efficient execution at study sites

We are well positioned to further strengthen our leadership position in the clinical technology market and increase shareholder value.

For example, the Medidata Designer® protocol authoring tool helps our customers begin their trials with focus on the end goal. It has been estimated that up to 30% of data collected as specified by protocols is never used for an FDA submission. By providing a solution to help our customers understand the potential impact of extraneous data in their trial design, we help them save effort, money and time.

As another example, Medidata Balance™, introduced this year, takes a unified, next-generation approach to patient randomization and trial drug supply management. Using cutting edge web-based technology, standards-based architecture and advanced integration capabilities, Balance is a self-service, EDC-integrated solution. It has the ability to redefine an established market that is currently dominated by telephone-based systems with heavy service requirements.

Overall, we introduced 17 significant new versions for existing products in 2010. All of our products are designed to offer an intuitive user interface, provide a superior customer experience and be self-service, driving a lower total cost of ownership and accelerating the progress of clinical trials. Our goal for 2011 is to continue to offer enhancements for all of our solutions.

Our Future

Our SaaS model, favorable business mix and increasing scale drove significant operating leverage and resulted in record earnings in 2010. In 2011, we will continue to focus on the growth opportunities in our core markets, while driving adoption of our newer products. With our strong operating performance as a foundation, we aim to drive improved trial efficiency from concept to conclusion.

On behalf of our employees worldwide, I would like to thank our customers and investors for their continued support and confidence. We are well positioned to further strengthen our leadership position in the clinical technology market and increase shareholder value, based on our strong operating leverage, rapid earnings growth and ability to generate significant operating cash flow. We look forward to the challenges and opportunities that 2011 brings and are focused on delivering another year of strong execution.

Sincerely,

Tarek Sherif

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, 2010

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	**13-4066508**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
79 Fifth Avenue, 8th Floor New York, New York	**10003**
(Address of principal executive offices)	**(Zip Code)**

(212) 918-1800
(Registrant's telephone number, including area code)

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

As of June 30, 2010, 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 $323,422,758 based on the closing sale price for the registrant's common stock on the NASDAQ Global Market on that date of $15.49 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 7, 2011, the registrant had 24,142,971 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 21, 2011, prepared for the Annual Meeting of Stockholders scheduled for May 31, 2011. 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, 2010
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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, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or 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 software-as-a-service, or SaaS, based clinical technology solutions that enhance the efficiency of our customers' clinical development processes from concept to conclusion, optimizing 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; trial planning and management; user and learning management; randomization and trial supply management; monitoring; Serious Adverse Events capture; clinical data capture, management and reporting; advanced trial reporting and analytics; 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 for clinical trials from concept to conclusion. Medidata Designer®, a clinical trial protocol development tool, enables customers to design 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. Medidata Grants Manager® enables our customers to increase the efficiency of trial budgeting and investigator contracting as well as improves compliance. Medidata CRO Contractor® facilitates CRO outsourcing, budgeting and contract negotiation. Medidata Balance® is a customer-enabled randomization development and execution application used for randomization and trial supply management, or RTSM, addressing not only the management of the randomization and supplies function, but also the design of the study. Medidata Balance offers a self-service model, and all sites interact with the randomization system from within Medidata Rave.

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 ASP*ire* to Win program. In 2010, Astellas Pharma, AstraZeneca, Johnson & Johnson, Roche and Takeda Pharmaceutical were our largest customers measured by revenues. Among these customers, Johnson & Johnson, Roche and AstraZeneca accounted for approximately 11%, 11% and 10% of our total revenues, respectively, in 2010. No other customer accounted for 10% or more of our total revenues during 2010.

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 2010, we generated $166.4 million in revenues, a 18.5% increase over 2009. 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; plan and execute randomized subject allocation methodologies; manage clinical trial supplies; 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 solutions*. 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. Our Medidata Rave platform can be purchased in various configurations, depending on customer preference, that provide advanced support for clinical activities such as study build, safety reporting and investigator data monitoring. 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 incorporate 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 and phases. Our applications operate on a SaaS model, 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 around the world, 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. In 2010, we launched additional products for critical clinical activities including randomized allocation of subjects to trial arms. 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 ASP*ire* 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 customers to efficiently develop and execute advanced support allocation and clinical trial supply plans; aggregate and report patient information in support of other clinical operations functions such as adverse event reporting and investigator monitoring; and access and manage applications through a clinical portal. 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, or SDV, 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 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.
  - ***Targeted SDV***, which provides clinical research sponsors and CROs with an auditable and scalable partial SDV solution that supports risk-based site monitoring strategies, reducing the time and cost of monitoring clinical data collection.

Medidata Designer. Medidata Designer, our protocol development tool, enhances the efficiency of clinical trial start-up with intuitive tools that guide clinical research teams through the study design and set-up processes with the application of business rules and metrics on end-to-end clinical data. 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 Balance. Medidata Balance is a dynamic randomization and trial supply management solution that is unified with the Medidata Rave EDC user experience. Medidata Balance streamlines the process of developing, building and implementing subject allocation plans, empowering customer and CRO trial teams to perform design and set-up functions on their own, including full integration with Medidata Rave. Medidata Balance also provides sites with a randomization interface with Medidata Rave, reducing effort and risk in patient allocation. Medidata Balance replaces the existing implementation-heavy processes of alternative randomization and supply trial management systems, most often offered through integrated voice response systems, or IVRS, with a short time-to-value, on demand approach.

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 over

one quarter of a million grants and contracts and approximately 27,000 protocols in over 1,500 treatment indications. Medidata Grants Manager Contracting, is a recently introduced extension of the application, which allows sponsors to efficiently create, manage and track budget negotiations with hundreds of investigative sites simultaneously. The contracting extension enables automated interaction between sponsors and sites, allowing budget agreements to be reached more quickly and efficiently than with common manual processes.

Medidata CRO Contractor. Medidata CRO Contractor provides an analytic tool that brings industry benchmarks to CRO outsourcing, budgeting and negotiation, parallel to Medidata Grants Manager. Our database includes reliable cost benchmarks from contracts with more than 550 global CROs.

iMedidata. iMedidata is a hosted portal application designed to give access to and provide a superior user experience for all Medidata offerings. iMedidata allows investigative sites and sponsor study teams to get started on trial activities through self-managed account administration and single sign-on for all accounts it manages, as well as providing a centralized learning management system, integrated with user management, for training compliance.

Hosting. Medidata hosting provides world class services to the vast majority of client utilizing our products with state of the art virtualization technologies to optimize the delivery of our application services, manage storage effectively and maintain quality of service. These virtualization capabilities provide the ability to quickly scale to increased customer usage.

Advanced monitoring services are provided on a 24 by 7 basis by trained Medidata staff to ensure that usage is delivered in a consistent manner. Advanced backup and storage frameworks are in place, and regionally-diverse data centers and trained engineering teams are in place to react quickly in the case of a disaster.

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 82.0%, 73.0% and 69.8% of our total revenues in 2010, 2009 and 2008 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.

In order to help customers optimize their clinical trial process, we offer consulting services to advise customers on ways to optimize their clinical development processes from trial concept to conclusion. Our consultants use their extensive clinical expertise to leverage best practices in the use of clinical technologies, streamline and enhance trial processes and increase customers' competitiveness in the market. We also offer Medidata Insights benchmarks and reports to help customers evaluate their clinical trial performance—both across the organization and against industry benchmarks.

Our professional services represented 18.0%, 27.0% and 30.2% of our total revenues in 2010, 2009 and 2008, 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, 2010, we had 151 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 $25.8 million, $22.5 million and $19.3 million in research and development expenses for the years ended December 31, 2010, 2009 and 2008, 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, 2010, we had 98 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 ASP*ire* 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 AC Medical, Inc., BLCPro, Brightech International, Chiltern International Ltd., CMIC Co., Ltd., Cognizant, Covance Inc., Eliassen Group, EPS International Co., Ltd., Global Research Services, LLC, ICON Clinical Research, Inc., INC Research, LLC, inVentiv Clinical Solutions, Kendle International Inc., LAXAI, Pharma, Ltd., LSK Global Pharma Services, MediCROstar, Novella Clinical, Novotech, Omnicare Inc., Paradigm Infotech Inc., PAREXEL International, PharmaNet Development Group, Inc., PharPoint Research, Inc., PPD, PRA International, Quintiles Transnational Corp., Rho, Inc., Sumisho Computer Systems Corporation, Synteract, Inc. 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 User Groups*. 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 and diagnostics companies, institutions (which include academic research centers, government and other non-profit organizations), clinical research organizations and other entities engaged in clinical trials. As of December 31, 2010, we had 219 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 and Diagnostics

bioMérieux
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

Ludwig Institute for Cancer Research
Northwestern University

Our five largest customers accounted for 43%, 46% and 46% of our revenues in 2010, 2009 and 2008, respectively. In 2010, Johnson & Johnson, Roche and AstraZeneca accounted for approximately 11%, 11% and 10% of our total revenues, 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. 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. We compete with firms such as BioClinica, Datatrak International, Merge eClinical, OmniComm Systems, Oracle Clinical and Perceptive Informatics. 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, more product offerings 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 Grants Manager," "Medidata Rave" and "ASP*ire* to Win." We have filed trademark applications for "Medidata Balance" and "iMedidata." We also hold several domain names, including the domain names "mdsol.com" and "imedidata.com." Although we do not rely heavily on patent protection, we hold two patents 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.

In addition, if any of our software solutions is covered by third-party patents or other intellectual property rights, we could be subject to infringement actions. For example, 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. 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, which is described in Note 14, "Commitments and Contingencies—Legal Matters," to the consolidated financial statements included in this Annual Report on Form 10-K. 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, 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 customers. Two of our ASP*ire* to Win partners have requested us to indemnify them in connection with patent infringement lawsuits filed by the same third party referenced above. 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 March 2010, we reached a final agreement with this partner and paid a settlement amount of $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. In March 2011, we were named in a separate compliant for patent infringement filed by DataTrak International, Inc. 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 this claim.

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.

Employees

As of December 31, 2010, we had a total of 598 employees, of which 222 were employed at our headquarters and additional locations in New York, New York, 269 at other locations in the United States, 64 in the United Kingdom and 43 in Japan. As of December 31, 2010, we had 223 employees in customer services and support, 26 employees in data operations, 151 employees in research and development, 98 employees in sales and marketing and 100 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, 2010, we had 113 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*. 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*.

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 $54.2 million at December 31, 2010. 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 and annual 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.

Our future growth is dependent on the successful development and introduction of new products and enhancements. There can be no assurance that we will be successful in developing and marketing, on a timely basis, new products or product enhancements, that our new products will adequately address the changing needs of the marketplace or that we will successfully manage the transition from existing technologies. Certain of these products require a higher level of sales and support expertise. The ability of our sales channel to obtain this expertise and to sell the new product offerings effectively could have an adverse impact on our sales and financial results in future periods. Any of these scenarios may result in the loss of or delay in customer acceptance, diversion of development resources, damage to our reputation, or increased service and warranty costs, any of which could have a material, adverse effect on our business, financial position, results of operations and cash flows.

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 43%, 46% and 46% of our revenues in 2010, 2009 and 2008, respectively. In 2010, Johnson & Johnson, Roche and AstraZeneca accounted for approximately 11%, 11% and 10% of our total revenues, 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. 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. As a result of our remediation efforts commenced in 2008 and concluded in 2009, no material weaknesses in our control environment were identified as of December 31, 2010 or 2009.

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 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. The likelihood of errors is increased as a result of our commitment to frequent release of new products and enhancements of existing products.

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.

We may expand our business 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 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 36%, 34% and 32% of our revenues in each of the years ended December 31, 2010, 2009 and 2008, 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, 2010, 2009 and 2008, approximately 9.8%, 8.5% and 7.7%, 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, which is described in Note 14, “Commitments and Contingencies—Legal Matters,” to the consolidated financial statements included in this Annual Report on Form 10-K. 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 ASP*ire* 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 March 2010, we reached a final agreement with this partner and paid a settlement amount of $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.

In March 2011, we were also named in a compliant for patent infringement filed by DataTrak International, Inc. 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 this claim. The vendors which provide us with technology that we incorporate in our product offerings also could become subject to various infringement claims. We cannot assure you that our software solutions and the technologies used in our product offerings do not infringe patents held by others or that they will not 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. In addition, 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. 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 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 were party to a lawsuit in Belgium brought by a former employee seeking approximately $1.4 million. In December 2010, we reached an agreement with the plaintiff and agreed to pay approximately $0.3 million to fully settle this lawsuit. 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, which is described in Note 14, "Commitments and Contingencies—Legal Matters," to the consolidated financial statements included in this Annual Report on Form 10-K. 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. In March 2011, we were also named in a compliant for patent infringement filed by DataTrak International, Inc. 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 this claim.

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.

Our contracts with the U.S. government are subject to termination rights and other risks that could adversely affect us

Because our U.S. government contracts and subcontracts are generally subject to procurement laws and regulations, we may not receive all of the future revenues we anticipate receiving under those contracts and subcontracts in the expected periods. Some of our government contracts are governed by the Federal Acquisition Regulation, or FAR, which includes uniform policies and procedures for acquiring goods and services by the U.S. government. The FAR also contains guidelines and regulations for managing a contract after an award, including conditions under which contracts may be terminated, in whole or in part, at the government's convenience. If a contract is terminated for convenience by the government, a contractor is entitled to receive payments for its allowable costs and, in general, the proportionate share of fees or earnings for the work performed. If a contract is terminated by the government for default on the part of the contractor, the government generally pays only for the work it has accepted. These regulations also subject us to financial audits and other reviews by the government of our costs, performance, accounting and general business practices relating to our government contracts, which may result in adjustment of our contract-related costs and fees. In December 2010, the U.S. government terminated for convenience a contract previously awarded to us on behalf of the U.S. National Institute of Health's National Cancer Institute, or NCI. Any future procurement actions by NCI or other government customers are subject to risks and uncertainties, which could affect the allocation, timing, schedule and scope of our government contracts and subcontracts.

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 $24.65 and as low as $13.36 through December 31, 2010. 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. 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 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, 2010 are shown in the following table. We do not own any real property.

Location	Use	Size	Expiration of Lease
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	Office space	24,236 square feet	February 2016
Conshohocken, Pennsylvania(1)	Office space	8,742 square feet	June 2011
Ross, California	Office space	3,138 square feet	December 2011
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 2013

(1) We executed a lease renewal agreement for this location in March 2011, which extended the lease term through June 2016 and expanded the size of the office to 10,297 square feet.

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 Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Stock Market Information

Our common stock has been traded 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:

	2010		2009	
	High	Low	High	Low
Fourth Quarter	$24.65	$18.01	$17.97	$14.76
Third Quarter	19.46	14.75	19.73	14.53
Second Quarter	16.69	13.36	19.00	16.00
First Quarter	16.98	14.50	—	—

Holders

On March 7, 2011, we had approximately 146 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 15th 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 grant 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. During the three months ended December 31, 2010, none of our restricted stock awards vested and therefore we did not repurchase any of our common stock.

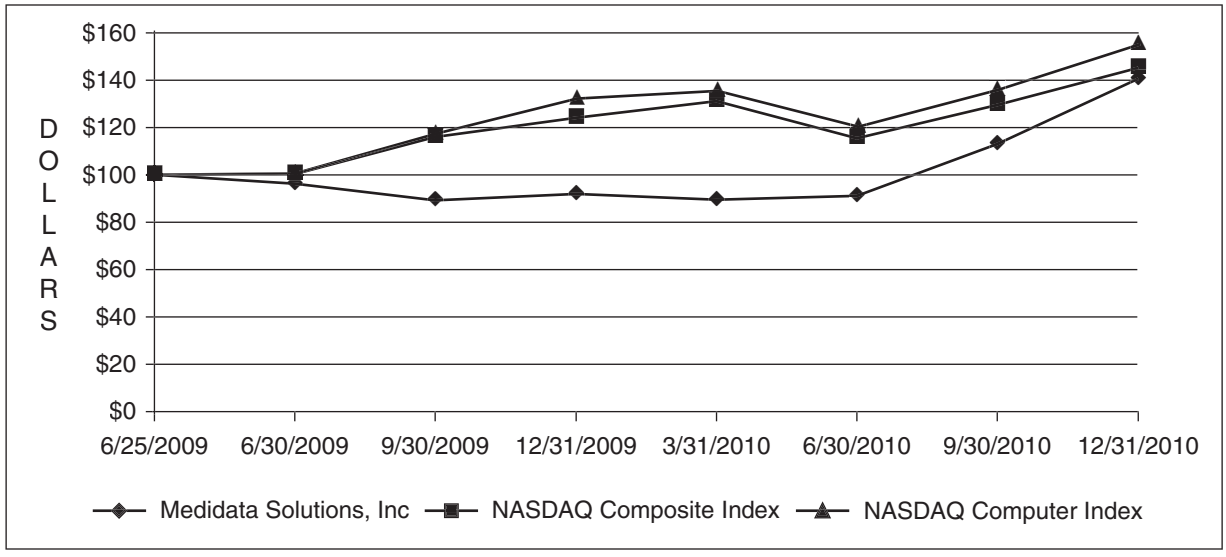
Use of Proceeds from our IPO

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	6/30/2009	9/30/2009	12/31/2009	3/31/2010	6/30/2010	9/30/2010	12/31/2010
Medidata Solutions, Inc.	$100.00	$ 96.35	$ 89.12	$ 91.88	$ 89.41	$ 91.12	$112.94	$140.47
NASDAQ Composite Index	100.00	100.30	116.01	124.03	131.07	115.29	129.47	145.00
NASDAQ Computer Index	100.00	100.49	117.42	132.01	135.35	120.20	135.86	155.04

Item 6. Selected Financial Data

Our selected consolidated financial information presented for each of the years ended December 31, 2010, 2009 and 2008 and as of December 31, 2010 and 2009 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, 2007 and 2006 and as of December 31, 2008, 2007 and 2006 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,				
	2010	2009	2008(1)	2007	2006
	(in thousands, except per share amounts)				
Revenues:					
Application services(2)	$136,395	$102,541	$ 73,820	$ 44,592	$ 25,406
Professional services	30,031	37,859	31,904	18,391	10,851
Total revenues	166,426	140,400	105,724	62,983	36,257
Costs of revenues:(3)					
Application services(4)	26,400	23,752	19,647	13,170	7,288
Professional services	25,847	26,219	30,801	33,035	20,462
Total cost of revenues	52,247	49,971	50,448	46,205	27,750
Gross profit	114,179	90,429	55,276	16,778	8,507
Operating costs and expenses:(3)					
Research and development(5)	25,772	22,534	19,340	10,716	5,905
Sales and marketing(6)	30,721	27,452	24,190	15,484	12,768
General and administrative	34,379	31,666	27,474	13,361	8,335
Total operating costs and expenses	90,872	81,652	71,004	39,561	27,008
Operating income (loss)	23,307	8,777	(15,728)	(22,783)	(18,501)
Interest and other income (expense), net(6)	415	(1,736)	(1,624)	(364)	(195)
Income (loss) before provision for income taxes	23,722	7,041	(17,352)	(23,147)	(18,696)
Provision for income taxes(7)	905	1,859	920	515	306
Net income (loss)	$ 22,817	$ 5,182	$ (18,272)	$(23,662)	$(19,002)
Earnings (loss) per share:					
Basic	$ 0.99	$ 0.33	$ (2.76)	$ (3.78)	$ (3.10)
Diluted	$ 0.95	$ 0.25	$ (2.76)	$ (3.78)	$ (3.10)
Weighted average common shares outstanding:(8)					
Basic	22,958	14,864	6,794	6,385	6,297
Diluted	24,062	20,736	6,794	6,385	6,297

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,				
	2010	2009	2008(1)	2007	2006
	(in thousands)				
Stock-based compensation expense(3)					
Cost of revenues	$ 755	$ 398	$ 291	$ 172	$ 108
Research and development	525	522	503	183	89
Sales and marketing	1,461	1,165	640	448	304
General and administrative	3,753	2,645	1,763	491	218
Total stock-based compensation	$6,494	$ 4,730	$3,197	$1,294	$ 719
Depreciation					
Cost of revenues	$5,296	$ 6,833	$5,941	$3,605	$1,237
Research and development	1,227	809	650	463	289
Sales and marketing	443	494	383	243	202
General and administrative	754	618	461	305	228
Total depreciation	7,720	8,754	7,435	4,616	1,956
Amortization of intangible assets(5)					
Cost of revenues	1,107	1,682	1,191	—	—
Sales and marketing	352	144	79	—	—
Total amortization of intangible assets	1,459	1,826	1,270	—	—
Total depreciation and amortization of intangible assets	$9,179	$10,580	$8,705	$4,616	$1,956

Consolidated Balance Sheet Data

	As of December 31,				
	2010	2009	2008	2007	2006
	(in thousands)				
Cash and cash equivalents(8)	$ 16,025	$ 39,449	$ 9,784	$ 7,746	$ 7,016
Total marketable securities(8)	69,473	49,638	—	—	—
Total current assets	132,881	101,652	44,565	29,556	19,073
Restricted cash	532	532	545	387	305
Total assets	157,945	143,409	75,190	44,479	25,121
Total deferred revenue(2)	83,768	97,710	101,621	75,635	42,337
Total capital lease obligations	780	3,516	7,060	8,527	2,281
Total long-term debt(9)	—	—	14,366	10,781	3,514
Convertible redeemable preferred stock(10)	—	—	13,245	12,747	12,249
Convertible preferred stock(10)	—	—	24	24	24
Stockholders' equity (deficit)(8)	51,126	20,232	(76,400)	(77,888)	(49,189)

(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) In December 2010, in connection with a customer contract termination, we recognized an additional $3.2 million in revenues, on an accelerated basis, which represented the remaining balance of deferred revenue on the balance sheet date as of the date of cancellation.

(3) On January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards, or SFAS, No. 123(R), *Share-Based Payment*, (codified 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).

(4) 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.

(5) 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.

(6) 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 a reserve of 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. In December 2010, we reached an agreement with the plaintiff and agreed to pay approximately $0.3 million to fully settle this lawsuit and $0.2 million associated with the related payroll tax obligation. As a result, we recorded a gain of approximately $0.1 million which was included in other income for the year ended December 31, 2010. The settlement amount was paid in December 2010 and the payroll tax obligation was subsequently paid in January 2011.

(7) For the years ended December 31, 2006 through 2010, we did not realize an income tax benefit for available net operating loss carryforwards. As of December 31, 2010, we had approximately $40.9 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 $67.9 million available to offset future state and local taxable income expiring from 2012 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.

(8) 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.

(9) 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, 2010, approximately $9.8 million of the revolving line of credit under our senior secured credit facility was still available for future borrowings.

In June 2010, we entered into the second loan modification agreement with the lender to amend certain terms under the senior secured credit facility. See Note 8, "Debt," to our consolidated financial statements included in Item 15 of this Annual Report on Form 10-K for more information regarding the second loan modification agreement.

(10) 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 SaaS based clinical technology solutions that enhance the efficiency of our customers' clinical development processes from concept to conclusion, optimizing 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, trial planning and management, user and learning management, randomization and trial supply management, monitoring, clinical data capture, management and reporting.

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 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 92 at January 1, 2008 to 219 at December 31, 2010. 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 91.9%, 93.2% and 87.0% in 2010, 2009 and 2008, respectively. We calculate customer retention based upon the number of customers that existed both at the beginning and end of the relevant period. Traditionally, we maintain a high percentage of customer retention and hence the revenue impact from lost customers is insignificant to our total revenues. Revenues from lost customers accounted for 1.2%, 0.5% and 2.9% of total prior year revenues in 2010, 2009 and 2008, 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 23%, 21% and 21% of total revenues in 2010, 2009 and 2008, respectively. Revenues generated from customers in Asia represented approximately 12%, 12% and 10% of total revenues in 2010, 2009 and 2008, 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, 2011 and 2010, we had full year backlog of approximately $135 million and $132 million, respectively. Our presentation of backlog may differ from other companies in our industry.

We consider the global adoption of clinical development technologies to be essential to our future growth. Our future growth will also depend on our ability to sustain 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.

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. We also offer applications that improve efficiencies for clinical trials from concept to conclusion.

Our professional services provide our customers with reliable, repeatable and cost-effective implementation and training in the use of our application services. We also offer consulting services to advise customers on ways to optimize their clinical development processes from trial concept to conclusion. 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 costs associated with our data center, including networking and related depreciation expense; as well as outside service provider costs, amortization expense and general overhead. We allocate general overhead, such as applicable shared rent and utilities, to cost of revenues based on relative headcount. The costs associated with providing professional services are recognized as such costs are incurred 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 incurred in 2008 and 2009. 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 consisted primarily 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.

In assessing the realizability of our deferred tax assets, including the net operating loss carryforwards, we assess the available positive and negative evidence to estimate if sufficient future taxable income will be generated to utilize our existing deferred tax assets. A significant piece of objective negative evidence evaluated has been our history of operating losses since our inception and continuing through 2008. While 2009 and 2010 have resulted in profitability, the existence of and the history of such negative evidence limits our ability to consider other subjective evidence such as our projections for future growth. Based on this evaluation, as of December 31, 2010, we have provided a valuation allowance against the majority of our 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 forecasts of future taxable income during the carryforward period are ultimately achieved and we continue to be profitable.

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. During the fourth quarter of 2010, we completed a tax analysis which enabled us to increase our Section 382 limitation. Pursuant to the Internal Revenue Service guidance, we are entitled to an increase in Section 382 limitation by assuming a deemed sale of assets, which is calculated based on a valuation of all of our assets and liabilities. Based upon the completion of such valuation, we were able to increase our Section 382 limitation by an additional $17 million. As a result, our federal taxable income for the years ended December 31, 2010 and 2009 was fully offset by our federal net operating loss carryforwards.

With the increase in our Section 382 limitation, we expect that it will take a shorter period of time than previously estimated to fully utilize our federal net operating loss carryforwards to offset future taxable income. Due to the increase in our Section 382 limitation, we do not expect our provision for federal income tax to increase in the near term. However, we expect our overall income tax expense to increase slightly in absolute dollars due to state and local income taxes, as well as foreign income taxes as our income from international operations continues 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 in June 2009, we were not a publicly traded company and 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 and our expected life of options was estimated based on the likely date of exercise in accordance with our internal studies of historical experience and projected exercise behavior as opposed to the actual life of the options. 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. In addition, as we do not have sufficient historical exercise data in the period since our stock began being publicly traded to provide a

reasonable basis upon which to estimate the expected life, we use the simplified method as allowed under SEC Staff Accounting Bulletin No. 110 for estimating the expected life of options as all of our options qualify as "plain-vanilla" options.

The risk-free interest rate is based on the United States Treasury yield curve with a maturity tied to the expected life of the 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 $6.5 million, $4.7 million and $3.2 million during 2010, 2009 and 2008, 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, 2010, we had $16.6 million of unrecognized stock-based compensation costs related to all non-vested equity awards granted under our 2000 Stock Option Plan and 2009 Plan. The unrecognized compensation cost is expected to be recognized over an average period of 2.34 years for stock options and 3.06 years for restricted stock awards as of December 31, 2010.

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 that 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 our market capitalization, 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. We had intangible assets of $2.9 million and $4.4 million, respectively as of December 31, 2010 and 2009. 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, 2010 and 2009, we had goodwill of $9.8 million. The results of our annual impairment test performed on October 1, 2010 indicated that our goodwill was not impaired. In 2010, as part of our annual goodwill impairment test, we reassessed our reporting units. Based on the results of that assessment, we considered our market capitalization under the market approach in determining the estimate of fair value of our reporting unit, as management believed that our market capitalization based on quoted market prices was the best evidence in determining such estimated fair value. 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. We set criteria of assumptions and estimates that were reviewed and approved by various levels of management. 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.

In addition, we follow 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, 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 $40.9 million and $56.2 million of federal net operating loss carryforwards as of December 31, 2010 and 2009, 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 $67.9 million and $191.0 million as of December 31, 2010 and 2009, respectively, available to offset future state and local taxable income, expiring from 2012 through 2028. Certain net operating loss carryforwards were obtained through our acquisition of Fast Track in 2008 and are subject to limitations under Section 382.

The utilization of our net operating loss carryforwards is 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 $8.3 million in 2010, a decrease of $2.5 million in 2009 and an increase of $7.7 million in 2008.

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.

	Year Ended December 31,		
	2010	2009	2008
Revenues:			
Application services	82.0%	73.0%	69.8%
Professional services	18.0%	27.0%	30.2%
Total revenues	100.0%	100.0%	100.0%
Cost of revenues:			
Application services	15.9%	16.9%	18.6%
Professional services	15.5%	18.7%	29.1%
Total cost of revenues	31.4%	35.6%	47.7%
Gross profit	68.6%	64.4%	52.3%
Operating costs and expenses:			
Research and development	15.5%	16.0%	18.3%
Sales and marketing	18.5%	19.6%	22.9%
General and administrative	20.7%	22.6%	26.0%
Total operating costs and expenses	54.7%	58.2%	67.2%
Operating income (loss)	13.9%	6.2%	(14.9)%

Year Ended December 31, 2010 Compared with Year Ended December 31, 2009

Revenues

	Year Ended December 31,					
	2010		2009		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amount in thousands)					
Revenues:						
Application services	$136,395	82.0%	$102,541	73.0%	$33,854	33.0%
Professional services	30,031	18.0%	37,859	27.0%	(7,828)	(20.7)%
Total revenues	$166,426	100.0%	$140,400	100.0%	$26,026	18.5%

Total revenues. Total revenues increased $26.0 million, or 18.5%, to $166.4 million in 2010 from $140.4 million in 2009. The increase in revenues was primarily due to a $33.9 million increase in revenues from application services, partially offset by a $7.8 million decrease in revenues from professional services. At the beginning of 2010, we had approximately $132 million of full year backlog.

Application services revenues. Revenues from application services increased $33.9 million, or 33.0%, to $136.4 million in 2010 from $102.5 million in 2009. The majority of the increase in application services revenues was derived from increased activity in our existing large customers, primarily resulting from new studies and renewals. We also benefited from increased product uptake and cross-selling to existing customers, as well as new customer additions. We increased the number of customers to 219 compared with 173 a year ago and continued our success in adding new midmarket customers. Revenues from new customers accounted for 21.1% of the total increase in application services revenues. Application services revenues also benefitted from a $3.2 million one-time acceleration of revenue recognition resulting from a customer contract termination in the fourth quarter of 2010. We also continue to benefit from the revenue stream from our multi-study arrangements, which increased by 37.9% compared with the prior period. Revenues also expanded significantly from both

international and domestic customers compared with the prior period. Revenues from customers based in Asia and Europe grew 39.8% and 39.6%, respectively, whereas revenues from customers based in North America grew 29.7%.

Professional services revenues. Revenues from professional services decreased $7.8 million, or 20.7%, to $30.0 million in 2010 from $37.8 million in 2009. Our professional services continue to represent a smaller portion of total revenues as our strategy has been to enable our customers to implement studies on their own or through CROs, rather than incurring additional follow-on costs. This has contributed to lower professional services revenues compared with the prior year. An additional factor contributing to the decline was an update to the estimated fair value utilized to determine the value of our professional services revenues.

Cost of Revenues

	Year Ended December 31,					
	2010		2009		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amounts in thousands)					
Cost of revenues:						
Application services	$26,400	15.9%	$23,752	16.9%	$2,648	11.1%
Professional services	25,847	15.5%	26,219	18.7%	(372)	(1.4)%
Total cost of revenues	$52,247	31.4%	$49,971	35.6%	$2,276	4.6%

Total cost of revenues. Total cost of revenues increased $2.3 million, or 4.6%, to $52.2 million in 2010 from $49.9 million in 2009. The increase in total cost of revenues was primarily due to an increase in cost of application services revenues.

Cost of application services revenues. Cost of application services revenues increased $2.6 million, or 11.1%, to $26.4 million in 2010 from $23.8 million in 2009. The increase was primarily due to an increase in personnel-related costs of $2.2 million. We continued to increase staffing levels in our Houston data center to support our growth in business. The remaining increase in cost of application services revenues was primarily attributable to higher technology-related expenses, as we continued to enhance our technology infrastructure to support of our overall growth.

Cost of professional services revenues. Cost of professional services decreased $0.4 million, or 1.4%, to $25.8 million in 2010 from $26.2 million in 2009. The decrease was primarily due to lower consulting-related costs and personnel-related costs. The decrease was associated with our continuing effort to reduce our reliance on outside consultants and maintain the utilization level of our existing staff.

Operating Costs and Expenses

	Year Ended December 31,					
	2010		2009		Change	
	Amount	% of Revenues	Amount	% of Revenues	Amount	%
	(Amounts in thousands)					
Operating costs and expenses:						
Research and development	$25,772	15.5%	$22,534	16.0%	$3,238	14.4%
Sales and marketing	30,721	18.5%	27,452	19.6%	3,269	11.9%
General and administrative	34,379	20.7%	31,666	22.6%	2,713	8.6%
Total operating costs and expenses	$90,872	54.7%	$81,652	58.2%	$9,220	11.3%

Total operating costs and expenses. Total operating costs and expenses increased $9.2 million, or 11.3%, to $90.8 million in 2010 from $81.6 million in 2009. Costs increased in each department with the larger increase in sales and marketing and research and development.

Research and development expenses. Research and development expenses increased $3.2 million, or 14.4%, to $25.7 million in 2010 from $22.5 million in 2009. The increase was primarily due to an increase in personnel-related costs of $2.3 million, which was attributable to our increase in staffing levels in order to support our strategy to continue to enhance and broaden our product offerings. The increase was also attributable to a higher depreciation and amortization of $0.4 million caused by higher capital expenditure spending.

Sales and marketing expenses. Sales and marketing expenses increased $3.3 million, or 11.9%, to $30.7 million in 2010 from $27.4 million in 2009. The increase was primarily due to higher personnel-related costs of $1.8 million, as we expanded our sales team to support our continuing growth in sales. The increase was also driven by higher travel costs of $0.5 million incurred by members of our sales team as a result of increased domestic and international sales efforts. Additionally, we incurred higher overall marketing costs to support the launch of several new products and existing product upgrades in 2010. The remaining increase in sales and marketing expenses was primarily attributable to higher recruiting costs and telecommunication expenses.

General and administrative expenses. General and administrative expenses increased $2.7 million, or 8.6%, to $34.4 million in 2010 from $31.7 million in 2009. The increase was primarily due to an increase in personnel-related costs of $2.1 million and technology-related costs of $1.1 million. The increase in personnel-related costs was primarily due to higher stock-based compensation costs resulting from a full year impact from our equity awards granted in June 2009, as well as the additional costs associated with our annual equity awards granted in May 2010. The increase also was attributable to higher staffing levels in order to manage our increased administrative workload and other additional costs incurred as a public company. Additionally, costs were impacted by a higher depreciation and amortization expense resulting from the purchase of certain technology equipment at the end of 2009 and increased costs associated with certain software licenses and maintenance renewals in the current year. The increase in general and administrative expenses was also driven by a slight increase in professional fees, primarily due to higher legal fees incurred in association with certain of our litigation and indemnification obligation matters, as well as additional professional fees incurred as a result of being a public company since June 2009, partially offset by the reduction of certain non-recurring costs associated with our secondary offering in December 2009.

Income Tax Expense

Income tax expense decreased $0.9 million, or 51.3%, to $0.9 million in 2010 from $1.8 million in 2009. The decrease was primarily due to our ability to fully utilize our federal net operating loss carryforwards to offset federal taxable income as a result of the increased Section 382 limitation in 2010. Our foreign income taxes were fairly consistent in 2010 as compared with 2009.

Year Ended December 31, 2009 Compared with 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	$140,400	100.0%	$105,724	100.0%	$34,676	32.8%

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	$49,971	35.6%	$50,448	47.7%	$ (477)	(0.9)%

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	$81,652	58.2%	$71,004	67.2%	$10,648	15.0%

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.

Liquidity and Capital Resources

Our principal sources of liquidity were cash, cash equivalents and marketable securities of $85.5 million at December 31, 2010 and $89.1 million at December 31, 2009. Cash and cash equivalents decreased $23.4 million during 2010 primarily due to the net purchases of marketable securities and the funding of capital expenditures, partially offset by the cash generated from operations resulting from our higher net income. The increase in cash and cash equivalents of $29.6 million in 2009 in comparison with 2008 was 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. 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.

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. We used a portion of our net proceeds to prepay the entire outstanding indebtedness of the term loan in July 2009. The remaining 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.

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 investments in money market funds. Marketable securities, which we classify as available-for-sale securities, primarily consist of high quality commercial paper, corporate bonds, U.S. government debt 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, as subsequently amended, 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 to repay all outstanding term notes in the total amount of $11 million and the remaining $4 million was used for general corporate purposes. 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. Except for the $0.2 million reduction of the available amount due to a standby letter of credit issued in connection with the office lease executed under our credit agreement in July 2009, the revolving line of credit remains undrawn. As of December 31, 2010, approximately $9.8 million of the revolving line of credit was still available for future borrowings. Due to the structure of the credit agreement, any future borrowings under the revolving line of credit will be classified as a current liability. As of December 31, 2010, the effective interest rate for our senior secured credit facility, as amended, was 2.76%, if borrowing under the U.S. London Interbank Offer Rate, or LIBOR, option. We are in compliance with all covenants under our senior secured credit facility, as amended, as of December 31, 2010. See "Revolving Line of Credit" section below for a summary of the second loan modification to our senior secured credit facility.

We believe that our cash flows from operations, existing cash and cash equivalents, highly liquid marketable securities and our existing revolving line of credit will be sufficient to satisfy the anticipated cash requirements associated with our existing operations for the foreseeable future. In 2011, we expect to make approximately $7 to $8 million in capital expenditures, primarily to enhance the stability and increase the capacity in our Houston data center, as well as to enhance our computer equipment across various corporate functions. We expect to acquire 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.

Revolving Line of Credit

In June 2010, we entered into the second loan modification agreement with the lender to amend our existing senior secured credit facility. Pursuant to the terms of the second loan modification agreement, our senior secured credit facility was amended to:

- reduce fees payable by us on our $10.0 million revolving line of credit under the senior secured credit facility by (a) eliminating the 2.25% margin on prime rate borrowings and (b) decreasing the undrawn revolving credit line fee from 0.500% of the average undrawn balance to an annual rate of 0.375% of the average undrawn balance;
- provide us with an option to borrow under the revolving line of credit at an interest rate based on the LIBOR, plus a margin of 2.5%;
- simplify our financial reporting procedures by eliminating monthly financial reporting obligations and amending certain reporting procedures; and
- replace our prior financial covenants with a simplified adjusted quick ratio covenant of 2.00:1.00 as defined in the second loan modification agreement and provide that in the event that we have less than $10.0 million of cash or cash equivalents in accounts with the lender in excess of our borrowings under the senior secured credit facility, we would also be required to satisfy a minimum trailing-two-quarter cash flow covenant, commencing at $3 million for the period ended June 30, 2010 and increasing each quarter by $1 million up to $6 million for the quarter ending March 31, 2011 and thereafter.

Cash Flows

Cash Flows Provided By Operating Activities

Cash flows provided by operating activities during 2010 were $6.2 million, which consisted primarily of a net income of $22.8 million, non-cash adjustments of depreciation and amortization of $9.2 million and stock-based compensation of $6.5 million, partially offset by an increase in accounts receivable of $15.4 million, a decrease in deferred revenue of $13.9 million, an decrease in accrued expenses of $3.1 million and an increase in prepaid expenses of $2.7 million. The increase in accounts receivable was due to billing delays, which led to lower cash collections. This resulted from our implementation of a new Enterprise Resource Planning, or ERP, system during the fourth quarter of 2010. We believe this increase in accounts receivable is temporary and over time we expect accounts receivable will decline back to our historical levels as we collect on the delayed invoices in the subsequent year. The decrease in deferred revenue was primarily due to a decline in large upfront

payments received from our customers, as some of our larger customers changed to more periodic payment terms upon their contract renewals. This trend is consistent with our expectation as our SaaS business model continues to evolve. The decrease in accrued expenses was primarily driven by certain accrued fees associated with our 2009 secondary offering and indemnification settlement were subsequently paid in 2010. Finally, the increase in prepaid expenses related to the payments of certain multi-year software-related licenses and services we expect to utilize over the next two to three years.

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 Used In Investing Activities

Cash flows used in investing activities during 2010 were $28.3 million, which was related to the $79.6 million purchases of marketable securities and the $7.4 million purchases of furniture, fixtures and equipment, partially offset by the $58.7 million proceeds from sale and maturity of marketable securities. For the year ended December 31, 2010, we did not acquire any equipment through capital lease arrangements.

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 or Provided by Financing Activities

Cash flows used in financing activities during 2010 were $1.3 million, which was primarily due to $2.7 million of capital lease principal payments and $0.4 million relating to the acquisition of treasury stock in connection with the vesting of restricted stock awards activities, partially offset by $1.9 million of proceeds from our stock plans.

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.

Contractual Obligations, Commitments and Contingencies

The following table of our material contractual obligations as of December 31, 2010 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	$11,551	$3,661	$5,304	$2,023	$563
Capital lease obligations	805	736	69	—	—
Letters of credit	676	676	—	—	—
Total	$13,032	$5,073	$5,373	$2,023	$563

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. As of December 31, 2009, we had an accrual of approximately $0.7 million associated with this claim. This accrual was denominated in Euros, the same currency as the claim, thus its balance was subject to foreign exchange fluctuations. In December 2010, we reached an agreement with the plaintiff and agreed to pay approximately $0.3 million to fully settle this lawsuit and $0.2 million associated with the related payroll tax obligation. As a result, we recorded a gain of approximately $0.1 million in the fourth quarter of 2010. The settlement amount was paid in December 2010 and the payroll tax obligation was subsequently paid in January 2011.

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 nearing completion of pre-trial discovery activities. A trial date has not yet been scheduled. 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, 2010. 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. In March 2010, we reached a final agreement with this customer and paid a settlement amount of $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.

On March 4, 2011, DataTrak International, Inc. filed a complaint for alleged patent infringement against us in DataTrak International v. Medidata Solutions, C.A. No. 1:11-cv-00458 in the U.S. District Court for the Northern District of Ohio. The complaint asserts infringement of U.S. Patent No. 7,464,087, which claims a method and system for unifying data from a variety of sources. The complaint asserts that we infringe the patent owned without providing any details concerning the alleged infringement, and it seeks unspecified damages and injunctive relief. We are currently in process of reviewing the patent and have not yet answered or otherwise responded to the complaint. As a result, no accrual has been recorded associated with this complaint by us.

Letters of Credit

We had several outstanding standby letters of credit as of December 31, 2010 and 2009 in the total amount of $0.7 million. These standby letters of credit were fully collateralized with our restricted cash and revolving line of credit under our senior secured credit facility, as amended.

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 October 2009, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or 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. We will adopt ASU No. 2009-13 prospectively on January 1, 2011. While we continue to evaluate the impact of the provisions of ASU No. 2009-13 on our consolidated financial statements, management believes that the revenue recognition of the professional services component included in our combined arrangements qualifies as a separate unit of accounting under ASU No.2009-13. As a result, for any combined arrangements entered into or materially modified in 2011, the professional services revenues will be recognized on a more accelerated or on an as delivered basis, as compared to our previous policy prior to the adoption of ASU No. 2009-13.

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 will adopt ASU No. 2009-14 prospectively and concurrently with ASU No. 2009-13 on January 1, 2011 and the adoption is not expected to have a significant impact 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 adopted ASU No. 2010-06 on January 1, 2010 and the adoption did not have a material impact on our consolidated financial statements.

In April 2010, the FASB issued ASU No. 2010-13, *Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades*, which amends ASC 718, *Compensation—Stock Compensation*, to clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades must not be considered a market, performance, or service condition. Therefore, an entity should not classify such an award as a liability if it otherwise qualifies for classification in equity. ASU No. 2010-13 is effective for interim and annual periods beginning on or after December 15, 2010, and will be applied prospectively. We adopted ASU No. 2010-13 on January 1, 2011. All of our stock-based awards granted to our international employees were classified as equity awards in accordance with our current accounting policy, which is consistent with the accounting treatment contained in ASU No. 2010-13. Therefore, the adoption of this ASU No. 2010-13 did not have a material impact 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 $16.0 million at December 31, 2010. Our cash equivalents are invested in money market funds and certain commercial paper with maturities of less than three months at purchases, the fair value of which is not materially affected by fluctuations in interest rates. We also had investment in marketable securities, which we classify as available for sale securities, totaling $69.5 million at December 31, 2010. Substantially all of our marketable securities are fixed income securities, which primarily consist of high quality commercial paper, corporate bonds, U.S. government debt obligations, bank certificates of deposit and foreign government bonds. The unrestricted cash and cash equivalents as well as marketable securities are held for working capital purposes. We manage our cash equivalents and marketable securities as a

single investment portfolio that is intended to be available to meet our current cash requirements. We do not enter into investments for trading or speculative purposes. Due to the short-term nature and high credit ratings of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, would reduce future investment income.

We have a floating rate revolving line of credit under our senior secured credit facility, as amended, which is currently undrawn. Accordingly, we will be exposed to fluctuations in interest rates if such revolving line of credit is drawn. Assuming the maximum available amount of our revolving line of credit was drawn as of December 31, 2010, each hundred basis point change in prime rate or LIBOR would result in a change in interest expense by an average of approximately $0.1 million annually.

Exchange Rate Sensitivity

We have two separate exposures to currency fluctuation risk: subsidiaries outside the United States 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 estimated for 2010 resulting from a hypothetical 10% adverse change in quoted foreign currency exchange rates amounts to $0.4 million.

We generally invoice our customers in U.S. dollars. However, we invoice a portion of customers in foreign currencies, a majority of which is denominated in Euro, Swiss Franc and Canadian dollars. 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. 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, 2010, 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, 2010.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

All internal control systems, no matter how well designed, have inherent limitations, Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In making the assessment of the effectiveness of our internal control over financial reporting as of December 31, 2010, our management used the criteria set forth in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO. Based on our assessment, we determined that our internal control over financial reporting was effective based on those criteria as of December 31, 2010.

Deloitte & Touche LLP, our independent registered public accounting firm, has performed an audit of the effectiveness of our internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control—Integrated Framework* issued by the COSO. This audit is required to be performed in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our independent auditors were given unrestricted access to all financial records and related data. The attestation reporting on the effectiveness of our internal control over financial reporting as of December 31, 2010 issued by our independent registered public accounting firm is included at the end of Item 9A in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

During the fourth quarter of 2010, we implemented our new Enterprise Resource Planning, or ERP, system. The implementation was substantially completed as of December 31, 2010. Our new ERP system is a fully-integrated set of programs and databases that incorporate sales contracts management, professional services time tracking and billings, revenue recognition, cash management, accounts payable and accounting. This implementation was subject to various testing and review procedures prior to execution. In connection with this new ERP system implementation, we have updated our internal control over financial reporting as necessary to accommodate our business process and related internal control over financial reporting. Other than activities associated with this new ERP system implementation, 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.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited the internal control over financial reporting of Medidata Solutions, Inc. (the "Company") as of December 31, 2010, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit 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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2010 and our report dated March 16, 2011, expressed an unqualified opinion on those consolidated financial statements and financial statement schedule.

/s/ DELOITTE & TOUCHE LLP

New York, New York

March 16, 2011

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, 2010 in connection with our 2011 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, 2010 in connection with our 2011 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, 2010 in connection with our 2011 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, 2010 in connection with our 2011 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, 2010 in connection with our 2011 Annual Meeting of Stockholders.

PART IV

Item 15. Exhibits and Financial Statement Schedule

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

1. Consolidated Financial Statements

2. Financial Statement Schedule

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 16, 2011

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:

Signature	Title	Date
/s/ TAREK A. SHERIF **Tarek A. Sherif**	Chairman, Chief Executive Officer *(Principal Executive Officer)* and Director	March 16, 2011
/s/ BRUCE D. DALZIEL **Bruce D. Dalziel**	Chief Financial Officer *(Principal Financial Officer)*	March 16, 2011
/s/ CORY DOUGLAS **Cory Douglas**	VP, Controller *(Principal Accounting Officer)*	March 16, 2011
/s/ GLEN M. DE VRIES **Glen M. de Vries**	President and Director	March 16, 2011
Carlos Dominguez	Director	March 16, 2011
/s/ NEIL M. KURTZ, M.D. **Neil M. Kurtz, M.D.**	Director	March 16, 2011
/s/ GEORGE MCCULLOCH **George McCulloch**	Director	March 16, 2011
/s/ PETER SOBILOFF **Peter Sobiloff**	Director	March 16, 2011
/s/ ROBERT B. TAYLOR **Robert B. Taylor**	Director	March 16, 2011

EXHIBIT INDEX

Exhibit No.	Description
3.1(4)	Fourth Amended and Restated Certificate of Incorporation.
3.2(4)	Amended and Restated Bylaws.
4.1(4)	Specimen common stock certificate.
10.1(4)	Form of Officer and Director Indemnification Agreement.
10.2(3)	Stock Repurchase Agreement, dated October 2, 2007, by and among Medidata Solutions, Inc. and the stockholders listed on Annex I thereto.
10.3(3)†	Medidata Solutions, Inc. Amended and Restated 2000 Stock Option Plan.
10.4(3)†	Form of Medidata Solutions, Inc. Amended and Restated 2000 Stock Option Plan Option Agreement.
10.5(4)†	Medidata Solutions, Inc. 2009 Long-Term Incentive Plan.
10.6(4)†	Form of Medidata Solutions, Inc. 2009 Long-Term Incentive Plan Stock Option Agreement.
10.7(4)†	Form of Medidata Solutions, Inc. 2009 Long-Term Incentive Plan Restricted Stock Agreement.
10.8(4)†	Medidata Solutions, Inc. 2009 Employee Stock Purchase Plan.
10.9(3)	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(3)	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(3)	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(3)	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(3)	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(3)†	Form of Executive Change in Control Agreement.
10.15(2)	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(2)	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.
10.17(5)	Second Loan Modification Agreement entered into as of June 30, 2010 by and among Medidata Solutions, Inc., Medidata FT, Inc. and Silicon Valley Bank.
21.1*	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

Exhibit No.	Description
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

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* 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 Registration Statement on Form S-1 (SEC File No. 333-156935) filed on January 26, 2009.

(2) 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.

(3) 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.

(4) 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.

(5) Incorporated by reference to Exhibit 10.1 of Medidata Solutions, Inc.'s Current Report on Form 8-K filed on July1, 2010.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders 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, 2010 and 2009, 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, 2010. 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes 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, 2010 and 2009, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2010, 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.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2010, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 16, 2011, expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

New York, New York

March 16, 2011

MEDIDATA SOLUTIONS, INC.

CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except per share data)

	December 31, 2010	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	$ 16,025	$ 39,449
Marketable securities	69,473	36,566
Accounts receivable, net of allowance for doubtful accounts of $308 and $197, respectively	34,268	18,887
Prepaid commission expense	3,087	3,045
Prepaid expenses and other current assets	6,297	3,566
Deferred income taxes	3,731	139
Total current assets	132,881	101,652
Restricted cash	532	532
Marketable securities—long-term	—	13,072
Furniture, fixtures and equipment, net	10,993	12,960
Goodwill	9,799	9,799
Intangible assets, net	2,945	4,404
Other assets	795	990
Total assets	$157,945	$143,409
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,797	$ 3,073
Accrued payroll and other compensation	11,520	10,837
Accrued expenses and other	4,058	7,543
Deferred revenue	63,228	69,842
Capital lease obligations	712	2,735
Total current liabilities	82,315	94,030
Noncurrent liabilities:		
Deferred revenue, less current portion	20,540	27,868
Deferred tax liabilities	3,418	326
Capital lease obligations, less current portion	68	781
Other long-term liabilities	478	172
Total noncurrent liabilities	24,504	29,147
Total liabilities	106,819	123,177
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value $0.01 per share; 5,000 shares authorized, none issued and outstanding	—	—
Common stock, par value $0.01 per share; 100,000 shares authorized, 24,141 and 22,900 shares issued; 24,089 and 22,895 shares outstanding, respectively	241	229
Additional paid-in capital	122,015	113,674
Treasury stock, 52 and 5 shares, respectively	(474)	(69)
Accumulated other comprehensive loss	(117)	(246)
Accumulated deficit	(70,539)	(93,356)
Total stockholders' equity	51,126	20,232
Total liabilities and stockholders' equity	$157,945	$143,409

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,		
	2010	**2009**	**2008**
Revenues			
Application services	$136,395	$102,541	$ 73,820
Professional services	30,031	37,859	31,904
Total revenues	166,426	140,400	105,724
Cost of revenues(1)(2)			
Application services	26,400	23,752	19,647
Professional services	25,847	26,219	30,801
Total cost of revenues	52,247	49,971	50,448
Gross profit	114,179	90,429	55,276
Operating costs and expenses:			
Research and development(1)	25,772	22,534	19,340
Sales and marketing(1)(2)	30,721	27,452	24,190
General and administrative(1)	34,379	31,666	27,474
Total operating costs and expenses	90,872	81,652	71,004
Operating income (loss)	23,307	8,777	(15,728)
Interest and other income (expense):			
Interest expense	(237)	(1,856)	(1,934)
Interest income	379	132	115
Other income (expense), net	273	(12)	195
Total interest and other income (expense), net	415	(1,736)	(1,624)
Income (loss) before provision for income taxes	23,722	7,041	(17,352)
Provision for income taxes	905	1,859	920
Net income (loss)	$ 22,817	$ 5,182	$ (18,272)
Earnings (loss) per share:			
Basic	$ 0.99	$ 0.33	$ (2.76)
Diluted	$ 0.95	$ 0.25	$ (2.76)
Weighted average common shares outstanding:			
Basic	22,958	14,864	6,794
Diluted	24,062	20,736	6,794

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

Cost of revenues	$ 755	$ 398	$ 291
Research and development	525	522	503
Sales and marketing	1,461	1,165	640
General and administrative	3,753	2,645	1,763
Total stock-based compensation	$ 6,494	$ 4,730	$ 3,197

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

Cost of revenues	$ 1,107	$ 1,682	$ 1,191
Sales and marketing	352	144	79
Total amortization of intangible assets	$ 1,459	$ 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 Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Treasury Stock		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount		Shares	Amount			
Balance—January 1, 2008	2,385	$ 24	6,571	$ 66	$ 2,228	497	$(6,000)	$ 65	$(74,271)	$(77,888)
Comprehensive loss:										
Net loss	—	—	—	—	—	—	—	—	(18,272)	(18,272)
Foreign currency translation adjustment	—	—	—	—	—	—	—	(454)	—	(454)
Total comprehensive loss	—	—	—	—	—	—	—	(454)	(18,272)	(18,726)
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	24	7,532	75	22,433	497	(6,000)	(389)	(92,543)	(76,400)
Comprehensive income (loss):										
Net income	—	—	—	—	—	—	—	—	5,182	5,182
Foreign currency translation adjustment	—	—	—	—	—	—	—	179	—	179
Net unrealized loss on marketable securities	—	—	—	—	—	—	—	(36)	—	(36)
Total comprehensive income	—	—	—	—	—	—	—	143	5,182	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)	(24)	9,015	90	11,140	—	—	—	—	11,206
Stock options exercised	—	—	253	3	393	—	—	—	—	396
Tax benefit associated with equity awards	—	—	—	—	56	—	—	—	—	56
Stock-based compensation	—	—	—	—	4,730	—	—	—	—	4,730
Restricted stock awards granted	—	—	297	3	(3)	—	—	—	—	—
Acquisition of treasury stock	—	—	—	—	—	5	(69)	—	—	(69)
Retirement of treasury stock	—	—	(497)	(5)	—	(497)	6,000	—	(5,995)	—
Accrued preferred stock dividends	—	—	—	—	(222)	—	—	—	—	(222)
Accretion of preferred stock issuance costs	—	—	—	—	(21)	—	—	—	—	(21)
Balance—December 31, 2009	—	—	22,900	229	113,674	5	(69)	(246)	(93,356)	20,232
Comprehensive income:										
Net income	—	—	—	—	—	—	—	—	22,817	22,817
Foreign currency translation adjustment	—	—	—	—	—	—	—	61	—	61
Net unrealized gain on marketable securities	—	—	—	—	—	—	—	68	—	68
Total comprehensive income	—	—	—	—	—	—	—	129	22,817	22,946
Stock options exercised	—	—	687	7	1,745	—	—	—	—	1,752
Reversal of tax benefit associated with equity awards	—	—	—	—	(56)	—	—	—	—	(56)
Stock-based compensation	—	—	—	—	6,494	—	—	—	—	6,494
Restricted stock awards granted	—	—	547	5	(5)	—	—	—	—	—
Acquisition of treasury stock	—	—	—	—	—	25	(405)	—	—	(405)
Restricted stock awards forfeited	—	—	—	—	—	22	—	—	—	—
Issuance of common stock in connection with employee stock purchase plan	—	—	7	—	163	—	—	—	—	163
Balance—December 31, 2010	—	$—	24,141	$241	$122,015	52	$ (474)	$(117)	$(70,539)	$ 51,126

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,		
	2010	2009	2008
Cash flows from operating activities:			
Net income (loss)	$ 22,817	$ 5,182	$(18,272)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	9,179	10,580	8,705
Stock-based compensation	6,494	4,730	3,197
Amortization of debt issuance costs	57	434	212
Amortization of discounts or premiums on marketable securities	1,144	136	—
Deferred income taxes	(131)	(244)	156
Excess tax benefit associated with equity awards	56	(56)	—
Write-off of acquired research and development costs	—	—	700
Changes in operating assets and liabilities:			
Accounts receivable	(15,381)	6,311	(8,915)
Prepaid commission expense	(42)	285	(48)
Prepaid expenses and other current assets	(2,731)	(897)	187
Other assets	—	(99)	59
Accounts payable	1,027	(1,011)	(4,182)
Accrued payroll and other compensation	683	2,935	2,619
Accrued expenses and other	(3,152)	3,713	364
Deferred revenue	(13,942)	(3,911)	24,648
Other long-term liabilities	106	88	107
Net cash provided by operating activities	6,184	28,176	9,537
Cash flows from investing activities:			
Purchases of furniture, fixtures and equipment	(7,407)	(4,765)	(4,563)
Purchases of available-for-sale marketable securities	(79,573)	(49,810)	—
Proceeds from sale of available-for-sale marketable securities	58,662	—	—
Decrease in restricted cash	—	13	—
Fast Track acquisition related costs	—	—	(625)
Cash and cash equivalents acquired through acquisition	—	—	1,049
Net cash used in investing activities	(28,318)	(54,562)	(4,139)
Cash flows from financing activities:			
Proceeds from exercise of stock options	1,752	396	61
Proceeds from issuance of stock in connection with employee stock purchase plan	163	—	—
Excess tax benefit associated with equity awards	(56)	56	—
Repayment of obligations under capital leases	(2,736)	(4,810)	(4,218)
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
Repayment of debt obligation	—	(15,000)	(10,958)
Payment of debt issuance costs	(21)	—	(669)
Acquisition of treasury stock	(405)	(69)	—
Net cash (used in) provided by financing activities	(1,303)	56,025	(3,287)
Net (decrease) increase in cash and cash equivalents	(23,437)	29,639	2,111
Effect of exchange rate changes on cash and cash equivalents	13	26	(73)
Cash and cash equivalents—Beginning of period	39,449	9,784	7,746
Cash and cash equivalents—End of period	$ 16,025	$ 39,449	$ 9,784

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

MEDIDATA SOLUTIONS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS, CONTINUED
(Amounts in thousands)

	Year Ended December 31,		
	2010	2009	2008
Supplemental disclosures of cash flow information:			
Cash paid during the period for:			
Interest	$ 173	$ 1,403	$ 1,652
Income taxes	$2,893	$ 742	$ 389
Noncash activities:			
Furniture, fixtures and equipment acquired through capital lease obligations	$ —	$ 1,266	$ 2,741
Furniture, fixtures and equipment acquired but not yet paid for at period-end	$ 486	$ 2,262	$ 268
Accrued costs associated with initial public offering	$ —	$ —	$ 778
Conversion of convertible redeemable preferred stock to common stock	$ —	$11,206	$ —
Accrued preferred stock dividends	$ —	$ —	$ 448
Accretion of preferred stock issuance costs	$ —	$ 21	$ 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.

1. ORGANIZATION

Medidata Solutions, Inc. ("Medidata" or the "Company") provides software-as-a-service ("SaaS") based clinical technology solutions that enhance the efficiency of its customers' clinical development processes from concept to conclusion 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; trial planning and management; user and learning management; randomization and trial supply management; user and learning management; randomization and trial supply management; monitoring; Serious Adverse Events capture; clinical data capture, management and reporting; advanced trial reporting and analytics; and data flow and interoperability among customers' multiple trial applications 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, 2010, 2009 and 2008 are referred to as 2010, 2009 and 2008, 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*.

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, $0.6 million and $1.5 million of reimbursable out-of-pocket expenses in professional services revenues in 2010, 2009 and 2008, 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 costs associated with the Company's data center, including networking and related depreciation expense; as well as outside service provider costs, amortization expense and general overhead. The Company allocates general overhead, such as applicable shared rent and utilities, to cost of revenues based on relative headcount.

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 2010, 2009 or 2008.

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 to 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, and its expected life based on the likely date of exercise as opposed to the actual life of the options. 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. Since the Company does not have sufficient historical exercise data in the period since its stock began being publicly traded to provide a reasonable basis upon which to estimate the expected life, the Company uses the simplified method as allowed under Securities and Exchange Commission Staff Accounting Bulletin No. 110 for estimating the expected life of options as all of its options qualify as "plain-vanilla" options. The risk-free interest rate is based on the United States Treasury yield curve in effect at the time of the option grant with a maturity tied to the expected life of the options. No dividends are expected to be declared by the Company at this time. 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.

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 $4.9 million, $6.1 million and $4.7 million in 2010, 2009 and 2008, 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—In March 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 that 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, 2010 and 2009.

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 the Company's market capitalization, prices of similar groups of assets, or other valuation techniques including present value techniques based upon estimates of future cash flow.

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, 2010 and 2009.

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.

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. 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 are included in general and administrative expenses and were $0.6 million in 2010, $0.5 million in 2009 and insignificant in 2008.

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 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, 2010, $17.3 million in cash and cash equivalents and restricted cash were deposited in excess of FDIC-insured limits.

As of December 31, 2010 and 2009 and each of the three years in the period ended December 31, 2010, total revenues recognized and total accounts receivable balance due related to the following significant customers are as follows:

	Percentage of Revenues			Percentage of Accounts Receivable	
	For the year ended December 31,			As of December 31,	
	2010	2009	2008	2010	2009
Customer A	11%	10%	10%	9%	10%
Customer B	11	9	4	9	1
Customer C	10	10	11	3	3
Total (Customers A to C)	32%	29%	25%	21%	14%

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 the chief operating decision maker makes operating decisions and assesses performance based on one single operating unit. The Company recorded revenues in the following geographic areas, based on the country in which revenues were generated and greater than five percent of the total revenues in 2010, 2009 and 2008 (in thousands):

	2010	2009	2008
Revenues:			
United States of America	$106,702	$ 92,939	$ 71,762
Japan	18,393	15,096	10,370
United Kingdom	13,987	11,970	10,612
Switzerland	8,900	6,306	1,246
Other	18,444	14,089	11,734
Total	$166,426	$140,400	$105,724

The following table summarizes long-term assets by geographic area as of December 31, 2010, 2009 and 2008 (in thousands):

	2010	2009	2008
Long-term assets:			
United States of America	$23,580	$39,895	$29,136
United Kingdom	809	976	982
Japan	675	886	507
Total	$25,064	$41,757	$30,625

Recently Issued Accounting Pronouncements—In October 2009, the FASB issued Accounting Standards Update ("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. The Company will adopt ASU No. 2009-13 prospectively on January 1, 2011. While the Company continues to evaluate the impact of the provisions of ASU No. 2009-13 on its consolidated financial statements, management believes that the revenue recognition of the professional services component included in the Company's combined arrangements qualifies as a separate unit of accounting under ASU No. 2009-13. As a result, for any combined arrangements entered into or materially modified in 2011, the professional services revenues will be recognized on a more accelerated or on an as delivered basis, as compared to the Company's previous policy prior to the adoption of ASU No. 2009-13.

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 will adopt ASU No. 2009-14 prospectively and concurrently with ASU No. 2009-13 on January 1, 2011 and the adoption is not expected to have a significant impact on its consolidated financial statements.

In January 2010, the FASB issued ASU No. 2010-06, *Improving Disclosure about Fair Value Measurement*. ASU No. 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 adopted ASU No. 2010-06 on January 1, 2010 and the adoption did not have a material impact on its consolidated financial statements.

In April 2010, the FASB issued ASU No. 2010-13, *Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades*, which amends ASC 718, *Compensation—Stock Compensation*, to clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trades must not be considered a market, performance, or service condition. Therefore, an entity should not classify such an award as a liability if it otherwise qualifies for classification in equity. ASU No. 2010-13 is effective for interim and annual periods beginning on or after December 15, 2010, and will be applied prospectively. All of the Company's stock-based awards granted to its international employees were classified as equity awards in accordance with its current accounting policy, which is consistent with the accounting treatment contained in ASU No. 2010-13. Therefore, the adoption of this ASU No. 2010-13 is not expected to have a material impact on the Company's 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.

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.

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 grants 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 2010 and 2009, the Company withheld 25,278 shares at an average price of $16.02 and 4,544 shares at an average price of $15.05, respectively, in connection with the vesting of its restricted stock awards.

4. MARKETABLE SECURITIES AND FAIR VALUE

The Company manages its cash equivalents and marketable securities as a single investment portfolio that is intended to be available to meet the Company's current cash requirements. Cash equivalents consist of investments in money market funds and certain commercial paper with maturities of less than three months at purchase. Marketable securities, which the Company classifies as available-for-sale securities, primarily consist of high quality commercial paper, corporate bonds, U.S. government debt obligations, bank certificates of deposit and foreign government bonds. 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, 2010 and 2009 (in thousands):

	As of December 31, 2010			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper and corporate bonds	$44,324	$ 27	$ (3)	$44,348
U.S. Treasury and U.S. government agency debt securities	22,569	11	—	22,580
Foreign government bonds	2,548	—	(3)	2,545
Total	$69,441	$ 38	$ (6)	$69,473

	As of December 31, 2009			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
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	$49,674	$ 17	$ (53)	$49,638

Contractual maturities of the Company's marketable securities as of December 31, 2010 and 2009 are summarized as follows (in thousands):

	As of December 31, 2010		As of December 31, 2009	
	Cost	Estimated Fair Value	Cost	Estimated Fair Value
Due in one year or less	$69,441	$69,473	$36,550	$36,566
Due after one through five years	—	—	13,124	13,072
Total	$69,441	$69,473	$49,674	$49,638

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, 2010 and 2009 (in thousands):

	In Loss Position for Less than 12 Months			
	As of December 31, 2010		As of December 31, 2009	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Commercial paper and corporate bonds	$5,713	$ (3)	$15,341	$ (49)
Foreign government bonds	2,545	(3)	—	—
U.S. Treasury and U.S. government agency debt securities	—	—	9,595	(4)
Total	$8,258	$ (6)	$24,936	$ (53)

None of the Company's marketable securities has been in a continuous unrealized loss position for more than twelve months as of December 31, 2010 and 2009.

At December 31, 2010, the Company had an insignificant amount of gross unrealized losses primarily due to a decrease in the fair value of certain corporate bond and foreign government bond securities. The Company regularly reviews its investment portfolio to identify and evaluate investments that have indications of possible impairment. Factors considered in determining whether a loss is temporary include:

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

As the Company has the ability and intent to hold these investments until a recovery of fair value, which may be maturity, the Company has determined that the gross unrealized losses on such investments at December 31, 2010 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, 2010.

During 2010, the Company recorded an insignificant amount of net realized gains from the sale of marketable securities. In 2009, the Company did not dispose any of its marketable securities since the Company began to invest in October 2009 and therefore 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, 2010 and 2009 are summarized as follows (in thousands):

	As of December 31, 2010			As of December 31, 2009		
	Fair Value Measurement Using			Fair Value Measurement Using		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Money market funds	$ 4,556	$ —	$ 4,556	$27,114	$ —	$27,114
Commercial paper	—	3,899	3,899	—	—	—
Total cash equivalents	4,556	3,899	8,455	27,114	—	27,114
Commercial paper and corporate bonds	—	44,348	44,348	—	33,342	33,342
U.S. Treasury and U.S. government agency debt securities	13,051	9,529	22,580	5,995	3,600	9,595
Foreign government bonds	—	2,545	2,545	—	—	—
Bank certificates of deposit	—	—	—	—	6,701	6,701
Total marketable securities	13,051	56,422	69,473	5,995	43,643	49,638
Total financial assets	$17,607	$60,321	$77,928	$33,109	$43,643	$76,752

The Company's financial assets that are measured at fair value on a recurring basis are generally classified within Level 1 or Level 2 of the fair value hierarchy. Investments in money market funds 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, bank certificates of deposit and foreign government bonds 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, U.S. government agency debt securities and foreign government bonds were derived from the inputs of market prices from multiple sources at each reporting period. The fair value was then determined based on a consensus price or a weighted average price for each security. For the remaining financial assets classified as Level 2, substantially all of the securities had a short maturity within one year with high credit ratings. Therefore, the valuation techniques used to measure the fair values were primarily derived from accretion of purchase price to its face value over the term of maturity or quoted market prices for similar instruments if available. During 2010, there were no transfers of financial assets between Level 1 and Level 2.

The carrying amounts of all other current financial assets and current financial liabilities reflected in the consolidated balance sheets approximate fair value due to their short-term nature. The Company does not have non-financial assets or liabilities that have been measured at fair value on a nonrecurring basis during the year ended December 31, 2010.

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

There was no change in the carrying amount of goodwill during 2010 and 2009.

Intangible assets are summarized as follows (in thousands):

	As of December 31, 2010			As of December 31, 2009	
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired technology	$2,400	$(1,340)	$1,060	$ (860)	$1,540
Database	1,900	(1,060)	840	(681)	1,219
Customer relationships	1,600	(576)	1,024	(224)	1,376
Customer contracts	1,600	(1,579)	21	(1,331)	269
Total	$7,500	$(4,555)	$2,945	$(3,096)	$4,404

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

Years ending December 31,	
2011	$1,377
2012	1,308
2013	260
2014	—
2015	—

7. FURNITURE, FIXTURES AND EQUIPMENT

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

	As of December 31,	
	2010	2009
Computer equipment and purchased software	$ 31,927	$ 28,401
Leasehold improvements	3,539	2,898
Furniture and fixtures	1,144	1,009
Total furniture, fixtures and equipment	36,610	32,308
Less: accumulated depreciation and amortization	(25,617)	(19,348)
Furniture, fixtures and equipment, net	$ 10,993	$ 12,960

Included in furniture, fixtures and equipment, net as of December 31, 2010 and 2009 are computer equipment and purchased software acquired under capital leases of approximately $0.8 million and $3.2 million, respectively, net of related accumulated depreciation of approximately $14.2 million and $12.0 million, respectively. Depreciation and amortization expense for furniture, fixtures and equipment, including assets acquired under capital leases, was $7.7 million in 2010, $8.8 million in 2009 and $7.4 million in 2008. Depreciation of assets acquired under capital leases was $2.4 million in 2010, $5.2 million in 2009 and $4.8 million in 2008.

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.

In September 2008, the Company entered into a new senior secured credit facility ("Credit Facility") with an unrelated lender that included a $15.0 million term loan ("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 Credit Facility was secured effectively by all of the assets of the Company. Proceeds of the 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 Credit Facility matures in September 2013 and the outstanding principal of the Term Loan amortized 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.

Prior to the second loan modification ("Second Modification") in June 2010, the Term Loan and Revolving Credit Line was bearing interest at prime rate plus 2.5% until March 31, 2009 and, thereafter, would bear interest at prime rate plus 2.25%. In December 2008, the Credit Facility was amended to define "prime rate" as 4.5% or the lender's most recently announced prime rate, whichever was greater. Since the Company satisfied the minimum fixed charge coverage ratio covenant as of December 31, 2009, the applicable margin thereafter was reduced to 1.5% in accordance with the Credit Facility agreement. In addition, any undrawn Revolving Credit Line was subject to a quarterly unused fee at an annual rate of 0.5% of the average undrawn balance. The Company was entitled to prepay the Credit Facility at its option, subject to a payment of a premium on such prepayments during the first three years after closing, which decreased over the three-year period from 3% of the amount prepaid to 1%. The Credit Facility was also subject to mandatory prepayment under certain specified circumstances. In connection with the 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 Credit Facility.

In July 2009, the Company used a portion of its 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. As a result of the prepayment of Term Loan, approximately $0.3 million of the unamortized debt issuance costs was written off, representing the proportional decrease in borrowing capacity of the Credit Facility.

In June 2010, the Company entered into the Second Modification agreement with the lender. Pursuant to the terms of the Second Modification, the Credit Facility was amended to:

- reduce fees payable by the Company on its $10.0 million Revolving Credit Line under the Credit Facility by (a) eliminating the 2.25% margin on prime rate borrowings and (b) decreasing the undrawn revolving credit line fee from 0.5% of the average undrawn balance to an annual rate of 0.375% of the average undrawn balance;
- provide the Company with an option to borrow under the Revolving Credit Line at an interest rate based on the U.S. London Interbank Offer Rate ("LIBOR") plus a margin of 2.5%;

- simplify the Company's financial reporting procedures by eliminating monthly financial reporting obligations and amending certain reporting procedures; and
- replace the Company's prior financial covenants with a simplified adjusted quick ratio covenant of 2.00:1.00 as defined in the Second Modification and provide that in the event that the Company has less than $10.0 million of cash or cash equivalents in accounts with the lender in excess of the Company's borrowings under the Credit Facility, the Company would also be required to satisfy a minimum trailing-two-quarter cash flow covenant, commencing at $3 million for the period ended June 30, 2010 and increasing each quarter by $1 million up to $6 million for the quarter ending March 31, 2011 and thereafter.

Since the Second Modification did not amend the total amount of the $10.0 million Revolving Credit Line nor change the remaining term, the Company concluded that the borrowing capacity remained unchanged after the amendment. As a result, the $21 thousand of new debt issuance costs incurred from the Second Modification have been deferred and amortized together with the existing unamortized debt issuance costs over the remaining term of the Credit Facility in accordance with ASC 470-50-40-21. As of December 31, 2010, the remaining unamortized balance was approximately $0.2 million and is classified in other assets on the accompanying consolidated balance sheet.

Except for the $0.2 million reduction of the available amount due to a standby letter of credit issued in connection with the office lease executed under the Credit Facility in July 2009, the Revolving Credit Line remains undrawn. As of December 31, 2010, approximately $9.8 million of the Revolving Credit Line under the Credit Facility, as amended, was still available for future borrowings.

Due to the lock-box arrangement and the subjective acceleration clause contained in the agreement of Credit Facility, as amended, 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*.

The following table summarizes the interest expense incurred on long-term debt for the three years ended December 31, 2010 (in thousands):

	2010	2009	2008
Term Note A	$—	$ —	$ 104
Term Note B	—	—	101
Term Note C	—	—	556
Term Loan	—	533	317
Term Loan prepayment termination fees	—	429	—
Unused Revolving Credit Line fee	44	51	15
Total	$ 44	$1,013	$1,093

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,	
2011	$ 736
2012	69
Total minimum lease payments	805
Less amount representing interest	(25)
Present value of net minimum capital lease payments	780
Less current portion	(712)
Capital lease obligations, excluding current portion	$ 68

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. The majority of the options are vested 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 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 vest monthly 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 first enrollment of ESPP did not begin until June 2010 which was associated with the offering period of July through December 2010. There were a total of 7 thousand shares of the Company's common stock issued under the ESPP in 2010. Upon completion of the last offering period in 2010, the Company decided to discontinue the ESPP effective January 1, 2011.

The Company accounts for the stock-based compensation in accordance with ASC 718. For the three years ended December 31, 2010, the components of stock-based compensation expense were summarized in the following table (in thousands):

	2010	2009	2008
Stock options	$4,128	$4,063	$3,197
Restricted stock awards	2,366	667	—
Total stock-based compensation	$6,494	$4,730	$3,197

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:

	2010	2009	2008
Expected volatility	60%	63%	59%
Expected life	6 years	6 years	6 years
Risk-free interest rate	2.47%	2.53%	3.06%
Dividend yield	—	—	—

The following table summarizes the activity under the stock option plans as of December 31, 2010, and changes during the year then ended (in thousands, except per share data):

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at January 1, 2010	2,813	$ 8.85		
Granted	337	15.35		
Exercised	(687)	2.55		
Forfeited	(43)	14.48		
Expired	(36)	19.46		
Outstanding at December 31, 2010	2,384	$11.33	6.70	$29,921
Exercisable at December 31, 2010	1,546	$ 9.26	5.75	$22,600
Vested and expected to vest at December 31, 2010	2,351	$11.27	6.67	$29,641

The weighted-average grant-date fair value of stock options granted during 2010, 2009 and 2008 was $8.75, $8.60 and $11.56, respectively. The total intrinsic value of stock options exercised during 2010, 2009 and 2008 was $10.2 million, $3.6 million and $1.9 million, respectively.

The following table summarizes the status of the Company's nonvested restricted stock awards as of December 31, 2010, and changes during the year then ended (in thousands, except per share data):

	Number of Shares	Weighted-Average Grant-Date Fair Value
Nonvested at January 1, 2010	286	$14.02
Granted	547	15.35
Vested	(80)	14.02
Forfeited	(22)	14.79
Nonvested at December 31, 2010	731	$14.99

As of December 31, 2010, there was a total of $16.6 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 2.34 years for stock options and 3.06 years for restricted stock awards. The total fair value of shares vested during 2010, 2009 and 2008 was $5.4 million, $4.4 million and $2.7 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, 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.

A reconciliation of the numerator and denominator of basic earnings per share and diluted earnings per share for the three years ended December 31, 2010 are shown in the following table (in thousands, except per share data):

	2010	2009	2008
Numerator			
Numerator for basic earnings (loss) per share:			
Net income (loss)	$22,817	$ 5,182	$(18,272)
Preferred stock dividends and accretion	—	(243)	(498)
Net income (loss) available to common stockholders	22,817	4,939	(18,770)
Numerator for diluted earnings (loss) per share:			
Effect of dilutive preferred stock	—	243	—
Net income (loss) available to common stockholders with assumed conversion	$22,817	$ 5,182	$(18,770)
Denominator			
Denominator for basic earnings (loss) per share:			
Weighted average common shares outstanding	22,958	14,864	6,794
Denominator for diluted earnings (loss) per share:			
Dilutive potential common shares:			
Preferred stock	—	4,470	—
Stock options	953	1,372	—
Restricted stock awards	151	30	—
Weighted average common shares outstanding with assumed conversion	24,062	20,736	6,794
Basic earnings (loss) per share	$ 0.99	$ 0.33	$ (2.76)
Diluted earnings (loss) per share	$ 0.95	$ 0.25	$ (2.76)
Total number of anti-dilutive shares of stock options and nonvested stock excluded from calculation of diluted earnings (loss) per share	1,130	1,079	11,041

12. INCOME TAXES

The components of income tax expense (benefit) for the three years ended December 31, 2010 are as follows (in thousands):

	2010	2009	2008
Current expense:			
Federal and state	$ 237	$ 1,386	$ —
Foreign	799	717	764
Current expense	1,036	2,103	764
Deferred (benefit) expense:			
Federal and state	8,143	2,211	(7,687)
Foreign	24	66	112
Valuation allowance	(8,298)	(2,521)	7,731
Deferred (benefit) expense	(131)	(244)	156
Total income tax expense	$ 905	$ 1,859	$ 920

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):

	2010	2009	2008
Tax computed at federal statutory rate	$ 8,303	$ 2,394	$(5,900)
Increase (decrease) in income taxes resulting from:			
Valuation allowance	(8,493)	(2,551)	5,142
Stock-based compensation	198	639	606
Undistributed earnings from foreign subsidiaries	623	543	726
State tax expense, net of federal benefit	324	440	5
Prior year amended federal tax return	(263)	—	—
Non-deductible bonuses	201	217	158
Non-deductible items	14	160	179
Foreign tax rate differential	(2)	17	4
Total income tax expense	$ 905	$ 1,859	$ 920

As of December 31, 2010 and 2009, the components of deferred tax assets (liabilities) are as follows (in thousands):

	As of December 31,	
	2010	2009
Assets:		
Net operating loss carryforwards	$ 13,114	$ 20,242
Deferred revenue	8,596	12,198
Depreciable and amortizable assets	4,382	3,100
Foreign tax credit	2,940	2,327
Stock based compensation	3,007	1,780
Other	2,239	1,738
Gross deferred tax assets	34,278	41,385
Liabilities:		
Depreciable and amortizable assets	(5,251)	(4,401)
Management fee	(404)	(262)
Foreign exchange translation	(143)	(142)
Other	(199)	(120)
Gross deferred tax liabilities	(5,997)	(4,925)
Less: valuation allowance	(27,886)	(36,184)
Net deferred tax assets	$ 395	$ 276
Net current deferred tax assets	$ 3,731	$ 139
Net long-term deferred tax assets (included in other assets)	116	475
Net current deferred tax liabilities (included in accrued expenses and other)	(34)	(12)
Net long-term deferred tax liabilities	(3,418)	(326)
Net deferred tax assets	$ 395	$ 276

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

	2010	2009	2008
U.S. income (loss)	$21,966	$5,440	$(19,234)
Non-U.S. income	1,756	1,601	1,882
Total income (loss) before provision for income taxes	$23,722	$7,041	$(17,352)

As of December 31, 2010 and 2009, the Company had approximately $40.9 million and $56.2 million, respectively, of federal net operating loss carryforwards ("Federal NOL") available to offset future taxable income expiring from 2012 through 2028. This Federal NOL included $9.7 million and $2.6 million attributable to the excess tax deductions on stock option activity which was not included in the recorded deferred tax assets as of December 31, 2010 and 2009, respectively. The tax benefit of this deduction will be recognized through additional paid-in capital at such time as the Federal NOL is used to reduce income taxes payable. 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 $67.9 million and $191.0 million as of December 31, 2010 and 2009, respectively, expiring from 2012 through 2028. Certain net operating loss carryforwards were obtained through the acquisition of Fast Track in 2008 and are subject to limitations under Section 382 of the Internal Revenue Code ("Section 382").

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 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 Section 382 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, the Company's Federal NOL was 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 for the year ended December 31, 2009.

During the fourth quarter of 2010, the Company completed a tax analysis which enabled the Company to increase its Section 382 limitation. Pursuant to the Internal Revenue Service ("IRS") guidance, the Company is entitled to an increase in Section 382 limitation by assuming a deemed sale of assets, which is calculated based on a valuation of all of the Company's assets and liabilities. Based upon the completion of such valuation, the Company was able to increase its Section 382 limitation by an additional $17 million. The Company will amend its 2009 federal income tax return to reflect the utilization of additional Federal NOL to offset the tax liability filed under the original tax return. For the year ended December 31, 2010, the Company's current income tax expense consisted primarily of current year federal alternative minimum tax and state and local income taxes of $0.5 million, partially offset by a benefit of $0.3 million associated with an expected refund from the 2009 amended federal income tax return.

In assessing the realizability of deferred tax assets, including the net operating loss carryforwards, 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 has been the Company's history of operating losses since its inception and continuing through 2008. While 2009 and 2010 have resulted in profitability, the existence of and the history of such negative evidence limits the Company's ability to consider other subjective evidence such as the Company's projections for future growth. Based on this evaluation, as of December 31, 2010, 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 forecasts of future taxable income during the carryforward period are ultimately achieved and the Company continues to be profitable. The net change in the valuation allowance was a decrease of $8.3 million in 2010, a decrease of $2.5 million in 2009 and an increase of $7.7 million in 2008.

As of December 31, 2010 and 2009, the Company had domestic net deferred tax assets of approximately $0.4 million and $0.3 million, respectively, primarily related to the federal alternative minimum tax credit carryforwards, which are subject to limitations on their utilization. As these credits are not subject to expiration, the Company believes it is more likely than not that such tax benefit will be realized and therefore no valuation allowance has been recorded. The Company also had an insignificant amount of foreign net deferred tax assets relating to its foreign subsidiaries as of December 31, 2010 and 2009, 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. The aggregate changes in the balance of the Company's gross unrecognized tax benefits during 2010 and 2009 were as follows (in thousands):

	2010	2009	2008
Gross unrecognized tax benefits as of beginning of period	$ 151	$—	$—
Increases related to tax positions from prior fiscal years	—	151	—
Settlements with tax authority	(151)	—	—
Total gross unrecognized tax benefits as of end of period	$ —	$151	$—

As of December 31, 2009, approximately $0.1 million of unrecognized benefits would affect the Company's effective tax rate, if recognized. The Company paid a total of $0.2 million, which included interest and penalties, to the state of Texas with the amended income tax returns filed in July 2010. As a result, the entire balance of unrecognized tax benefits was reversed during the year ended December 31, 2010.

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 for each of the three years ended December 31, 2010 and accrued interest and penalties as of December 31, 2010 and 2009 were not significant. The Company believes that its income tax positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position during the next twelve months. The Company's federal income tax returns for the 2003 through 2009 tax years remain open to examination by the IRS in their entirety. In addition, the Company's state income tax returns for the 2000 through 2009 tax years also remain open to examination by state taxing authorities. In 2010, the Company was informed by the IRS that the examination of its 2007 federal income tax return was completed and no adjustment to the tax return was proposed by the IRS.

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 and therefore this customer was not considered a related party in 2009 and 2010. 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,	
2011	$ 3,661
2012	2,900
2013	2,404
2014	1,003
2015	1,020
Thereafter	563
Total minimum lease payments	$11,551

Rent expense was approximately $3.9 million in 2010, $3.6 million in 2009 and $2.7 million in 2008. The Company had several outstanding standby letters of credit issued in connection with office leases in the amount of $0.7 million as of December 31, 2010 and 2009. These standby letters of credit were fully collateralized with restricted cash and Revolving Credit Line as of December 31, 2010 and 2009.

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. 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. The Company incurred expense of $0.8 million, $0.7 million and $0.6 million relating to matching contributions in 2010, 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.

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 nearing completion of pre-trial discovery activities. A trial date has not yet been scheduled. 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, 2010 and 2009. The Claimant also filed patent infringement lawsuits against two of the Company's customers. See "Indemnification" below for additional information.

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 in January 2009, which awarded approximately $0.1 million to the plaintiff. The plaintiff filed a notice of appeal in September 2009. As of December 2009, we had an accrual of approximately $0.7 million associated with this claim which was included in accrued payroll and other compensation on the accompanying consolidated balance sheets. This accrual was denominated in Euros, the same currency as the claim, thus its balance was subject to foreign exchange fluctuations. In December 2010, the Company reached an agreement with the plaintiff and agreed to pay approximately $0.3 million to fully settle this lawsuit and $0.2 million associated with the related payroll obligation. As a result, the Company recorded a gain of approximately $0.1 million in the fourth quarter of 2010. The settlement amount was paid in December 2010 and the payroll tax obligation was subsequently paid in January 2011.

On March 4, 2011, DataTrak International, Inc. filed a complaint for alleged patent infringement against the Company in DataTrak International v. Medidata Solutions, C.A. No. 1:11-cv-00458 in the U.S. District Court for the Northern District of Ohio. The complaint asserts infringement of U.S. Patent No. 7,464,087, which claims a method and system for unifying data from a variety of sources. The complaint asserts that the Company infringes the patent owned without providing any details concerning the alleged infringement, and it seeks unspecified damages and injunctive relief. The company is currently in process of reviewing the patent and has not yet answered or otherwise responded to the complaint. As a result, no accrual has been recorded associated with this complaint by the Company.

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 $0.5 million which was included in accrued expenses and other on the accompanying consolidated balance sheet as of December 31, 2009. In March 2010, the Company reached a final agreement with this customer and paid a settlement amount of $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 immaterial.

Change in Control Agreements—In January 2009, the Company entered into change in control agreements with its chief executive officer and certain other executive officers. These agreements provide for payments to be made to such officers upon involuntary termination of their employment by the Company without cause or by such officers for good reason as defined in the agreements, within a 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 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.

15. UNAUDITED SELECTED QUARTERLY FINANCIAL DATA

The following table presents the Company's unaudited selected quarterly financial data for 2010 and 2009 (in thousands, except for share data):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
For the fiscal year 2010:				
Total revenues	$37,642	$40,313	$41,102	$47,369
Gross profit	25,066	27,494	27,894	33,725
Operating income	2,944	4,408	6,046	9,909
Net income	1,864	2,965	4,664	13,324
Earnings per share:				
Basic	$ 0.08	$ 0.13	$ 0.20	$ 0.57
Diluted	$ 0.08	$ 0.13	$ 0.20	$ 0.55
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

MEDIDATA SOLUTIONS, INC.

Exhibits and Financial Statement Schedule

Schedule II—Valuation and Qualifying Accounts

The allowance for doubtful accounts as of December 31, 2010 and 2009 was $0.3 million and $0.2 million, respectively. The table below details the activity in the account for the three years ended December 31, 2010 (in thousands):

	2010	2009	2008
Balance at beginning of period	$197	$ 309	$ 32
Charged to costs and expenses	150	—	280
Deductions	(39)	(112)	(3)
Balance at end of period	$308	$ 197	$309

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Board of Directors

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Chairman & Chief Executive Officer
Medidata Solutions

Glen M. de Vries
President
Medidata Solutions

Carlos Dominguez [2,3*]
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Office of the Chairman and CEO
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Level Equity Management

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Annual Meeting

Tuesday, May 31, 2011 | 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

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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:

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