MODEL N, INC.
Form 10-K
November 18, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 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: September 30, 2016

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: 001-35840

Model N, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)	77-0528806 (I.R.S. Employer Identification No.)
1600 Seaport Boulevard, Suite 400	
Pacific Shores Center – Building 6	
Redwood City, California (Address of Principal Executive Offices)	94063 (Zip Code)

(650) 610-4600

(Registrant's Telephone Number, Including Area Code)

Securities Registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.00015 par value per share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the 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 checkmark 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 during the preceding 12 months (or for such shorter time 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 definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company)	Smaller reporting company

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

The aggregate market value of voting stock held by non-affiliates of the registrant as of March 31, 2016, the last business day of the registrant's most recently completed second fiscal quarter, based on the closing price of $10.77 per share of the registrant's common stock as reported by the New York Stock Exchange, was approximately $234 million. Shares of common stock held by each executive officer, director, and their affiliated holders have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares outstanding of the registrant’s Common Stock as of November 11, 2016 was 27,895,203 shares.

Documents Incorporated by Reference

Information required in response to Part III of Form 10-K (Items 10, 11, 12, 13 and 14) is hereby incorporated by reference to portions of the registrant’s Proxy Statement for the Annual Meeting of Stockholders to be held in 2017. The Proxy Statement will be filed by the Registrant with the Securities and Exchange Commission no later than 120 days after the end of the registrant’s fiscal year ended September 30, 2016.

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PART I.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements regarding future events and our future results that are subject to the safe harbors created under the Securities Act of 1933 (Securities Act) and the Securities Exchange Act of 1934 (Exchange Act). All statements contained in this report other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans, and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “g “plan,” “intend,” “expect,” “seek”, and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described under “Part I, Item 1A. Risk Factors,” and elsewhere in this report. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. We are under no duty to update any of these forward-looking statements after the date of this report or to conform these statements to actual results or revised expectations.

As used in this report, the terms “Model N,” “Registrant,” “we,” “us,” “our,” and “the Company” mean Model N, Inc. and its subsidiaries unless the context indicates otherwise.

Item 1. Business
Overview

Model N is a leader in Revenue Management solutions for life science and technology companies. Driving mission critical business processes such as configure, price and quote (CPQ), rebates management and regulatory compliance, our solutions transform the revenue lifecycle from a series of disjointed operations into a strategic end-to-end process. With deep industry expertise, we support the unique business needs of the world’s leading brands in life science and technology across tens of thousands of users located in more than 120 countries. A representative list of our customers based on our total revenues for the fiscal year ended September 30, 2016 includes Allergan, Amgen, Boston Scientific, Bristol-Myers Squibb, Boehringer Ingelheim, Johnson & Johnson and Merck in life science, and our technology customers include Intel, Fairchild, Maxim and ST Micro.

Many companies, in particular in the life science and technology industries experience a gap between the strategic importance of revenue management and the current state of their revenue management processes. Historically, companies tended to rely on a disjointed patchwork of manual processes, spreadsheets, point applications and legacy systems to manage their revenue processes. These processes and systems operate in isolation from one another and are labor intensive, error prone, inflexible and are costly, often resulting in missed revenue opportunities, suboptimal margins and increased revenue compliance risk. Current industry trends, including shortening product lifecycles, tightening compliance and regulatory controls, increasing channel complexity and growing volumes of transactional data are causing these outdated processes and legacy systems to become increasingly ineffective.

Our expertise in revenue management cloud solutions for the life science and technology industries has enabled us to develop applications designed to meet the unique, strategic needs of these industries, such as managed care and government pricing for life science companies and channel incentives based on design wins, for technology companies. Our solutions are also applicable to companies in industries that sell complicated configurations of products, such as in manufacturing, and to those that sell a complex combination of products and services, such as in financial services.

Our solutions include several complementary suites of software applications:

- Revenue Enterprise Cloud (REC)—a broad set of transactional applications that serve as a system of record for, and automate the execution of, revenue management processes such as pricing, contracting, compliance, and incentive and rebate management. Specific products include Price Management, Deal Management, Contract Management, Incentive and Rebate Management and Regulatory Compliance Management applications, which can be purchased together as a suite or as separate applications.
- Revenue Intelligence Cloud (RIC)—a broad set of business intelligence applications that provide the analytical tools to define and optimize revenue management strategies. Specific products include Price Analytics, Brand and Payer Analytics, Channel Analytics, Deal Analytics, and Global Pricing Market Analytics, which can be purchased together as a suite or as separate applications.
- Revvy Revenue Management (Revvy)—a broad set of multi-tenant cloud applications natively built on the Salesforce1 platform from Salesforce®. The Revvy solutions provide customers with predictable pricing, elastic infrastructure, and ease of implementation. Our partnership with Salesforce presents us with an opportunity to combine customer relationship management (CRM), with focus on the Lead-to-Cash process, with our Revenue Management solutions. Revvy delivers vertical-specific applications to the pharmaceutical, manufacturing, medical devices, and semiconductor and component manufacturing industries. Specific products include Configure, Price and Quote (CPQ), Global Pricing Management (GPM), Contract Lifecycle Management (CLM), Rebates Management and Customer Relationship Management.

These applications can be configured to meet the specific needs of an enterprise and enable it to maximize:

- revenue by developing more effective pricing and contracting strategies using internal data and third-party market data;
- selling time
- for both their direct sales force and indirect channels;
- by responding rapidly to quote and proposal requests;
- by processing high volumes of rebates and incentives quickly and accurately; and
- revenue per opportunity by monitoring contract performance and compliance;

Our customer deployments range from individual applications to our complete suites. Our on premise implementations are typically purchased through perpetual licenses with related implementation services typically including ongoing maintenance and application support. We recognize revenues from the sale of our licenses and related implementation services on a percentage-of-completion basis over the expected implementation period. We have taken several steps to transform our business model in order to increase the percentage of our business coming from Software as a Service (SaaS) and maintenance revenues (our recurring revenues). The Revenue Enterprise Cloud and Revenue Intelligence Cloud suites are available to customers both through the cloud and on-premise. The Revvy solutions are available only through the cloud with a subscription. We believe we have accelerated the shift in our business model to recurring revenues, as cloud-based software delivery gained wider acceptance in general and in particular in the life science and technology industries. In our SaaS arrangements where subscription fees and implementation services have a standalone value, we allocate revenue to each element in the arrangement based on a selling price hierarchy. The consideration allocated to subscription fees is recognized as revenue ratably over the term of the contract. The consideration allocated to implementation services is recognized as revenue as services are delivered.

Overview of the Life Science and Technology Industries

The life science and technology industries are large and highly fragmented. Companies in both industries market their products to a global customer base through diverse channels. Significant costs are required to launch a drug to the market globally. Regulatory pressures, consolidation, and other factors in these industries continue to drive significant focus on revenue management.

Management of the revenue lifecycle is a strategic imperative and source of competitive advantage for life science and technology companies as they address increasingly globalized markets, sophisticated buyers, complex channels and expanding volumes of data from internal and market sources.

Several trends specific to these industries further complicate revenue management.

Life Science:

- the emergence of large group purchasing, managed care organizations and integrated healthcare delivery networks drive increased pricing pressure, contract volume and complexity;
- increased customer and channel incentives and rebates result in the increased risk of extending unearned discounts and the overpayment of rebates;
- shift of purchasing influence from physicians to economic buyers makes price and commercial terms key decision making factors;
- increased spending on healthcare by governments instead of commercial entities adds further regulatory oversight to transactions; and
- increased scope of government mandates, frequency of regulatory reporting and audits, and fines, all of which increase administrative burden and monitoring costs.

Technology:

- shortened product lifecycles drive rapid pricing changes and require quick responses to quotes and competitive bidding;
- increased number of core technology products sold into different end markets with segment-specific pricing;
- cyclicality and rising R&D costs are contributing to a focus on maximizing sell time, margins and revenues;
- increased complexity of multi-tiered global distribution channels, which intensify channel conflict and price erosion;
- changing financial reporting requirements due to channel complexity; and
- increased use of off-invoice discounting to offset upfront discounts and mask end-customer pricing result in a lack of price transparency that can erode gross margins.

Challenges to Effective Revenue Management

Traditionally, companies addressed revenue management through a patchwork of manual processes and inflexible and costly custom solutions. This outdated approach to revenue management impedes the ability of companies to respond to changing market conditions, preventing them from maximizing revenue and increasing their revenue compliance risk. Critical challenges include:

- Incomplete and unreliable information for key strategic decisions. Legacy manual processes and systems used to manage the revenue lifecycle creates silos of data cause companies to make strategic marketing, pricing and resource allocation decisions that are often based on incomplete or inaccurate information. As a result, revenue strategies can be suboptimal, budgets may be misallocated, and sales and marketing efforts can fail to positively impact revenues.
- Revenue leakage due to inadequate contract management and enforcement. Customer-tailored contracts with complex pricing and commercial terms are common in many industries, in particular life science and technology. When the commercial terms of these contracts are not automated and monitored systematically, deviations from contract pricing can occur, volume commitments can be missed, unearned discounts may be given, and revenue can be lost.
- Revenue leakage due to overpayment of incentives. Life science and technology companies process massive volumes of rebates and incentives. A lack of centralized, automated and enforceable processes can result in overpayment of incentives. Revenue leakage is also driven by inconsistent global pricing, poor price concession controls, and unmet contractual volume commitments.
- Ineffective pricing across geographies and complex channels. Sophisticated buyers deploy global procurement strategies to discover and exploit regional and channel differences in pricing and contracting. The inability to enforce a single price for a specific sales opportunity across regions and channels can result in channel conflicts, which result in price and revenue erosion.

- Inaccurate financial reporting. Complex contracts and distribution channels have made it more difficult to obtain and process financial information, which can result in inaccurate financial reporting. For example, technology companies face significant complexity in financial reporting and revenue recognition at the point of sale in their distribution channels. Life science companies have significant challenges correctly accruing their massive rebate and incentive claim volumes.
- Difficulty complying with complicated government regulations. Satisfying the regulatory requirements of numerous federal and state programs is increasingly complex for life science companies. For example, government-driven programs require complex monitoring and reporting to compute and pay mandated rebates and fees under numerous federal and state programs. Government audits can expose ineffective management of these regulatory requirements and can result in penalties or program ineligibility.

Our Solutions

Customers use our solutions to achieve significant returns on investment, improve gross margins and address vital business objectives by:

- Driving optimal pricing and contracting strategies. Our customers use our solutions to develop, deploy, monitor and drive optimal pricing and contracting strategies. Our solutions consolidate information across the revenue lifecycle and provide visibility into historical volume, price and contract performance trends. Our pricing analytics enable our customers to identify untapped revenue opportunities across customers or products and make better pricing and contracting decisions.
- Realizing greater value from contracts. Our solutions enable customers to codify and automate complex pricing, incentives and financial and fulfillment terms that previously resided mainly on paper contracts. Our customers are able to maximize the value of contracts and realize additional revenue by tracking their customers' performance and enforcing contract terms. Our solutions automatically price orders in real-time and enforce contract pricing and commercial terms. Our solutions also enable customers to track and execute other revenue-enhancing financial terms, such as negotiated price increases.
- Maximizing revenue by standardizing and enforcing pricing and discounting policies. Our solutions allow customers to standardize pricing policies that can be automatically enforced across the enterprise and the channels to restrict unauthorized sales practices and discounting by sales personnel. By raising the visibility of, requiring authorization of, and enabling rapid resolution of, non-standard pricing, our customers can use our solutions to reduce unauthorized discounting. Through our channel solutions, our customers can gain visibility into and enforce channel pricing, and reduce price erosion caused by different price quotes for the same end customer.
- Executing and optimizing channel incentives. Our solutions enable customers to manage the entire incentive lifecycle, from contracting to recognition and payment. Accurate management allows our customers to eliminate unearned discounts and overpayment of incentives. Our solutions also provide our customers with greater cross channel visibility to manage the effectiveness of their channel incentive programs. With this insight, our customers can better utilize their channel incentives to positively influence channel behavior and thus increase revenue.
- Achieving accurate financial reporting. With our solutions, customers can manage all aspects of the contract-to-payment process related to calculating, monitoring, processing and triggering payments to end customers and channel intermediaries. For example, by automating all rebates, these liabilities can be accurately accrued, enabling our customers to consistently record accruals in compliance with financial accounting requirements, while ensuring customers and channels are credited on a timely basis.
- Automating government regulatory compliance to reduce revenue risk. Our solutions enable customers to systematically comply with government regulations, policies, procedures, and pricing and reporting requirements. Further, by automating and integrating contract terms, incentives and pricing into mandated price and payment calculations, our life science customers are better able to manage compliance with the terms of critical government programs that provide significant sources of revenue.

Our Competitive Strengths

We believe our key competitive strengths include:

- Comprehensive approach to revenue management. Our solutions address the end-to-end revenue management lifecycle. Our integrated, end-to-end application suites enable our customers to transform their revenue management processes from disjointed tactical operations into a cohesive, strategic, end-to-end process. Providing suites of both intelligence and transactional applications is an advantage that enables us to address both decision making and process automation.
- Deep domain knowledge. Our expertise in the revenue management needs of life science and technology companies enables us to develop solutions that address the unique demands of these industries. By incorporating best practices into our industry-specific solutions, implementation methodologies and support programs, our customers can experience significantly accelerated time to value. Our team possesses the deep industry expertise in life science and technology to enable our customers to maximize and accelerate the transformational benefits of our solutions.
- Strong installed customer base. We have established a reputation for delivering revenue management solutions to leading life science and technology customers. Our close customer relationships provide us with insight into how these companies use our solutions and help us to maintain a competitive advantage by anticipating their future requirements. We also believe that the use of our products by respected industry leaders also increases the value of our brand in these industries.
- Talented team focused on customer success. We employ experts from the life science and technology industries in key customer-facing and development roles. Additionally, we have established strong core values that start with a focus on customer success. Our customer focus has resulted in close relationships with our customers and a strong reference base for sales opportunities.
- Strategic partnerships. We have established a strategic partnership with Salesforce, a leading provider of CRM and lead-to-cash solutions. We believe this partnership will provide the opportunity to offer our Revvy and certain other solutions to many companies of all sizes in various industries.

Our Strategy

Our leadership strategy for revenue management solutions includes the following key elements:

- Increasing sales to existing customers. We plan to improve our sales execution in order to increase revenues from our existing customers by expanding their use of our solutions across their business, including selling into additional divisions and product lines, as well as international operations, and by cross-selling additional applications.
- Expanding our customer base. We believe the global market for revenue management solutions is large and underserved, and we intend to continue to make investments to drive awareness and adoption of revenue management solutions in our target industries. We intend to continue to aggressively pursue new customers by targeting senior level decision-makers and highlighting the strategic benefits of integrated revenue management.
- Introducing new applications and enhancing existing solutions. We have a long history of product innovation which has driven the development of both industry specific and horizontally applicable applications across our several complementary product suites. We have a number of new products under development as well as continued innovations to our existing products. We intend to continue to develop innovative products and expand platform capabilities and functionality to meet the evolving needs of the market.
- Expanding through the cloud. We intend to expand our customer base through continued development and deployment of our cloud-based solutions. Our cloud-based solutions significantly reduce the time and cost of implementing our revenue management solutions and, when combined with our subscription sales model, provide cost-effective, end-to-end revenue management suite.
- Expanding within the technology industry. Our first customer in the technology industry was in the semiconductor vertical and we subsequently expanded into other technology verticals such as consumer electronics and software. We plan to continue to expand into these and adjacent technology markets, including by continuing to leverage our channel data management offering.

- Expanding in the pharmaceutical industry with Global Pricing Management. A highly unoptimized area of pharmaceutical market is pricing and product launch decisions that satisfy regulatory reporting requirements across countries. This can be enabled by analyzing internal and external pricing data in a timely manner and by fostering efficient and proactive global pricing collaboration. Our applications to enable the pricing stakeholders to connect globally in real time and around a common global pricing repository, including prices and price structures, expected price events and global pricing market rules.
- Expanding into new geographies. We will evaluate taking our solutions to new geographies. We intend to evaluate markets in the Asia-Pacific region, such as Japan, as well as other markets where our life science, technology, and other solutions are in demand.

Products

We provide solutions that span the organizational and operational boundaries of functions such as sales, marketing and finance, and serve as a system of record for key revenue management processes including pricing, contracts, rebates, incentives, channel management, and regulatory compliance. Our application suites are purpose-built for the life science and technology industries and are designed to work with enterprise resource planning (ERP) and customer relationship management (CRM) applications that do not typically provide revenue management capabilities. Our solutions enable real-time pricing, contract management, vertical sales management (such as for the semiconductor industry), and channel incentives management, including rebates, incentives and regulatory compliance. Our application suites are comprised of several applications, which are integrated to work together but which may be deployed individually. For example, when deployed as an interconnected suite, our applications allow prices that are set up in the price management process to flow into the quoting process. Similarly, closed deals are captured in contract management and can be synchronized with ERP systems and into regulatory reporting as required by government agencies. Our solutions provide critical data that is typically not available in either CRM or ERP systems, such as prices, quotes, contracts, incentives and rebate claims. Our applications can also provide customers predictive revenue insight optimization of sales and marketing investments and offers, as well as and customer profitability intelligence.

Revenue Enterprise Cloud—a suite of enterprise applications designed to automate end-to-end revenue management processes including:

- Price Management. Manage the entire pricing lifecycle from price strategy to execution, serving often as the pricing engine and system of record for pricing. Implement sophisticated pricing rules and guidelines to enforce pricing consistency across geographies and transactions, resulting in accurate, real-time pricing and improved margins. By using a transactional pricing engine that references various price sources, price points and business rules, this application enables customers to reduce quote turnaround time and ensures accurate pricing across overlapping contracts, quotes, agreements or other pricing documents.
- Deal Management. Develop and optimize deals and contracts to maximize revenues by integrating lead and opportunity tracking, offer development, pricing and contract compliance to drive more accurate pricing, contract terms and performance metrics. The application supports an iterative negotiation process by escalating special discount requests based on configurable business conditions, suggests pricing guidelines and provides tools for decision makers to analyze the deal and its margins and compare the deal to similar deals. The approved quote or activated contract creates, through standard integration, a record in the ERP system so that orders posted against the contract or quote are priced correctly.
- Contract Management. Improve execution of pricing and incentives strategies on contracts, capture and enforce pricing policies and manage the entire contract lifecycle from offer development to contract compliance. The application manages all the steps to create and review contracts by pulling pricing information from the pricing engine. It includes sophisticated conditional workflow capabilities that route the contract for review and approval. The application also includes industry-specific capabilities that are designed to allow our customers to maximize individual contract value, increase overall contract revenue and reduce price erosion by systematically tracking and

enforcing compliance with contract terms and customer commitments.

- Incentive and Rebate Management. Drive more effective and accurate management of a wide range of customer and channel incentives, such as healthcare provider rebates, managed care rebates, wholesaler chargebacks and inventory management agreements by monitoring, processing, calculating and approving the payment of incentives based on contract terms, direct and indirect sales, product utilization, customer eligibility and other internal and external performance data. This application supports the process of creating and defining incentive and rebate programs and routing them through complex multi-step approval processes for final approval. Once programs are activated, the application processes direct and indirect sales lines and validates whether they are subject to and eligible for an incentive payment. The application rejects incorrect data and calculates and approves payment information that is submitted to the financial systems. This application can also be used by finance functions to calculate and track the accrual of financial liabilities and enables customers to create reports that track the effectiveness of their incentive programs.
- Regulatory Compliance Management. Enforce compliance with statutory and financial regulations and their revenue recognition policies by calculating and reporting mandatory government prices such as Average Manufacturer Price, Best Price and Non-Federal Average Manufacturer's Price, as well as process and pay government claims for Medicaid, Tricare and other mandated federal and state healthcare programs. The application can be used in conjunction with our other applications to promote effective risk management and reduce compliance risk.

Revenue Intelligence Cloud—a suite of revenue management business intelligence applications that enable customers to analyze revenue drivers and optimize revenue outcomes by delivering industry-specific visualizations, analyses and actions including:

- Price Strategy. Develop, analyze and optimize price strategies by combining internal revenue management data and external market data across customers, products, geographies and channels. Utilizing this data, this application measures and analyzes performance by employing industry-specific data visualizations and custom analyses to provide visibility into all elements of the pricing process, in addition to insights into profitability and revenue risks.
- Brand Strategy. Identify and pinpoint drivers of brand performance that influence market demand to optimize sales and marketing spend at national and regional levels from product launch to sunset with insights from internal and external syndicated data providing meaningful insights into customer behavior and competitive dynamics. Marketing and brand managers can leverage these advanced analytics capabilities to validate their sales forecasts and gain insights into how formulary status or other payer and physician dynamics affect brand performance at a regional level. Sales personnel receive actionable targeting guidance and performance against plans in order to optimize their sales efforts.
- Channel Strategy. Increase the effectiveness of global distribution by aggregating and tracking channel data for accurate and timely visibility into revenue and profit trends. This application aggregates and tracks a broad set of internal and external channel data, such as design registrations, point-of-sale claims, opportunity registrations, quotes, wins, contracts, contract compliance data, inventory and chargeback. Robust analytical capabilities allow channel and trade managers, sales teams and executives to gain accurate and timely visibility into revenue and profit trends by distributor, wholesaler, end customer, product, region and country and actionable intelligence on market trends through key metrics and alerts.
- Managed Markets Strategy. Analyze and optimize market strategy by determining which healthcare payers or insurance plans have the biggest impact on brand revenues, how formulary status influences market access across regions and how market share is trending against competition in key markets by using syndicated data to assess performance against market strategy. This application integrates external syndicated data sets with internal sales and promotional data, such as call plans, samples and sales alignment, to provide actionable intelligence.

Revvy Revenue Management —a suite of multi-tenant, software-as-a-service (SaaS) applications built on the Salesforce1 Platform designed to automate the Revenue Management lifecycle including:

- Configure, Price, Quote (CPQ): Streamlines the quote to contract process by enabling the configuration of complex services, bundles and solutions in an easy to use, intuitive user interface. This application provides seamless integration with the SAP ERP system and SAP Variant Configurator. This application can significantly reduce the average time needed for sales representatives to present a professional proposal to a prospective customer.

- Global Pricing Management (GPM): Optimize pricing and product launch decisions and satisfy regulatory reporting requirements across countries by analyzing internal and external pricing data in a timely manner and by fostering efficient and proactive global pricing collaboration. This application connects pricing stakeholders globally in real time and around a common global pricing repository, which includes prices and price structures, expected price events and international reference pricing rules.

- Customer Relationship Management (CRM): Provides sales management a consolidated view of their sales funnel with analytical capabilities to assess funnel trends overall and by customers, products, geographies, or people. This application delivers a 360 view of customer accounts such that sales representatives have full visibility into account information that will help them drive customer adoption. This application also provides powerful solution selling capabilities that allow sales representatives to maximize socket wins. This feature is also very relevant for new sales representatives or post-acquisitions when selling a consolidated portfolio.
- Contract Lifecycle Management (CLM): Enables organizations to create and manage all types of sell-side contracts in one place including service contracts, sales contracts, NDAs, statements of work, and more. The solution enables users to create and manage contracts directly from within Salesforce® or Microsoft Word® with complete visibility and control of the entire contract lifecycle. Capabilities include the ability to define and configure contract lifecycles, template and clause libraries, and the ability to redline documents directly in Microsoft Word.
- Rebates Management: Simplifies rebate and channel incentive administration to help align partners and customers with their goals. The solution enables companies to make strategic decisions with their rebate and channel incentives, define rebate programs, track and calculate rebate earnings and accruals on transactions, point-of-sale, inventory, or any data set, and provide visibility across the organization. With this application, companies can enhance the performance of their channel, distributors, partners and customers to deliver greater sales growth.

Technology

The Revenue Management application suites are architected in layers. The first layer is composed of end-user operational and analysis applications. The middle layer consists of supporting services and business engines, and the lowest layer consists of a unified technology platform used to construct and support all modules at the higher layers. The platform also provides access to the normalized operational database where the transactional revenue management data used by the operational applications are stored. It also provides access and facilitates the synchronization with the de-normalized analytics database where the revenue management data used by the analytics applications are stored.

The Revenue Enterprise Cloud and Revenue Intelligence Cloud suites are built on industry standards, such as Java EE and HTML5, which give the end-users of our applications an intuitive and familiar browsing experience. These standard technologies enable us to offer our customers a familiar technology environment that is widely understood and utilized.

The Revvy suite is built on the Salesforce1 Platform with engines built using industry standards such as Node.js. These technologies enable us to offer our customers cloud-based applications through desktop, tablet, and mobile devices including smart phones running iOS and Android.

Our technology platform has allowed us to quickly develop new applications, features and functionalities. We believe that the platform is configured to meet the needs of broad horizontal markets as well as specific vertical markets and, within each instance, to meet the specific needs of each of our customers. The flexibility of the technology platform has also allowed us to add mobile device support and deploy cloud-based solutions in a rapid and efficient manner, and we believe it will enable us to continue to add new capabilities in the future.

Our technology is designed specifically to handle the complex calculations and massive data sets associated with revenue management processes typical in the life science and technology industries. With the expansion of global deployments, scalability has also been a key requirement of our customers and has been a focus for us across all of the layers of our application suites.

Our solutions have been designed to ensure high reliability, strong security and the technology platform includes a comprehensive set of built-in features and management tools to allow optimal and continuous operation. The Revenue Enterprise Cloud and Revenue Intelligence Cloud suites are available to customers both through the cloud and on premise. The Revvy suite is available only through the cloud. We operate a reliable architecture designed to reduce the risk associated with infrastructure outages, improve system scalability and security, and allow for flexibility in deployment. The environment for our cloud-based solutions is secure and is designed to provide high availability with disaster recovery capabilities. Our cloud-based solutions are primarily operated through third-party data centers located in Colorado, Missouri, Texas, and Massachusetts and through Amazon Web Services.

Services and Customer Support

Leveraging deep industry and subject matter expertise, we offer a comprehensive set of services to assist our customers through the full lifecycle of new business transformations or upgrades of existing solutions. We help our customers define, implement and support or manage our solutions. We provide implementation services, managed services and strategic services both on and off-shore, as described below.

- Implementation services. We assist our customers in the implementation or upgrade of our Revenue Enterprise Cloud and Revenue Intelligence Cloud solutions, including project management, design and solution blueprint, process improvement, application configuration or customization, systems integration, data cleansing and migration, testing and performance tuning, production cutover and post go-live support.
- Managed services. We offer managed services for customers using either our on premise solutions or our cloud-based solutions, which include systems administration and infrastructure management, application support, and education services, including process, application and end-user training.
- Strategic services. We assist our customers in defining best practices and strategies in revenue management, assessing the capability of existing transaction and decision support solutions, developing business cases for change and transformation plans and answering strategic questions using our Revenue Intelligence Cloud suite to analyze available market data.
- Customer support. We deliver 24x7x365 customer support from support centers located at our corporate headquarters in Redwood City, California, as well as at our offices in Hyderabad, India. We offer a wide range of support offerings packaged into varying levels of access to our support resources.

For project delivery, we use a standard implementation methodology incorporating lessons learned from past work to ensure the success of our current projects. This methodology enables us to predictably estimate project costs and schedule, and proactively mitigate most implementation challenges.

In addition, we have cultivated relationships to promote and assist with the implementation of our solutions with consulting firms, including industry specialists such as HighPoint Solutions, LLC. While we do not maintain formal contractual relationships with these firms that require them to promote our solutions to their clients, we work with them for implementation and other professional services projects. As a result, these firms have expertise in our technologies and best practices and have invested in building out their practice areas with our revenue management solutions.

We deploy our resources globally through offices located in the United States, India, the United Kingdom and Switzerland.

Customers

We market and sell our solutions to customers in life sciences, technology, manufacturing, and other industries. As of September 30, 2016, we had 122 customers across all industries. For the fiscal year ended September 30, 2016, revenues from our life science and technology customers accounted for approximately 78% and 22% of our total revenues, respectively. Our customers range in size from the largest multi-national corporations to smaller companies. Our customers represent a range of sub-verticals within the larger life sciences and technology industries, including biotechnology, pharmaceutical, medical device, semiconductor, electronic component, consumer electronics and software.

We pursue close, long-term relationships with our customers because we believe strong customer relationships are the key to our success. Our agreements with our on premise customers typically provide for the purchase of a perpetual license to the software and related implementation services. A majority of these implementation services are determined at the initial purchase of the software. Customers can order additional implementation services pursuant to additional statements of work on a project by project basis, but they do not have any obligation for future purchases beyond what is agreed to in the initial contract or statement of work. Customers also purchase, at their discretion, maintenance and support services on an annual basis. Customers of our SaaS offerings enter into a subscription agreement that provides for a subscription to our applications as well as related implementation services for a specified term. We sell to multiple divisions within our customers' organizations, which have the ability to independently purchase solutions and services directly. However, we treat multiple divisions as a single customer to the extent they are part of a single organization. During the fiscal year ended September 30, 2016, no customer accounted for more than 10% of our total revenues. During the fiscal year ended September 2015 and 2014, one customer, Johnson & Johnson, accounted for approximately 11% and 15% of our total revenues.

Sales and Marketing

Our sales and marketing teams are focused on expanding relationships with existing customers and adding new customers. We primarily target large and mid-sized organizations worldwide through our direct sales force. Our sales and marketing programs are also organized by geographic region. We have historically focused our sales efforts in the United States and Western Europe, but we believe markets outside of these regions offer a significant opportunity for growth and we intend to make additional investments in sales and marketing to expand in these markets. We augment our sales professionals with solutions engineers and industry domain experts via our Center of Excellence. These professionals work closely with prospective customers during the sales process. Our marketing team supports sales with demand generation, competitive analysis and sales tools, and contributes to the sales process through lead generation, brand building, industry analyst relations, public relations and industry research.

Our sales and marketing efforts are tailored to communicate effectively to senior executives at all relevant organizations and especially in our target industries. We believe our industry expertise enables a better understanding of our customers' unique needs, including the specialized business requirements of industry segments, such as pharmaceutical, biotechnology, medical device, semiconductor, consumer electronics, manufacturing and software. As a result, we believe we are able to engage our customers during the sales process using quantitative and qualitative benchmarks built on a combination of comparative data from our customers and from surveys of these industries.

We host an annual customer conference, Rainmaker, which plays a significant role in driving sales of our solutions. Customers are invited both as attendees and participants to deliver sessions relevant to the interests and practices of the life science and technology industries. We also invite potential customers to this conference in order to leverage our strong customer relationships to accelerate sales cycles. In addition, Rainmaker provides a forum to build our eco-system of strategic partner relationships, offering partners the opportunity to work closely with our sales force on joint sales pursuits.

Research and Development

Our reputation benefits from our continuous commitment to research and development and our ability to make timely introductions of new products, technologies, features and functionality. Our research and development organization is responsible for the definition, design, development, testing, certification and ongoing maintenance of our applications. Our research and development expenses were $23.7 million, $17.9 million, and $18.7 million in the fiscal years ended September 30, 2016, 2015, and 2014, respectively. We also capitalized $1.1 million, $2.5 million and $0.4 million of software development costs in the fiscal years ended September 30, 2016, 2015, and 2014, respectively, related to the development of certain additional software as a service offering that will only be offered through the cloud. These capitalized costs include all direct employee related costs. Our efforts are focused on developing new applications and technologies and further enhancing the functionality, reliability, performance and flexibility of existing solutions. When considering improvements and enhancements to our applications, we communicate with our customers and partners who provide significant feedback for product development and innovation. We focus our efforts on anticipating customer demand and bringing our new solutions and enhancements of existing solutions to market through a seasonal release schedule (Spring, Summer, and Winter) in order to remain competitive in the marketplace. We also closely monitor the changes in business environment and regulations in our target industries, particularly in life science, where quick deliveries of updates to our applications are critical to allowing our customers to remain in compliance with government regulations.

Because our solutions often serve as a system-of-record for our customers' revenue management processes, our research and development efforts reflect the extensive IT needs of our customers in both life science and technology.

Our research and development efforts continue to focus on enhancing our solutions to meet the increasingly complex infrastructure requirements of our customers in these industries.

Our product development process is based on deep industry knowledge and familiarity with the specific requirements of individual customers, combined with continued innovation using state of the art software development processes and tools. We follow an “agile” development process, which helps us clarify requirements and receive feedback early, accommodate changes and deliver products that better match the overall needs of our customers with higher quality.

As of September 30, 2016, our research and development team consisted of 262 full-time employees globally.

Competition

The market for revenue management solutions is highly competitive, fragmented and subject to rapid changes in technology. We face competition from spreadsheet-assisted manual processes, internally developed solutions, large integrated systems vendors, providers of business process outsourcing services, horizontal revenue management solutions and smaller companies that offer point solutions. Companies lacking information technology (IT) resources often resort to spreadsheet-assisted manual processes or personal database applications. In addition, some potential customers, particularly large enterprises, may elect to develop their own internal solutions, including custom-built solutions that are designed to support the needs of a single organization. Companies with large investments in ERP or CRM applications, which do not typically provide revenue management capabilities, may extend these horizontal applications with customizations or point solution applications in order to address single or a small set of revenue management sub processes or drivers. Common horizontal applications that customers attempt to configure for this purpose in the life science and technology industries include large integrated systems vendors like SAP AG and Oracle Corporation. We also encounter competition from small independent companies, which compete on the basis of price, unique product features or functions and custom developments.

We believe we compete based primarily on the following factors:

- industry expertise;
- comprehensiveness of solution;
- reliability, scalability and performance;
- access to prospective customers through strategic partnerships;
- global system and support capabilities; and
- industry brand, reputation and customer base.

While we believe that we compete favorably on the basis of each of the factors listed above, many of our competitors have greater name recognition, larger sales and marketing budgets and greater resources than we do and may have pre-existing relationships with our potential customers, including relationships with, and access to, key decision makers within these organizations, and major distribution agreements with consultants and system integrators. Moreover, many software vendors could bundle solutions or offer them at a low price as part of a larger product sale.

With the introduction of new technologies and market entrants, we expect competition to intensify in the future. We also expect enterprise software vendors that focus on enterprise resource planning or back-office applications to enter our market with competing products. In addition, we expect sales force automation vendors to acquire or develop additional solutions that may compete with our solutions.

Intellectual Property

We rely upon a combination of copyright, trade secret, trademark and, to a lesser extent, patent laws, and we also rely on contractual restrictions, such as confidentiality agreements and licenses, to establish and protect our proprietary rights. As of September 30, 2016, we had five U.S. patent applications, one international patent application, and five issued patents expiring between 2023 and 2034. We have a number of registered and unregistered trademarks. We maintain a policy requiring our employees, consultants and other third parties to enter into confidentiality and proprietary rights agreements and to control access to our software, documentation and other proprietary information. We also believe that factors resulting from our length of presence in the market and significant research and development investments, such as our deep expertise in life science and technology revenue management practices, the ability of our solutions to handle the complexities of revenue management processes, the technological and creative skills of our personnel, the creation of new features and functionality and frequent enhancements to our solutions are essential to establishing and maintaining our technology leadership position.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or obtain and use our technology to develop products with the same functionality as our solutions. Policing unauthorized use of our technology is difficult. The laws of other countries in which we market our application suite may offer little or no effective protection of our proprietary technology. Our competitors could also independently develop technologies equivalent to ours, and our intellectual property rights may not be broad enough for us to prevent competitors from selling products incorporating those technologies. Reverse engineering, unauthorized copying or other misappropriation of our proprietary technology could enable third parties to benefit from our technology without paying us for it, which would significantly harm our business.

Employees

As of September 30, 2016, we employed 814 people, including 369 in services and customer support, 262 in research and development, 119 in sales and marketing and 64 in a general and administrative capacity. As of such date, we had 405 employees in the United States and 409 employees in international locations. We also engage a number of temporary employees and consultants. None of our employees are represented by a labor union with respect to his or her employment with us. We have not experienced any work stoppages and we consider our relations with our employees to be good.

Segments

We have one business activity, developing and monetizing revenue management solutions, and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, we have determined that we operate in a single reporting segment. For a discussion of revenues, operating profit or loss and total assets, please see Part II, Item 8 of this Form 10-K.

Geographic Information

See Note 10 of Notes to Consolidated Financial Statements included in Part II, Item 8 of this Form 10-K.

Corporate Information

We were incorporated in Delaware on December 14, 1999. Our principal offices are located at 1600 Seaport Boulevard, Suite 400, Pacific Shores Center, Building 6, Redwood City, CA 94063, and our telephone number is (650) 610-4600. Our website address is www.modeln.com. The information contained on, or that can be accessed through, our website is not part of this report. Model N is our registered trademark in the United States and in various international jurisdictions. Model N, the Model N logo and all of our product names appearing in this report are our trademarks. Other trademarks appearing in this report are the property of their respective holders.

Available Information

We file annual, quarterly and other reports, proxy statements and other information with the Securities and Exchange Commission (SEC) under the Securities Exchange Act of 1934, as amended (Exchange Act). We also make available, free of charge on the investor relations portion of our website at investor.modeln.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 soon as reasonably practicable after they are filed electronically with the SEC. You can inspect and copy our reports, proxy statements and other information filed with the SEC at the offices of the SEC’s Public Reference Room located at 100 F Street, NE, Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of Public Reference Rooms. The SEC also maintains an Internet website at http://www.sec.gov/ where you can obtain most of our SEC filings. You can also obtain paper copies of these reports, without charge, by contacting Investor Relations at (650) 610-4600.

ITEM 1A. Risk Factors

Our operating and financial results are subject to various risks and uncertainties. You should carefully consider the risks and uncertainties described below, together with all of the other information in this report, including the Consolidated Financial Statements and the related notes included elsewhere in this report, before deciding whether to invest in shares of our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks or others not specified below actually occurs, our business, financial condition, results of operations, and future prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business

We have incurred losses in the past, and we may not be profitable in the future.

We have incurred net losses of $33.1 million and $19.6 million for fiscal year ended September 30, 2016 and 2015, respectively. As of September 30, 2016, we had an accumulated deficit of $135.7 million. We expect that our expenses will increase in future periods as we implement additional initiatives designed to grow our business, including, among other things, increasing sales to existing customers, expanding our customer base, introducing new applications, enhancing existing solutions, extending into the mid-market, continuing to penetrate the technology industry and pursuing selective acquisitions. Increased operating expenses related to personnel costs such as salary, bonus, commissions and stock-based compensation as well as third-party contractors, travel-related expenses and marketing programs will also increase our expenses in future periods. In the near-term, we do not expect that our revenues will be sufficient to offset these expected increases in operating expenses, and we expect that we will incur losses. Additionally, we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may result in losses in future periods. We cannot assure you that we will again obtain and maintain profitability in the future. Any failure to return to profitability may materially and adversely affect our business, results of operations and financial condition.

Our operating results are likely to vary significantly from period to period and be unpredictable, which could cause the trading price of our common stock to decline.

Our operating results have historically varied from period to period, and we expect that this trend will continue as a result of a number of factors, many of which are outside of our control and may be difficult to predict, including:

- our ability to increase sales to and renew agreements with our existing customers;
- our ability to expand and improve the productivity of our direct sales force;
- our ability to attract and retain new customers and to improve sales execution;
- our ability to transition effectively to new leadership under a new Chief Executive Officer;
- the continued ability to transition from an on-premise to a cloud-based business model;
- the timing and volume of incremental customer purchases of our cloud-based solutions, which may vary from period to period based on a customer's needs at a particular time;
- our ability to successfully expand our business domestically and internationally organically or through acquisitions;
- disruptions in our relationships with partners;
- the timing of new orders and revenue recognition for new and prior period orders;
- changes in the competitive landscape of our industry, including mergers or consolidation among our customers or competitors;
- the complexity of implementations and the scheduling and staffing of the related personnel, each of which can affect the timing and duration of revenue recognition;
- issues related to changes in customers' business requirements, project scope, implementations or market needs;
- the mix of revenues in any particular period between license and implementation, and SaaS and maintenance;
- the timing of upfront recognition of sales commission expense relative to the deferred recognition of our revenues;
- the timing of recognition of payment of royalties;
- the timing of our annual payment and recognition of employee non-equity incentive and bonus payments;
- the budgeting cycles and purchasing practices of customers;
- changes in customer requirements or market needs;
- delays or reductions in information technology spending and resulting variability in customer orders from quarter to quarter;
- delays or difficulties encountered during customer implementations, including customer requests for changes to the implementation schedule;
- the timing and success of new product or service introductions by us or our competitors;
- the amount and timing of any customer refunds or credits;
- our ability to accurately estimate the costs associated with any fixed bid projects;
- deferral of orders from customers in anticipation of new solutions or solution enhancements announced by us or our competitors;
- the length of time for the sale and implementation of our solutions to be complete, and our level of upfront investments prior to the period we begin generating revenues associated with such investments;
- our ability to successfully expand our business domestically and internationally;

- the amount and timing of our operating expenses and capital expenditures;
- price competition;
- the rate of expansion and productivity of our direct sales force;
- regulatory compliance costs;
- sales commissions expenses related to large transactions;
- technical difficulties or interruptions in the delivery of our cloud-based solutions;
- seasonality or cyclical fluctuations in our industries;
- future accounting pronouncements or changes in our accounting policies;
- increases or decreases in our expenses caused by fluctuations in foreign currency exchange rates, as a significant portion of our expenses are incurred and paid in currencies other than the U.S. dollar;
- general economic conditions, both domestically and in our foreign markets; and
- entry of new competitors into our market.

Any one of the factors above or discussed elsewhere in this report or the cumulative effect of some of the factors referred to above may result in significant fluctuations in our financial and other operating results. This variability and unpredictability could result in our failure to meet expectations of investors for our revenues or other operating results for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our common stock could decrease.

We must improve our sales execution and increase our sales channels and opportunities in order to grow our revenues, and if we are unsuccessful, our operating results may be adversely affected.

We must improve our sales execution in order to, among other things, increase the number of our sales opportunities and grow our revenue. We must improve the market awareness of our solutions and expand our relationships with our channel partners in order to increase our revenues. Further, we believe that we must continue to develop our relationships with new and existing customers and partners, and create additional sales opportunities to effectively and efficiently extend our geographic reach and market penetration. Our efforts to improve our sales execution could result in a material increase in our sales and marketing expense and general and administrative expense, and there can be no assurance that such efforts will be successful. We have experienced challenges in sales execution in recent fiscal quarters, and if we are unable to significantly improve our sales execution, increase the awareness of solutions, create additional sales opportunities, expand our relationships with channel partners, leverage our relationship with strategic partners, such as Salesforce, or effectively manage the costs associated with these efforts, our operating results and financial condition could be materially and adversely affected.

Failure to adequately expand and train our direct sales force will impede our growth.

We rely almost exclusively on our direct sales force to sell our solutions. We believe that our future growth will depend, to a significant extent, on the continued development of our direct sales force and its ability to manage and retain our existing customer base, expand the sales of our solutions to existing customers and obtain new customers. Because our software is complex and often must interoperate with complex computing requirements, it can take longer for our sales personnel to become fully productive compared to other software companies. Our ability to achieve significant growth in revenues in the future will depend, in large part, on our success in recruiting, training and retaining a sufficient number of direct sales personnel. New hires require significant training and may, in some cases, take more than a year before becoming fully productive, if at all. If we are unable to hire and develop sufficient numbers of productive direct sales personnel, and if these sales personnel are unable to achieve full productivity, sales of our solutions will suffer and our growth will be impeded.

Our sales cycles are time-consuming, and it is difficult for us to predict when or if sales will occur and when we will begin to recognize the revenues from our future sales.

Our sales efforts are often targeted at larger enterprise customers, and as a result, we face greater costs, must devote greater sales support to individual customers, have longer sales cycles and have less predictability in completing some of our sales. Also, sales to large enterprises often require us to provide greater levels of education regarding the use and benefits of our solutions. We believe that our customers view the purchase of our solutions as a significant and strategic decision. As a result, customers carefully evaluate our solutions, often over long periods with a variety of internal constituencies. In addition, the sales of our solutions may be subject to delays if the customer has lengthy internal budgeting, approval and evaluation processes, which are quite common in the context of introducing large enterprise-wide technology solutions. As a result it is difficult to predict the timing of our future sales.

We depend on our management team and our key sales and development and services personnel, and the loss of one or more key employees or groups could harm our business and prevent us from implementing our business plan in a timely manner.

Our success depends on the expertise, efficacy and continued services of our executive officers, who are geographically dispersed. We have in the past and may in the future continue to experience changes in our executive management team resulting from the hiring or departure of executives, which may be disruptive to our business. For example, in November 2016, Zack Rinat re-assumed the role of Chief Executive Officer on an interim basis to replace Edward Sander who left the company. In addition, in April 2016, we hired a new Senior Vice President, Global Services, and Senior Vice President, Product Marketing, who are tasked with implementing initiatives to expand and enhance our solution delivery and marketing strategy, respectively, and in July 2016, we hired a new Senior Vice

President, Human Resources, who is tasked with implementing initiatives to improve recruiting and our organizational health. The impact of hiring new executives and implementing these initiatives may not be immediately realized. We are also substantially dependent on the continued service of our existing development and services personnel because of their familiarity with the inherent complexities of our solutions.

Our personnel do not have employment arrangements that require them to continue to work for us for any specified period and, therefore, they could terminate their employment with us at any time. We do not maintain key person life insurance policies on any of our employees. The loss of one or more of our key employees or groups could seriously harm our business.

Our transition from an on-premise to a cloud-based business model is subject to numerous risks and uncertainties.

Our business model has shifted away from sales of on-premise software licenses to focus on sales of subscriptions for our cloud-based solutions, which provide our customers the right to access certain of our software in a hosted environment for a specified subscription period. This cloud-based strategy may give rise to a number of risks, including the following:

- if customers are uncomfortable with cloud-based solutions and desire only perpetual licenses, we may experience longer than anticipated sales cycles and sales of our cloud-based solutions may lag behind our expectations;
- our cloud-based strategy may raise concerns among our customer base, including concerns regarding changes to pricing over time, service availability, information security of a cloud-based solution and access to files while offline or once a subscription has expired;
- we may be unsuccessful in maintaining our target pricing, adoption and projected renewal rates;
- we may select a target price that is not optimal and could negatively affect our sales or earnings; and
- we may incur costs at a higher than forecasted rate as we expand our cloud-based solutions.

Our cloud-based strategy may also require a considerable investment of technical, financial, legal and sales resources, and a scalable organization. Market acceptance of such offerings is affected by a variety of factors, including but not limited to: security, reliability, scalability, customization, performance, current license terms, customer preference, customer concerns with entrusting a third party to store and manage their data, public concerns regarding privacy and the enactment of restrictive laws or regulations. Whether our business model transition will prove successful and will accomplish our business and financial objectives is subject to numerous uncertainties, including but not limited to: customer demand, renewal rates, channel acceptance, our ability to further develop and scale infrastructure, our ability to include functionality and usability in such solutions that address customer requirements, tax and accounting implications, pricing and our costs. In addition, the metrics we use to gauge the status of our business may evolve over the course of the transition as significant trends emerge.

If we are unable to successfully establish our cloud-based strategy and navigate our business model transition in light of the foregoing risks and uncertainties, our results of operations could be negatively impacted.

Because we recognize a majority of our SaaS and maintenance revenues from our customers over the term of their agreements, downturns or upturns in sales of our cloud-based solutions may not be immediately reflected in our operating results.

SaaS and maintenance revenues primarily include subscription and related implementation fees from customers accessing our cloud-based solutions and revenues associated with maintenance contracts from license customers. We recognize a majority of our SaaS and maintenance revenues over the terms of our customer agreements, which are typically one year or longer in some cases. As a result, most of our quarterly SaaS and maintenance revenues result from agreements entered into during previous quarters. Consequently, a shortfall in sales of our cloud-based solutions or renewal of maintenance and support agreements in any quarter may not significantly reduce our SaaS and maintenance revenues for that quarter but would negatively affect SaaS and maintenance revenues in future quarters. Accordingly, the effect of significant downturns in sales of our cloud-based solutions or renewals of our maintenance and support agreements may not be fully reflected in our results of operations until future periods. We may be unable to adjust our cost structure to compensate for this potential shortfall in SaaS and maintenance revenues. Our revenue recognition model for our cloud-based solutions and maintenance and support agreements also makes it difficult for us to rapidly increase our revenues through additional sales in any period, as a significant amount of our revenues are recognized over the applicable agreement term. As a result, changes in the volume of sales of our cloud-based solutions or the renewals of our maintenance and support agreements in a particular period would not be fully reflected in our revenues until future periods.

Our revenues are dependent on our ability to maintain and expand existing customer relationships and our ability to attract new customers.

The continued growth of our revenues is dependent in part on our ability to expand the use of our solutions by existing customers and attract new customers. Likewise, it is also important that customers using our on premise solutions renew their maintenance agreements and that customers using our cloud-based solutions renew their subscription agreements with us. Our customers have no obligation to renew their agreements after the expiration of the initial term, and there can be no assurance that they will do so. We have had in the past and may in the future have disputes with customers regarding our solutions, which may impact such customers' decisions to continue to use our solutions and pay for maintenance and support in the future.

If we are unable to expand our customers' use of our solutions, sell additional solutions to our customers, maintain our renewal rates for maintenance and subscription agreements and expand our customer base, our revenues may decline or fail to increase at historical growth rates, which could adversely affect our business and operating results. In addition, if we experience customer dissatisfaction with customers in the future, we may find it more difficult to increase use of our solutions within our existing customer base and it may be more difficult to attract new customers, or we may be required to grant credits or refunds, any of which could negatively impact our operating results and materially harm our business.

The loss of one or more of our key customers could slow our revenue growth or cause our revenues to decline.

A substantial portion of our total revenues in any given period may come from a relatively small number of customers. As of September 30, 2016, we had 122 customers. Although our largest customers typically change from period to period, for the fiscal year ended September 30, 2016, our 15 largest customers accounted for more than 58% of our total revenues, but no customer accounted for more than 10% of our total revenues in 2016. We expect that we will continue to depend upon a relatively small number of customers for a significant portion of our total revenues for the foreseeable future. The loss of any of our significant customers or groups of customers for any reason, or a change of relationship with any of our key customers may cause a significant decrease in our total revenues.

Additionally, mergers or consolidations among our customers in the life science and semiconductor industries, both of which are currently undergoing significant consolidation, could reduce the number of our customers and could adversely affect our revenues and sales. In particular, if our customers are acquired by entities that are not also our customers, that do not use our solutions or that have more favorable contract terms and choose to discontinue, reduce or change the terms of their use of our solutions, our business and operating results could be materially and adversely affected.

We may acquire other businesses, which could require significant management attention, disrupt our business, dilute stockholder value and adversely affect our operating results.

As part of our business strategy, we have in the past and may in the future make investments in other companies, solutions or technologies to, among other reasons, expand or enhance our product offerings. We may not be able to find suitable acquisition candidates, and we may not be able to complete acquisitions on favorable terms, if at all. If and when we do complete acquisitions, we may not ultimately strengthen our competitive position or achieve our goals, and any acquisitions we complete could be viewed negatively by users or investors. In addition, if we fail to integrate successfully such acquisitions, or the technologies associated with such acquisitions, into our company, the revenues and operating results of the combined company could be adversely affected. Any integration process will require significant time and resources, and we may not be able to manage the process successfully. We may not successfully evaluate or utilize the acquired technology and accurately forecast the financial impact of an acquisition transaction, including accounting charges. We may have to pay cash, incur debt or issue equity securities to pay for any such acquisition, each of which could affect our financial condition or the value of our capital stock. The sale of equity or issuance of debt to finance any such acquisitions could result in dilution to our stockholders. If we incur more debt it would result in increased fixed obligations and could also subject us to covenants or other restrictions that would impede our ability to manage our operations.

We may face risks related to securities litigation that could result in significant legal expenses and settlement or damage awards.

We have been in the past and may in the future become subject to claims and litigation alleging violations of the securities laws or other related claims, which could harm our business and require us to incur significant costs. We are generally obliged, to the extent permitted by law, to indemnify our current and former directors and officers who are named as defendants in these types of lawsuits. Regardless of the outcome, litigation may require significant attention from management and could result in significant legal expenses, settlement costs or damage awards that could have a material impact on our financial position, results of operations and cash flows.

If our solutions experience data security breaches, and there is unauthorized access to our customers' data, we may lose current or future customers, our reputation and business may be harmed and we may incur significant liabilities.

Our solutions are used by our customers to manage and store personally identifiable information, proprietary information and sensitive or confidential data relating to their business. Although we maintain security features in our solutions, our security measures may not detect or prevent hacker interceptions, break-ins, security breaches, the introduction of viruses or malicious code, such as "ransomware", and other disruptions that may jeopardize the security of information stored in and transmitted by our solutions. Cyber-attacks and other malicious Internet-based activity continue to increase generally. A party that is able to circumvent our security measures in our solutions could misappropriate our or our customers' proprietary or confidential information, cause interruption in their operations, damage or misuse their computer systems and misuse any information that they misappropriate. Because techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures.

There can be no assurance that limitation of liability provisions in our contracts would be applicable, enforceable or adequate in connection with a security breach, or would otherwise protect us from any such liabilities or damages with respect to any particular claim. We also cannot be sure that our existing general liability insurance coverage and coverage for errors or omissions will continue to be available on acceptable terms or will be available in sufficient amounts to cover one or more large claims, or that the insurer will not deny coverage as to any future claim. One or more large claims may be asserted against us that exceed our available insurance coverage, or changes in our insurance policies may occur, including premium increases or the imposition of large deductible or co-insurance requirements. If any compromise of the security of our solutions were to occur, we may be subject to litigation, indemnity obligations and other possible liabilities, and we may lose existing customers and the ability to attract future customers, any of which could harm our reputation, business, financial condition and results of operations and result in significant liability.

Our implementation cycle is lengthy and variable, depends upon factors outside our control and could cause us to expend significant time and resources prior to earning associated revenues.

The implementation and testing of our solutions typically range from a few months to up to eighteen months, and unexpected implementation delays and difficulties can occur. Implementing our solutions typically involves integration with our customers' systems, as well as adding their data to our system. This can be complex, time-consuming and expensive for our customers and can result in delays in the implementation and deployment of our solutions. The lengthy and variable implementation cycle may also have a negative impact on the timing of our revenues, causing our revenues and results of operations to vary significantly from period to period.

A substantial majority of our total revenues have come from our Revenue Enterprise Cloud suite, and decreases in demand for our Revenue Enterprise Cloud suite could adversely affect our results of operations and financial condition.

Historically, a substantial majority of our total revenues has been associated with our Revenue Enterprise Cloud suite, whether deployed as individual applications or as a complete suite. We expect our Revenue Enterprise Cloud suite to continue to generate a substantial majority of our total revenues for the foreseeable future. Declines and variability in demand for our Revenue Enterprise Cloud suite could occur for a number of reasons, including improved products or product versions being offered by competitors, competitive pricing pressures, failure to release new or enhanced versions on a timely basis, technological changes that we are unable to address or that change the way our customers utilize our solutions, reductions in technology spending, export restrictions or other regulatory or legislative actions that could limit our ability to sell those products to key customer or market segments. Our business, results of operations, financial condition and cash flows would be adversely affected by a decline in demand for our Revenue Enterprise Cloud suite.

Our customers often require significant configuration efforts to match their complex business processes. The failure to meet their requirements could result in customer disputes, loss of anticipated revenues and additional costs, which could harm our business.

Our customers often require significant configuration services to address their unique business processes. Supporting such a diversity of configured settings and implementations could become difficult as the number of customers we serve grows. In addition, supporting our customers could require us to devote significant development services and support personnel and strain our personnel resources and infrastructure. We have had in the past and may in the future have disputes with customers regarding the performance and implementation of our solutions. If we are unable to address the needs of our customers in a timely fashion, our customers may decide to seek to terminate their relationship, renew on less favorable terms, not renew their maintenance agreements or subscriptions, fail to purchase additional solutions or services or assert legal claims against us. If any of these were to occur, our revenues may decline or we may be required to refund amounts to customers and our operating results may be harmed.

Our future growth is, in large part, dependent upon the increasing adoption of revenue management solutions.

Revenue management is at an early stage of market development and adoption, and the extent to which revenue management solutions will become widely adopted remains uncertain. It is difficult to predict customer adoption rates, customer demand for revenue management solutions, including our solutions in particular, the future growth rate and size of this market and the timing of the introduction of additional competitive solutions. Any expansion of the revenue management market depends on a number of factors, including the cost, performance and perceived value associated with revenue management solutions. For example, many companies have invested substantial personnel, infrastructure and financial resources in other revenue management infrastructure and therefore may be reluctant to implement solutions such as ours. Additionally, organizations that use legacy revenue management products may believe that these products sufficiently address their revenue management needs. Because this market is relatively undeveloped, we must spend considerable time educating customers as to the benefits of our solutions. If revenue management solutions do not achieve widespread adoption, or if there is a reduction in demand for revenue management solutions caused by a lack of customer acceptance, technological challenges, competing technologies and products, decreases in corporate spending or otherwise, it could result in lower sales, reduced renewal and upsell rates and decreased revenues and our business could be adversely affected.

If we are unable to enhance existing solutions and develop new applications that achieve market acceptance or that keep pace with technological developments, our business could be harmed.

Our ability to increase revenues from existing customers and attract new customers depends in large part on our ability to enhance and improve our existing solutions and to develop and introduce new applications. The success of any enhancement or new application depends on several factors, including timely completion, adequate quality testing, introduction and market acceptance. Any enhancement or new application that we develop (such as our Revvy solutions and Revenue Management as a Service) or acquire may not be introduced in a timely or cost-effective manner, may contain defects or may not achieve the broad market acceptance necessary to generate significant revenues. If we are unable to successfully enhance our existing solutions and develop new applications to meet customer requirements, our business and operating results will be adversely affected.

Because we designed our solutions to operate on a variety of network, hardware and software platforms, we will need to continuously modify and enhance our solutions to keep pace with changes in networking, internet-related hardware, and software, communication, browser and database technologies. If we are unable to respond in a timely manner to these rapid technological developments in a cost-effective manner, our solutions may become less marketable and less competitive or obsolete and our operating results may be negatively impacted.

We are highly dependent upon the life science industry, and factors that adversely affect this industry could also adversely affect us.

Our future growth depends, in large part, upon continued sales to companies in the life science industry. Demand for our solutions could be affected by factors that adversely affect demand for the underlying life science products and services that are purchased and sold pursuant to contracts managed through our solutions. The life science industry is affected by certain factors, including the emergence of large group purchasing and managed care organizations and integrated healthcare delivery networks, increased customer and channel incentives and rebates, the shift of purchasing influence from physicians to economic buyers, increased spending on healthcare by governments instead of commercial entities and increased scope of government mandates, frequency of regulatory reporting and audits, and fines. Accordingly, our future operating results could be materially and adversely affected as a result of factors that affect the life science industry generally.

Our efforts to expand the adoption of our solutions in the technology industry will be affected by our ability to provide solutions that adequately address trends in that industry.

We are attempting to expand the use of our solutions by companies in the technology industry, and our future growth depends in part on our ability to increase sales of solutions to customers in this industry and potentially other industries. The technology industry is affected by many factors, including shortening of product lifecycles, core technology products being sold into different end markets with distinct pricing, increasing complexity of multi-tiered global distribution channels, changing financial reporting requirements due to channel complexity and increasing use of off-invoice discounting. If our solutions are not perceived by existing or potential customers in the technology industry as capable of providing revenue management tools that will assist them in adequately addressing these trends, then our efforts to expand the adoption of our solutions in this industry may not be successful, which would adversely impact our business and operating results.

Most of our implementation contracts are on a time and materials basis and may be terminated by the customer.

The contracts under which we perform most of our implementation services may have a term typically ranging between a few months to up to eighteen months and are on a time and materials basis and may be terminated by the customer at any time. If an implementation project is terminated sooner than we anticipated or a portion of the implementation is delayed, we would lose the anticipated revenues that we might not be able to replace or it may take significant time to replace the lost revenues with other work or we may be unable to eliminate the associated costs. Consequently, we may recognize fewer revenues than we anticipated or incur unnecessary costs, and our results of operations in subsequent periods could be materially lower than expected.

Our efforts to expand our solutions into other verticals within the life science and technology industries or other industries may not succeed and may reduce our revenue growth rate. Even if we are successful in doing so, such efforts may be costly and may impact our ability to achieve profitability.

Our solutions are currently designed primarily for customers in certain verticals of the life science and technology industries and potentially into other industries outside of the life science and technology industries. Our ability to attract new customers and increase our revenues depends in part on our ability to enter into new industries and verticals. Developing and marketing new solutions to serve other industries and verticals will require us to devote substantial additional resources in advance of consummating new sales or realizing additional revenues. Our ability to leverage the expertise we have developed in the life science and technology industries into new industries is unproven and it is likely that we will be required to hire additional personnel, partner with additional third parties and incur considerable research and development expense in order to gain and develop additional expertise for new industries where we lack experience and expertise.

Our efforts to expand our solutions beyond the verticals within the life science and technology industries in which we have already developed expertise may not be successful and may reduce our revenue growth rate. Any early stage interest in our solutions in areas beyond the industries we already address may not result in long term success or significant revenues for us. Even if we achieve long-term success in expanding our solutions into other industries and verticals, the costs associated with such expansion may be high, which may impact our ability to achieve profitability.

The market for cloud-based solutions is at an early stage of acceptance relative to on premise solutions, and if it does not develop or develops more slowly than we expect, our business could be harmed.

Although gaining wider acceptance, the market for cloud-based solutions is at an early stage relative to on premise solutions, and these types of deployments may not achieve and sustain high levels of demand and market acceptance. We plan to accelerate the shift in our business model to recurring revenues, including revenues derived from our cloud-based solutions, by continuing to expand the implementation of our cloud-based solutions both within our current installed base of customers as well as new customers and additional markets in the future. Many companies have invested substantial personnel and financial resources to integrate traditional enterprise software into their businesses, and therefore may be reluctant or unwilling to migrate to a cloud-based solution. Other factors that may affect the market acceptance of cloud-based solutions include:

- perceived security capabilities and reliability;
- perceived concerns about ability to scale operations for large enterprise customers;
- concerns with entrusting a third party to store and manage critical data;
- the level of configurability or customizability of the solutions; and
- ability to perform at or near the capabilities of our on premise solutions.

If organizations do not perceive the benefits of our cloud-based solutions, or if our competitors or new market entrants are able to develop cloud-based solutions that are or are perceived to be more effective than ours, our plan to accelerate the shift in our business model to recurring revenues may not succeed or may develop more slowly than we expect, if at all, or may result in short-term declines in recognized revenue, any of which would adversely affect our business.

We rely on a small number of third-party service providers to host and deliver our cloud-based solutions, and any interruptions or delays in services from these third parties could impair the delivery of our cloud-based solutions and harm our business.

We currently operate our cloud-based solutions primarily through third party data centers and through Amazon Web Services. We do not control the operation of these facilities. These facilities are vulnerable to damage or interruption from natural disasters, fires, power loss, telecommunications failures and similar events. They are also subject to break-ins, computer viruses, sabotage, intentional acts of vandalism and other misconduct. The occurrence of a natural disaster or an act of terrorism, a decision to close the facilities without adequate notice or other unanticipated problems could result in lengthy interruptions, which would have a serious adverse impact on our business. Additionally, our data center agreements are of limited duration, subject to early termination rights in certain circumstances, may include inadequate indemnification and liability provisions, and the providers of our data centers have no obligation to renew their agreements with us on commercially reasonable terms, or at all.

If we continue to add data centers and add capacity in our existing data centers, we may transfer data to other locations. Despite precautions taken during this process, any unsuccessful data transfers may impair the delivery of our service. Interruptions in our service, data loss or corruption may subject us to liability to our customers, cause customers to terminate their agreements and adversely affect our renewal rates and our ability to attract new customers. Data transfers may also subject us to regional privacy and data protection laws that apply to the transmission of customer data across international borders.

We also depend on access to the Internet through third-party bandwidth providers to operate our cloud-based solution. If we lose the services of one or more of our bandwidth providers, or if these providers experience outages, for any reason, we could experience disruption in delivering our cloud-based solutions or we could be required to retain the services of a replacement bandwidth provider. Any Internet outages or delays could adversely affect our ability to provide our solutions to our customers. Our data center operations also rely heavily on the availability of electricity, which also comes from third-party providers. If we or the third-party data center facilities that we use to deliver our services were to experience a major power outage or if the cost of electricity were to increase significantly, our operations and financial results could be harmed. If we or our third-party data centers were to experience a major power outage, we or they would have to rely on back-up generators, which might not work properly or might not provide an adequate supply during a major power outage. Such a power outage could result in a significant disruption of our business.

Changes in privacy laws, regulations and standards may cause our business to suffer.

Personal privacy and data security have become significant issues in the United States, Europe and in many other jurisdictions where we offer our solutions. The regulatory framework for privacy and security issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. For example, the Court of Justice of the European Union ruled in October 2015 that the US-EU Safe Harbor framework was invalid, and the framework's successor, the US-EU Privacy Shield, while adopted, has been criticized and challenged by multiple privacy advocacy groups. Furthermore, federal, state or foreign government bodies or agencies have in the past adopted, and may in the future adopt, laws and regulations affecting data privacy. Industry organizations also regularly adopt and advocate for new standards in this area. In the United States, these include rules and regulations promulgated under the authority of federal agencies and state attorneys general and legislatures and consumer protection agencies. Internationally, many jurisdictions in which we operate have established their own data security and privacy legal framework with which we or our customers must comply, including but not limited to, the Data Protection Directive (Directive) established in the European Union and data protection legislation of the individual member states subject to the Directive. The Directive will be replaced starting in 2018 with the recently adopted European General Data Protection Regulation, which will impose additional obligations and risks upon our business. In many jurisdictions, enforcement actions and consequences for noncompliance are also rising. In addition to government regulation, privacy advocates and industry groups may propose new and different self-regulatory standards that either legally or contractually applies to us.

Any inability to adequately address privacy and security concerns, even if unfounded, or comply with applicable privacy and data security laws, regulations and policies, could result in additional cost and liability to us, damage our reputation, inhibit sales and adversely affect our business. Furthermore, the costs of compliance with, and other burdens imposed by, the laws, regulations, and policies that are applicable to the businesses of our customers may limit the use and adoption of, and reduce the overall demand for, our solutions. Privacy and data security concerns, whether valid or not valid, may inhibit market adoption of our solutions, particularly in foreign countries. If we are not able to adjust to changing laws, regulations and standards related to privacy or security, our business may be harmed.

We license technology from third parties, and our inability to maintain those licenses could harm our business. Certain third-party technology that we use may be difficult to replace or could cause errors or failures of our service.

We incorporate technology that we purchase or license from third parties, including hardware and software, into our solutions. We cannot be certain that this technology will continue to be available on commercially reasonable terms, or at all. We cannot be certain that our licensors are not infringing the intellectual property rights of third parties or that our licensors have sufficient rights to the licensed intellectual property in all jurisdictions in which we may sell our solutions. Some of our agreements with our licensors may be terminated for convenience by them. If we are unable to continue to license any of this technology because of intellectual property infringement claims brought by third parties against our licensors or against us, or if we are unable to continue our license agreements or enter into new licenses on commercially reasonable terms, our ability to develop and sell solutions containing that technology would be severely limited and our business could be harmed. Additionally, if we are unable to license or obtain the necessary technology from third parties, we may be forced to acquire or develop alternative technology of lower quality or performance standards. This would limit and delay our ability to offer new or competitive solutions and increase our costs of production. In addition, errors or defects in third-party hardware or software used in our cloud-based solutions could result in errors or a failure of our cloud-based solutions, which could harm our business.

If our solutions fail to perform properly, our reputation and customer relationships could be harmed, our market share could decline and we could be subject to liability claims.

Our solutions are inherently complex and may contain material defects or errors. Any defects in solution functionality or that cause interruptions in availability could result in:

- lost or delayed market acceptance and sales;
- reductions in current-period total revenues;
- breach of warranty or other contract breach or misrepresentation claims;
- sales credits or refunds to our customers;
- loss of customers;
- diversion of development and customer service resources; and
- injury to our reputation.

The costs incurred in correcting any material defects or errors might be substantial and could adversely affect our operating results. Because our customers often use our solutions as a system of record and many of our customers are subject to regulation of pricing of their products or otherwise have complex pricing commitments and revenue recognition policies, errors could result in an inability to process sales or lead to a violation of pricing requirements or misreporting of revenues by our customers that could potentially expose them to fines or other substantial claims or penalties. Accordingly, we could face increased exposure to product liability and warranty claims, litigation and other disputes and claims, resulting in potentially material losses and costs. Our limitation of liability provisions in our customer agreements may not be sufficient to protect us against any such claims.

Given the large amount of data that our solutions collect and manage, it is possible that failures or errors in our software could result in data loss or corruption, or cause the information that we collect to be incomplete or contain inaccuracies that our customers regard as significant. We may be required to issue credits or refunds or indemnify or otherwise be liable to our customers or third parties for damages they may incur resulting from certain of these events.

Our insurance may be inadequate or may not be available in the future on acceptable terms, or at all. In addition, our policy may not cover any claim against us for claims related to any product defects or errors or other indirect or consequential damages and defending a suit, regardless of its merit, could be costly and divert management’s attention.

The market in which we participate is highly competitive, and if we do not compete effectively, our operating results could be harmed.

The market for revenue management solutions is highly competitive, fragmented and subject to rapid changes in technology. We face competition from spreadsheet-assisted manual processes, internally developed solutions, large integrated systems vendors, providers of business process outsourcing services and smaller companies that offer point solutions.

Companies lacking IT resources often resort to spreadsheet-assisted manual processes or personal database applications. In addition, some potential customers, particularly large enterprises, may elect to develop their own internal solutions, including custom-built solutions that are designed to support the needs of a single organization. Companies with large investments in packaged ERP or CRM applications, which do not typically provide revenue management capabilities, may extend these horizontal applications with configurations or point solution applications in order to address one or a small set of revenue management sub processes or drivers. Common horizontal applications that customers attempt to configure for this purpose in the life science and technology industries include large integrated systems vendors like SAP AG and Oracle Corporation. We also encounter competition from small independent companies, which compete on the basis of price, unique product features or functions and custom developments.

Many of our competitors have greater name recognition, larger sales and marketing budgets and greater resources than we do and may have pre-existing relationships with our potential customers, including relationships with, and access to, key decision makers within these organizations, and major distribution agreements with consultants and system integrators. Moreover, many software vendors could bundle solutions or offer them at a low price as part of a larger product sale.

With the introduction of new technologies and market entrants, we expect competition to intensify in the future. We also expect enterprise software vendors that focus on enterprise resource planning or back-office applications to enter our market with competing products. In addition, we expect sales force automation vendors to acquire or develop additional solutions that may compete with our solutions. If we fail to compete effectively, our business will be harmed. In addition, pricing pressures and increased competition generally could result in reduced sales, reduced margins, losses or the failure of our solutions to achieve or maintain more widespread market acceptance, any of which could harm our business.

If we are not able to maintain and enhance our brand, our business and operating results may be adversely affected.

We believe that maintaining and enhancing the “Model N” brand identity is critical to our relationships with our customers and partners and to our ability to attract new customers and partners. The successful promotion of our brand will depend largely upon our marketing efforts, our ability to continue to offer high-quality solutions and our ability to successfully differentiate our solutions from those of our competitors. Our brand promotion activities may not be successful or yield increased revenues. In addition, independent industry analysts often provide reviews of our solution, as well as those of our competitors, and perception of our solution in the marketplace may be significantly influenced by these reviews. If these reviews are negative, or less positive as compared to those of our competitors’ products and services, our brand may be adversely affected.

The promotion of our brand requires us to make substantial expenditures, and we anticipate that the expenditures will increase as our market becomes more competitive and as we expand into new verticals within the life science and technology industries. To the extent that these activities yield increased revenues, these revenues may not offset the increased expenses we incur. If we do not successfully maintain and enhance our brand, our business may not grow, we may have reduced pricing power relative to competitors with stronger brands and we could lose customers and partners, all of which would adversely affect our business operations and financial results.

Our organization continues to grow and experience rapid changes. If we fail to manage our growth, we may be unable to execute our business plan, maintain high levels of service or adequately address competitive challenges, and our business and operating results could be adversely affected.

We have experienced and may continue to experience growth in our headcount and operations, which has placed and will continue to place significant demands on our management and our operational and financial infrastructure. As we grow, we must effectively integrate, develop and motivate a significant number of new employees, while maintaining the effectiveness of our business execution and the beneficial aspects of our corporate culture. In particular, we intend to continue to make directed and substantial investments to expand our research and development, sales and marketing, and general and administrative organizations, as well as our international operations. Failure to effectively manage organizational changes as well as integrating and training new sales and marketing personnel, could result in attrition of existing employees and difficulties in executing on our business plan, implementing customer requests, declines in quality or customer satisfaction, increases in costs and difficulties in introducing new features or other operational difficulties, and any of these difficulties could adversely impact our business performance and results of operations.

Additionally, our growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of new solutions or enhancements to existing solutions. For example, since it may take as long as six months to hire and train a new member of our implementation services staff, we make decisions regarding the size of our implementation services staff based upon our expectations with respect to customer demand for our solutions. If these expectations are incorrect, and we increase the size of our implementation services organization without experiencing an increase in sales of our solutions, we will experience reductions in our gross and operating margins and net income.

To effectively manage growth, we must continue to improve our operational, financial and management controls, and our reporting systems and procedures by, among other things:

- improving our key business applications, processes and IT infrastructure to support our business needs;
- enhancing information and communication systems to ensure that our employees and offices around the world are well-coordinated and can effectively communicate with each other and our growing base of customers;
- enhancing our internal controls to ensure timely and accurate reporting of all of our operations and financial results; and
- appropriately documenting our IT systems and our business processes.

If we are unable to maintain successful relationships with system integrators, our business operations, financial results and growth prospects could be adversely affected.

Our relationships with system integrators are generally non-exclusive, which means they may recommend to their customers the solutions of several different companies, including solutions that compete with ours, and they may also assist in the implementation of software or systems that compete with ours. If our system integrators do not choose to continue to refer our solutions, assist in implementing our solutions, choose to use greater efforts to market and sell their own solutions or those of our competitors, or fail to meet the needs of our customers, our ability to grow our business and sell our solutions may be adversely affected. The loss of a substantial number of our system integrators, our possible inability to replace them or the failure to recruit additional system integrators could harm our business.

Our ability to achieve revenue growth in the future will depend in part on our success in maintaining successful relationships with our system integrators and in helping our system integrators enhance their ability to independently market and implement our solutions. Our growth in revenues, particularly in international markets, will be influenced by the development and maintenance of relationships with these companies. Although we have established relationships with some of the leading system integrators, our solutions compete directly against the solutions of other leading system integrators. We are unable to control the resources that our system integrators commit to implementing our solutions or the quality of such implementation. If they do not commit sufficient resources to these activities, or if we are unable to maintain our relationships with these system integrators or otherwise develop and expand our indirect distribution channel, our business, results of operations, financial condition or cash flows could be adversely affected.

Any failure to offer high-quality customer support services may adversely affect our relationships with our customers and harm our financial results.

Once our solutions are implemented, our customers use our support organization to resolve technical issues relating to our solutions. In addition, we also believe that our success in selling our solutions is highly dependent on our business reputation and on favorable recommendations from our existing customers. Any failure to maintain high-quality customer support, or a market perception that we do not maintain high-quality support, could harm our reputation, adversely affect our ability to maintain existing customers or sell our solutions to existing and prospective customers, and harm our business, operating results and financial condition.

We may be unable to respond quickly enough to accommodate short-term increases in customer demand for support services. Increased customer demand for these services, without corresponding revenues, could also increase costs and adversely affect our operating results.

If our solutions do not interoperate with our customers’ IT infrastructure, sales of our solutions could be negatively affected, which would harm our business.

Our solutions must interoperate with our customers’ existing IT infrastructure, which often have different specifications, complex configuration, utilize multiple protocol standards, deploy products from multiple vendors and contain multiple generations of products that have been added over time. As a result, when problems occur in a network, it may be difficult to identify the sources of these problems. If we find errors in the existing products or defects in the hardware used in our customers’ IT infrastructure or problematic network configurations or settings, we may have to modify our solutions or platform so that our solutions will interoperate with our customers’ IT infrastructure. Any delays in identifying the sources of problems or in providing necessary modifications to our solutions could have a negative impact on our reputation and our customers’ satisfaction with our solutions, and our ability to sell solutions could be adversely affected.

Incorrect or improper implementation or use of our solutions could result in customer dissatisfaction and negatively affect our business, operations, financial results and growth prospects.

Our customers and third-party partners may need training in the proper use of and the variety of benefits that can be derived from our solutions to maximize their potential. If our solutions are not implemented or used correctly or as intended, inadequate performance may result. Since our customers rely on our solutions and customer support to manage key areas of their businesses, the incorrect or improper implementation or use of our solutions, our failure to train customers on how to efficiently and effectively use our solutions or our failure to provide services to our customers, may result in negative publicity, failure of customers to renew their SaaS or maintenance agreements or potentially make legal claims against us. Also, as we continue to expand our customer base, any failure by us to properly provide these services will likely result in lost opportunities for follow-on sales of our solutions.

Competition for our target employees is intense, and we may not be able to attract and retain the quality employees we need to support our planned growth.

Our future success depends, in part, upon our ability to recruit and retain key management, technical, sales, marketing, finance, and other critical personnel. Competition for qualified management, technical and other personnel is intense, and we may not be successful in attracting and retaining such personnel. If we fail to attract and retain qualified employees, including internationally, our ability to grow our business could be harmed. Competition for people with the specific skills that we require is significant. In order to attract and retain personnel in a competitive marketplace, we believe that we must provide a competitive compensation package, including cash and equity-based compensation. Volatility in our stock price may from time to time adversely affect our ability to recruit or retain employees. If we are unable to hire and retain qualified employees, or conversely, if we fail to manage employee performance or reduce staffing levels when required by market conditions, our business and operating results could be adversely affected.

Our significant international operations subject us to additional risks that can adversely affect our business, results of operations and financial condition.

We have significant international operations, including in emerging markets such as India, and we are continuing to expand our international operations as part of our growth strategy. As of September 30, 2016, approximately 48% of our total employees were located in India, where we conduct a portion of our research and development activities, implementation services and support services. Our current international operations and our plans to expand our international operations have placed, and will continue to place, a strain on our employees, management systems and other resources.

Operating in international markets requires significant resources and management attention and will subject us to regulatory, economic and political risks and competition that are different from those in the United States. Because of our limited experience with international operations, we cannot assure that our international expansion efforts will be successful or that returns on such investments will be achieved in the future. In addition, our international operations may fail to succeed due to other risks inherent in operating businesses internationally, including:

- our lack of familiarity with commercial and social norms and customs in international countries which may adversely affect our ability to recruit, retain and manage employees in these countries;
- difficulties and costs associated with staffing and managing foreign operations;
- the potential diversion of management’s attention to oversee and direct operations that are geographically distant from our U.S. headquarters;
- compliance with multiple, conflicting and changing governmental laws and regulations, including employment, tax, privacy and data protection laws and regulations;
- legal systems in which our ability to enforce and protect our rights may be different or less effective than in the United States and in which the ultimate result of dispute resolution is more difficult to predict;
- greater difficulty collecting accounts receivable and longer payment cycles;

- higher employee costs and difficulty in terminating non-performing employees;
- differences in workplace cultures;
- unexpected changes in regulatory requirements;
- the need to adapt our solutions for specific countries;
- our ability to comply with differing technical and certification requirements outside the United States;

- tariffs, export controls and other non-tariff barriers such as quotas and local content rules;
- more limited protection for intellectual property rights in some countries;
- adverse tax consequences, including as a result of transfer pricing adjustments involving our foreign operations;
- fluctuations in currency exchange rates;
- anti-bribery compliance by us or our partners;
- restrictions on the transfer of funds; and
- new and different sources of competition.

Our failure to manage any of these risks successfully could harm our existing and future international operations and seriously impair our overall business.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and operating results.

Our sales contracts are primarily denominated in U.S. dollars, and therefore, substantially all of our revenues are not subject to foreign currency risk. However, a strengthening of the U.S. dollar could increase the real cost of our solutions to our customers outside of the United States, which could adversely affect our financial condition and operating results. In addition, an increasing portion of our operating expenses are incurred in India, are denominated in Indian Rupees and are subject to fluctuations due to changes in foreign currency exchange rates.

We may be sued by third parties for alleged infringement of their proprietary rights which could result in significant costs and harm our business.

There is considerable patent and other intellectual property development activity in our industry. Our success depends upon us not infringing upon the intellectual property rights of others. Companies in the software and technology industries, including some of our current and potential competitors, own large numbers of patents, copyrights, trademarks and trade secrets and frequently enter into litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. In addition, many of these companies have the capability to dedicate substantially greater resources to enforce their intellectual property rights and to defend claims that may be brought against them. The litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our potential patents may provide little or no deterrence. We have received, and may in the future receive, notices that claim we have infringed, misappropriated or otherwise violated other parties' intellectual property rights. To the extent we gain greater visibility, we face a higher risk of being the subject of intellectual property infringement claims, which is not uncommon with respect to software technologies in general and information security technology in particular. There may be third-party intellectual property rights, including issued or pending patents that cover significant aspects of our technologies or business methods. Any intellectual property claims, with or without merit, could be very time consuming, could be expensive to settle or litigate and could divert our management's attention and other resources. These claims could also subject us to significant liability for damages, potentially including treble damages if we are found to have willfully infringed patents or copyrights. These claims could also result in our having to stop using technology found to be in violation of a third party's rights. We might be required to seek a license for the intellectual property, which may not be available on reasonable terms or at all. Even if a license were available, we could be required to pay significant royalties, which would increase our operating expenses. As a result, we may be required to develop alternative non-infringing technology, which could require significant effort and expense. If we cannot license or develop technology for any infringing aspect of our business, we would be forced to limit or stop sales of one or more of our solutions or features of our solutions and may be unable to compete effectively. Any of these results would harm our business, operating results and financial condition.

In addition, our agreements with customers and partners include indemnification provisions under which we agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement and, in some cases, for damages caused by us to property or persons. Large indemnity payments could harm our business, operating results and financial condition.

Our use of open source and third-party technology could impose limitations on our ability to commercialize our solutions.

We use open source software in our solutions and in our services engagements on behalf of customers. As we increasingly handle configured implementation of our solutions on behalf of customers, we use additional open source software that we obtain from all over the world. Although we try to monitor our use of open source software, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market our solutions. In such event, we could be required to seek licenses from third parties in order to continue offering our solutions, to re-engineer our technology or to discontinue offering our solutions in the event re-engineering cannot be accomplished on a timely basis, any of which could cause us to breach contracts, harm our reputation, result in customer losses or claims, increase our costs or otherwise adversely affect our business, operating results and financial condition.

Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar solutions with lower development effort and time and ultimately could result in a loss of product sales for us.

Any failure to protect our intellectual property rights could impair our ability to protect our proprietary technology and our brand, which would substantially harm our business and operating results.

The success of our business and the ability to compete depend in part upon our ability to protect and enforce our patents, trade secrets, trademarks, copyrights and other intellectual property rights. We primarily rely on patent, copyright, trade secret and trademark laws, trade secret protection and confidentiality or license agreements with our employees, customers, partners and others to protect our intellectual property rights. However, the steps we take to protect our intellectual property rights may be inadequate or we may be unable to secure intellectual property protection for all of our solutions. Any of our copyrights, trademarks or other intellectual property rights may be challenged by others or invalidated through administrative process or litigation. Competitors may independently develop technologies or solutions that are substantially equivalent or superior to our solutions or that inappropriately incorporate our proprietary technology into their solutions. Competitors may hire our former employees who may misappropriate our proprietary technology or misuse our confidential information. Although we rely in part upon confidentiality agreements with our employees, consultants and other third parties to protect our trade secrets and other confidential information, those agreements may not effectively prevent disclosure of trade secrets and other confidential information and may not provide an adequate remedy in the event of misappropriation of trade secrets or unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and confidential information, and in such cases we could not assert any trade secret rights against such parties.

In order to protect our intellectual property rights, we may be required to spend significant resources to monitor and protect these rights. Litigation to protect and enforce our intellectual property rights could be costly, time-consuming and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits attacking the validity and enforceability of our intellectual property rights. Any litigation, whether or not it is resolved in our favor, could result in significant expense to us and divert the efforts of our technical and management personnel, which may adversely affect our business, operating results and financial condition. Certain jurisdictions may not provide adequate legal infrastructure for effective protection of our intellectual property rights. Changing legal interpretations of liability for unauthorized use of our solutions or lessened sensitivity by corporate, government or institutional users to refraining from intellectual property piracy or other infringements of intellectual property could also harm our business.

It is possible that innovations for which we seek patent protection may not be protectable. Additionally, the process of obtaining patent protection is expensive and time consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Given the cost, effort, risks and downside of obtaining patent protection, including the requirement to ultimately disclose the invention to the public, we may not choose to seek patent protection for certain innovations. However, such patent protection could later prove to be important to our business. Even if issued, there can be no assurance that any patents will have the coverage originally sought or adequately protect our intellectual property, as the legal standards relating to the validity, enforceability and scope of protection of patent and other intellectual property rights are uncertain. Any patents that are issued may be invalidated or otherwise limited, or may lapse or may be abandoned, enabling other companies to better develop products that compete with our solutions, which could adversely affect our competitive business position, business prospects and financial condition.

We cannot assure you that the measures we have taken to protect our intellectual property will adequately protect us, and any failure to protect our intellectual property could harm our business.

We may not be able to enforce our intellectual property rights throughout the world, which could adversely impact our international operations and business.

The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection. This could make it difficult for us to stop the infringement or misappropriation of our intellectual property rights. Proceedings to enforce our proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop, which could have a material adverse effect on our business, financial condition and results of operations.

Additional government regulations may reduce the size of market for our solutions, harm demand for our solutions, force us to update our solutions or implement changes in our services and increase our costs of doing business.

Any changes in government regulations that impact our customers or their end customers could have a harmful effect on our business by reducing the size of our addressable market, forcing us to update the solutions we offer or otherwise increasing our costs. For example, with respect to our life science customers, regulatory developments related to government-sponsored entitlement programs or U.S. Food and Drug Administration or foreign equivalent regulation of, or denial, withholding or withdrawal of approval of, our customers’ products could lead to a lack of demand for our solutions. Other changes in government regulations, in areas such as privacy, export compliance or anti-bribery statutes, such as the U.S. Foreign Corrupt Practices Act, could require us to implement changes in our solutions, services or operations that increase our cost of doing business and thereby adversely affecting our financial performance.

Failure to comply with certain certifications and standards pertaining to our solutions, as may be required by governmental authorities or other standards-setting bodies could harm our business. Additionally, failure to comply with governmental laws and regulations could harm our business.

Customers may require our solutions to comply with certain security or other certifications and standards, which are promulgated by governmental authorities or other standards-setting bodies. The requirements necessary to comply with these certifications and standards are complex and often change significantly. If our solutions are late in achieving or fail to achieve compliance with these certifications and standards, including when they revised or otherwise change, or our competitors achieve compliance with these certifications and standards, we may be disqualified from selling our solutions to such customers, or at a competitive disadvantage, which would harm our business, operating results and financial condition.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

Certain of our solutions are subject to U.S. export controls and may be exported outside the United States only with the required export license or through an export license exception. Additionally, we incorporate encryption technology into our solutions, which may require additional filings prior to export. If we were to fail to comply with U.S. export licensing requirements, U.S. customs regulations, U.S. economic sanctions or other laws, we could be subject to substantial civil and criminal penalties, including fines, incarceration for responsible employees and managers, and the possible loss of export or import privileges. Obtaining the necessary export license for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products to U.S. embargoed or sanctioned countries, governments and persons. Even though we take precautions to ensure that our channel partners comply with all relevant regulations, any failure by our channel partners to comply with such regulations could have negative consequences, including reputational harm, government investigations and penalties.

In addition, various countries regulate the import of certain encryption technology, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our solutions or could limit our customers’ ability to implement our solutions in those countries. Changes in our solutions or changes in export and import regulations may create delays in the introduction of our solutions into international markets, prevent our customers with international operations from deploying our solutions globally or, in some cases, prevent the export or import of our solutions to certain countries, governments or person’s altogether. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could result in decreased use of our solutions by, or in our decreased ability to export or sell our solutions to, existing or potential customers with international operations. Any decreased use of our solutions or limitation on our ability to export or sell our solutions would likely adversely affect our business, financial condition, and operating results.

If we are required to collect sales and use taxes on the solutions we sell, we may be subject to liability for past sales and our future sales may decrease.

State and local taxing jurisdictions have differing rules and regulations governing sales and use taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of sales taxes to our subscription services in various jurisdictions is unclear. Although we have historically collected and remitted sales tax in certain circumstances, it is possible that we could face sales tax audits and that our liability for these taxes could exceed our estimates as state tax authorities could still assert that we are obligated to collect additional amounts as taxes from our customers and remit those taxes to those authorities. We could also be subject to audits with respect to state and international jurisdictions for which we have not accrued tax liabilities. A successful assertion that we should be collecting additional sales or other taxes on our services in jurisdictions where we have not historically done so and do not accrue for sales taxes could result in substantial tax liabilities for past sales, discourage customers from purchasing our solutions or otherwise harm our business and operating results.

Uncertainty in global economic conditions may adversely affect our business, operating results or financial condition.

Our operations and performance depend on global economic conditions. Challenging or uncertain economic conditions make it difficult for our customers and potential customers to accurately forecast and plan future business activities, and may cause our customers and potential customers to slow or reduce spending, or vary order frequency, on our solutions. Furthermore, during challenging or uncertain economic times, our customers may face difficulties gaining timely access to sufficient credit and experience decreasing cash flow, which could impact their willingness to make purchases and their ability to make timely payments to us. Global economic conditions have in the past and could continue to have an adverse effect on demand for our solutions, including new bookings and renewal and upsell rates, on our ability to predict future operating results and on our financial condition and operating results. If global economic conditions remain uncertain or deteriorate, it may materially impact our business, operating results and financial condition.

Our business is subject to the risks of earthquakes, fire, power outages, floods and other catastrophic events, and to interruption by manmade problems such as terrorism.

Our corporate headquarters and facilities are located near known earthquake fault zones and are vulnerable to significant damage from earthquakes. The corporate headquarters and facilities are also vulnerable to damage or interruption from human error, intentional bad acts, earthquakes, hurricanes, floods, fires, war, terrorist attacks, power losses, hardware failures, systems failures, telecommunications failures and similar events. The occurrence of a natural disaster or an act of terrorism or vandalism or other misconduct or other unanticipated problems with our facilities could result in lengthy interruptions to our services. If any disaster were to occur, our ability to operate our business at our facilities could be seriously or completely impaired or destroyed. The insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions.

Our financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

Generally accepted accounting principles in the United States (U.S. GAAP) is subject to interpretation by the Financial Accounting Standards Board (FASB), the American Institute of Certified Public Accountants, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. For example, in May 2014, the FASB issued accounting standards update No. 2014-09 (Topic 606), Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. We will be required to implement this guidance in the first quarter of our fiscal year 2019. We have not yet determined the effect of the standard on our ongoing financial reporting. Any difficulties in implementing this guidance could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us. Additionally, the implementation of this guidance or a change in other principles or interpretations could have a significant effect on our financial results, and could affect the reporting of transactions completed before the announcement of a change.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below expectations of securities analysts and investors, resulting in a decline in our stock price.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. For example, our revenue recognition policy is complex and we often must make estimates and assumptions that could prove to be inaccurate. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about revenue recognition, capitalized software, the carrying values of assets, taxes, liabilities, equity, revenues and expenses that are not readily apparent from other sources. Our operating results may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors, resulting in a decline in our stock price. Significant assumptions and estimates used in preparing our Consolidated Financial Statements include those related to revenue recognition, share-based compensation and income taxes.

We incur significant costs and devote substantial management time as a result of operating as a public company, which may increase when we are no longer an “emerging growth company.”

As a public company, we incur significant legal, accounting and other expenses. For example, we are required to comply with the requirements of the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley Act) and the Dodd Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC and the New York Stock Exchange, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Despite reform made possible by the Jumpstart Our Business Startups Act (JOBS Act), which allows us to take advantage of certain exemptions from various reporting requirements as long as we remain an “emerging growth company,” compliance with these requirements results in legal and financial compliance costs and make some activities more time consuming.

Additionally, as of September 30, 2018, we will no longer be an emerging growth company and will need to comply with additional disclosure and reporting requirements, including an attestation report on internal control over financial reporting as of September 30, 2018 issued by our independent registered public accounting firm. We will also be required to include additional information regarding executive compensation in our 2019 proxy statement and hold a nonbinding advisory vote on executive compensation at our 2019 annual meeting of stockholders. These additional reporting requirements may increase our legal and financial compliance costs and cause management and other personnel to divert attention from operational and other business matters to devote substantial time to these public company requirements.

If we fail to maintain an effective system of internal controls, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act and the rules and regulations of the applicable listing exchange. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting and financial compliance costs, make some activities more difficult, time consuming and costly, and place significant strain on our personnel, systems and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, weaknesses in our internal controls may be discovered in the future. Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal controls also could adversely affect the results of periodic management evaluations and, if applicable, annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we are required to include in our periodic reports we file with the SEC under Section 404 of the Sarbanes-Oxley Act. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock.

In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs, and provide significant management oversight. Any failure to maintain the adequacy of our internal controls, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could materially impair our ability to operate our business. In the event that our internal controls are perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and our stock price could decline. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the New York Stock Exchange.

Our independent registered public accounting firm is not required to formally attest to the effectiveness of our internal control over financial reporting until after we are no longer an emerging growth company. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed or operating. Our remediation efforts may not enable us to avoid a material weakness in the future.

We may need additional capital, and we cannot be certain that additional financing will be available.

We may require additional financing in the future. Our ability to obtain financing will depend, among other things, on our development efforts, business plans, operating performance and condition of the capital markets at the time we seek financing. We cannot assure you that additional financing will be available to us on favorable terms when required, or at all. If we raise additional funds through the issuance of equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to the rights of our common stock or preferred stock, and our stockholders may experience dilution.

If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our solutions;
- continue to expand our sales and marketing and research and development organizations;
- acquire complementary technologies, solutions or businesses;
- expand operations, in the United States or internationally;
- hire, train and retain employees; or
- respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could seriously harm our business, financial condition, and operating results.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the U.S. Internal Revenue Code of 1986, as amended (Code), and similar state law provisions, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses (NOLs) to offset future taxable income. If our existing NOLs are subject to limitations arising from ownership changes, our ability to utilize NOLs could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, also could result in an ownership change under Section 382 of the Code. There is also a risk that our NOLs could expire, or otherwise be unavailable to offset future income tax liabilities due to changes in the law, including regulatory changes, such as suspensions on the use of NOLs or other unforeseen reasons. For these reasons, we may not be able to utilize a material portion of the NOLs, even if we attain profitability. For example, certain NOLs will begin to expire in 2016.

Risks Related to the Ownership of Our Common Stock

Our stock price may be volatile, and you may be unable to sell your shares at or above your purchase price.

The market price of our common stock could be subject to wide fluctuations in response to, among other things, the factors described in this “Risk Factors” section or otherwise and other factors beyond our control, such as fluctuations in the valuations of companies perceived by investors to be comparable to us.

Furthermore, the stock markets have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations, as well as general economic, systemic, political and market conditions, such as recessions, interest rate changes or international currency fluctuations, may negatively affect the market price of our common stock.

In the past, many companies that have experienced volatility in the market price of their stock have become subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention, which could harm our business.

If securities analysts do not publish research or reports or if they publish unfavorable or inaccurate research about our business and our stock, the price of our stock and the trading volume could decline.

We expect that the trading market for our common stock will be affected by research or reports that industry or financial analysts publish about us or our business. There are many large, well-established companies active in our industry and portions of the markets in which we compete, which may mean that we receive less widespread analyst coverage than our competitors. If one or more of the analysts who covers us downgrades their evaluations of our company or our stock, the price of our stock could decline. If one or more of these analysts cease coverage of our company, our stock may lose visibility in the market, which in turn could cause our stock price to decline.

Our restated certificate of incorporation and restated bylaws and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our restated certificate of incorporation and restated bylaws contain provisions that could delay or prevent a change in control of us. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- providing for a classified board of directors with staggered, three year terms;
- authorizing the board of directors to issue, without stockholder approval, preferred stock with rights senior to those of our common stock;
- providing that vacancies on our board of directors be filled by appointment by the board of directors;
- prohibiting stockholder action by written consent;
- requiring that certain litigation must be brought in Delaware;
- limiting the persons who may call special meetings of stockholders; and
- requiring advance notification of stockholder nominations and proposals.

In addition, we are subject to Section 203 of the Delaware General Corporation Law which may prohibit large stockholders, in particular those owning fifteen percent or more of our outstanding voting stock, from merging or combining with us for a certain period of time without the consent of our board of directors.

These and other provision in our restated certificate of incorporation and our restated bylaws and under the Delaware General Corporation Law could discourage potential takeover attempts, reduce the price that investors might be willing to pay in the future for shares of our common stock and result in the market price of our common stock being lower than it would be without these provisions.

We do not anticipate paying any dividends on our common stock.

We do not anticipate paying any cash dividends on our common stock in the foreseeable future. If we do not pay cash dividends, you would receive a return on your investment in our common stock only if the market price of our common stock is greater at the time you sell your shares than the market price at the time you bought your shares.

ITEM 1B. Unresolved Staff Comments

None.

ITEM 2. Properties

Our corporate headquarters are located in Redwood City, California, and consist of approximately 34,600 square feet of space under a lease that expires in December 2017. Our cloud-based solutions are operated through third-party data centers located in Colorado, Missouri, Texas and Massachusetts and through Amazon Web Services.

We have additional U.S. offices in California, Colorado, Illinois, Massachusetts and New Jersey. We also have offices in international locations in India, Switzerland and the United Kingdom. We believe our facilities are adequate for our current needs and for the foreseeable future; however, we will continue to seek additional space as needed to accommodate our growth. See Note 6 to the Consolidated Financial Statements and “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Contractual Payment Obligations” for information regarding our lease obligations.

ITEM 3. Legal Proceedings

We are not currently a party to any pending material legal proceedings. From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputational harm and other factors.

ITEM 4. Mine Safety Disclosure

Not applicable

PART II

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information for Common Stock

Model N common stock is traded on the New York Stock Exchange under the symbol "MODN". The high and low sales prices per share of common stock for each of the quarters in the last two fiscal years were as follows:

	Fiscal Year 2016		Fiscal Year 2015	
	High	Low	High	Low
Fiscal Quarter	$11.84	$9.76	$11.34	$8.77
Second Quarter	$11.33	$9.19	$12.57	$10.30
Third Quarter	$13.98	$10.24	$12.70	$10.98
Fourth Quarter	$13.87	$9.75	$12.24	$9.75

Dividend Policy

We have never declared or paid, and do not anticipate declaring or paying in the foreseeable future, any cash dividends on our capital stock. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors, subject to applicable laws and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects, and other factors our board of directors may deem relevant.

Stockholders

As of November 11, 2016, there were 97 holders of record of our common stock, including The Depository Trust Company, which holds shares of our common stock on behalf of an indeterminate number of beneficial owners.

Securities Authorized for Issuance under Equity Compensation Plans

The information called for by this item is incorporated by reference to our Proxy Statement for the Annual Meeting of Stockholders to be held in 2017 (Proxy Statement). See Part III, Item 12 "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information."

Stock Performance Graph

The following shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our other filings under the Exchange Act or the Securities Act of 1933, as amended, except to the extent we specifically incorporate it by reference into such filing.

This chart compares the cumulative total return on our common stock with that of the NASDAQ Composite Index and the NASDAQ Computer Index. The chart assumes $100 was invested at the close of market on March 20, 2013 (the first day our common stock began trading publicly on the NYSE), in our common stock, the NASDAQ Composite Index and the NASDAQ Computer Index, and assumes the reinvestment of any dividends.

	3/20/2013	3/31/2013	6/30/2013	9/30/2013
Model N	$ 100.00	$ 127.87	$ 150.71	$ 63.87
NASDAQ Composite Index	$ 100.00	$ 100.41	$ 104.58	$ 115.90
NASDAQ Computer Index	$ 100.00	$ 99.28	$ 101.16	$ 112.32
	12/31/2013	3/31/2014	6/30/2014	9/30/2014
Model N	$ 76.06	$ 65.23	$ 71.29	$ 63.61
NASDAQ Composite Index	$ 128.34	$ 129.03	$ 135.46	$ 138.08
NASDAQ Computer Index	$ 128.13	$ 130.12	$ 140.68	$ 147.67
	12/31/2014	3/31/2015	6/30/2015	9/30/2015
Model N	$ 68.52	$ 77.16	$ 76.84	$ 64.58
NASDAQ Composite Index	$ 145.54	$ 150.60	$ 153.24	$ 141.98
NASDAQ Computer Index	$ 153.60	$ 155.57	$ 155.89	$ 148.06
	12/31/2015	3/31/2016	6/30/2016	9/30/2016
Model N	$ 72.00	$ 69.48	$ 86.13	$ 71.68
NASDAQ Composite Index	$ 153.88	$ 149.65	$ 148.81	$ 163.24
NASDAQ Computer Index	$ 163.19	$ 164.59	$ 158.09	$ 181.12

Use of Proceeds from Public Offering of Common Stock

On March 19, 2013, our registration statements on Form S-1 (File Nos. 333-186668 and 333-187370) were declared effective by the SEC for our initial public offering (IPO) pursuant to which we sold an aggregate of 7,751,000 shares of our common stock (inclusive of 1,011,000 shares of common stock pursuant to the full exercise of an overallotment option granted to the underwriters and 740,000 shares of common stock sold by a selling stockholder) at a price to the public of $15.50 per share. There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on March 20, 2013 pursuant to Rule 424(b).

ITEM 6. Selected Consolidated Financial Data

The consolidated statement of operations data for the fiscal years ended September 30, 2016, 2015 and 2014 and the selected consolidated balance sheet data as of September 30, 2016 and 2015 are derived from our audited consolidated financial statements included in this Form 10-K. The consolidated statement of operations data for fiscal years ended September 30, 2013 and 2012, and the selected consolidated balance sheet data as of September 30, 2014, 2013 and 2012 are derived from audited consolidated financial statements that are not included in the Form 10-K. The information set forth below is not necessarily indicative of results of future operations, and should be read in conjunction with Item 7, “Management's Discussion and Analysis of Financial Condition and Results of Operations” and the consolidated financial statements and related notes included in Part II, Item 8, "Consolidated Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

	Fiscal Years Ended September 30,				
	2016	2015	2014	2013	2012
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenues:					
License and implementation	$20,579	$36,172	$35,333	$59,134	$49,756
SaaS and maintenance	86,392	57,596	46,423	42,770	34,502
Total revenues	106,971	93,768	81,756	101,904	84,258
Cost of Revenues:					
License and implementation	12,976	15,555	16,652	26,832	22,483
SaaS and maintenance	40,717	26,014	21,092	19,350	18,053
Total cost of revenues	53,693	41,569	37,744	46,182	40,536
Gross profit	53,278	52,199	44,012	55,722	43,722
Operating Expenses:					
Research and development	23,706	17,906	18,710	16,772	17,695
Sales and marketing	32,261	30,300	25,998	21,144	19,640
General and administrative	30,051	23,132	19,671	16,063	10,584
Restructuring	—	—	26	1,215	—
Total operating expenses	86,018	71,338	64,405	55,194	47,919
(Loss) income from operations	(32,740)	(19,139)	(20,393)	528	(4,197)
Interest (income) expense, net	(50)	(6)	(12)	357	655
Other (income) expenses, net	86	(22)	116	658	540
Loss before income taxes	(32,776)	(19,111)	(20,497)	(487)	(5,392)
Provision for income taxes	335	528	384	439	301
Net loss	$(33,111)	$(19,639)	$(20,881)	$(926)	$(5,693)
Net loss per share attributable to common stockholders (1):					
Basic and diluted	$(1.21)	$(0.76)	$(0.86)	$(0.06)	$(0.73)
Weighted average number of shares used in computing net loss per share attributable to common stockholders (1):					
Basic and diluted	27,379	26,015	24,399	15,979	7,815
Other Financial Data:					
Adjusted EBITDA (2)	$(12,571)	$(3,332)	$(6,241)	$9,621	$4,957
SaaS Revenues (3)	$48,688	$22,923	$14,688	$13,667	$9,053

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(1) See Note 9 to our consolidated financial statements for a description of the method used to compute basic and diluted net loss per share attributable to common stockholders.

(2) See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Measure" in Item 7 for more information and a reconciliation of adjusted EBITDA to net loss, the most directly comparable financial measure calculated and presented in accordance with generally accepted accounting principles in the United States.

(3) SaaS revenues for cloud-based solutions are derived from subscription fees from customers accessing our cloud-based solutions, as well as from associated implementation services.

	As of September 30,				
	2016	2015	2014	2013	2012
	(in thousands)				
Consolidated Balance Sheet Data					
Cash and cash equivalents	$66,149	$91,019	$101,006	$103,350	$15,768
Working capital (deficit)	48,588	74,814	82,370	86,842	(12,584)
Total assets	112,967	121,970	129,131	134,472	40,598
Loan obligations, current and long-term	—	—	—	—	5,127
Total liabilities	46,765	38,908	40,167	40,854	51,085
Convertible preferred stock	—	—	—	—	41,776
Total stockholders' equity (deficit)	66,202	83,062	88,964	93,618	(52,263)

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and related notes that are included elsewhere in this report. This discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors" or in other parts of this report.

Overview

We are a leader in Revenue Management solutions for the life science and technology companies. Driving mission critical business processes such as configure, price and quote (CPQ), rebates management and regulatory compliance, our solutions transform the revenue lifecycle from a series of disjointed operations into a strategic end-to-end process. With deep industry expertise, we support the unique business needs of the world's leading brands in life sciences and high technology across tens of thousands of users in more than 120 countries.

Our solutions are comprised of several complementary software applications: Revenue Enterprise Cloud, Revenue Intelligence Cloud and Revvy Revenue Management. Sales of our solutions range from individual applications to complete suites, and deployments may vary from specific divisions or territories to enterprise-wide implementations.

We derive revenues primarily from the sale of our cloud-based and on premise solutions and related implementation services, as well as maintenance and support and managed support services. We price our solutions based on a number of factors, including revenues under management and number of users. Our license and implementation revenues are comprised of sales of perpetual license and related implementation services, which revenues are recognized over the implementation period, which commences when implementation work begins and typically ranges from a few months to three years. Maintenance and support revenues are recognized ratably over the support period, which is typically one year. SaaS revenues for cloud-based solutions are derived from subscription fees from customers accessing our cloud-based solutions, as well as from associated implementation services. The actual timing of revenue recognition may vary based on our customers' implementation requirements and availability of our services personnel.

We market and sell our solutions to customers in the life science and technology industries. While we have historically generated the substantial majority of our revenues from companies in the life science industry, we have also grown our base of technology customers and intend to continue to focus on increasing the revenues from customers in the technology industry. Our most significant customers in any given period generally vary from period to period due to the timing of implementation and related revenue recognition over those periods of larger projects. No customer accounted for more than 10% of total revenues during the fiscal year ended September 30, 2016. During the fiscal years ended September 30, 2015 and 2014, one customer, Johnson and Johnson, accounted for approximately 11% and 15% of our total revenues. For the fiscal year ended September 30, 2016, approximately10% of our total revenues were derived from customers located outside the United States.

For the fiscal years ended September 30, 2016, 2015 and 2014, our total revenues were $107.0 million, $93.8 million and $81.8 million, respectively, representing a year-over-year increase of approximately 14% from 2015 to 2016 and year-over-over increase of approximately 15% from 2014 to 2015. Revenues increased in the 2016 fiscal year primarily due to improvement in sales execution, new product offerings and acquisition of Channelinsight. Improvement in sales execution in fiscal year 2016 resulted in the acquisition of new customers and an increase in our revenues.

Key Business Metrics

In addition to the measures of financial performance presented in our Consolidated Financial Statements, we use adjusted EBITDA to evaluate and manage our business We use adjusted EBITDA internally to manage the business, and we believe it is useful for investors to compare key financial data from various periods. See "—Non-GAAP Financial

Measure” below.

Key Components of Results of Operations

Revenues

Revenues are comprised of license and implementation revenues and SaaS and maintenance revenues.

License and Implementation

License and implementation revenues are generated from the sale of software licenses for our on premise solutions and related implementation services. We expect our license and implementation revenues for the fiscal year 2017 to be lower both in absolute dollars and as a percentage of total revenue from those recorded in the fiscal year ended on September 30, 2016, primarily due to increased focus on subscription revenues, which are recorded in our SaaS and maintenance line, and which has been gaining wider acceptance as a delivery model.

SaaS and Maintenance

SaaS and maintenance revenues primarily include subscription and related implementation fees from customers accessing our cloud-based solutions and revenues associated with maintenance contracts from license customers. Also included in SaaS and maintenance revenues are other revenues, including revenues related to maintenance and support, managed support services (MSS), revenue management as a service (RMaaS), training and customer-reimbursed expenses. In previous years, we took several steps to transform our business model in order to increase the percentage of our business from SaaS and maintenance revenues. We believe we have accelerate the shift in our business model to recurring revenues, as we believe the SaaS model has gained wider acceptance as a delivery model, particularly in the technology sector and with mid-market life science companies. Accordingly, we expect that SaaS and maintenance revenues for the fiscal year 2017 will be higher both in absolute dollars and as a percentage of total revenues than fiscal year 2016 as we continue to acquire new SaaS customers and expand our SaaS offerings within our existing customers.

Deferred revenue on our consolidated balance sheet does not represent the total contract value of annual or multi-year, noncancelable subscription agreements. Backlog represents expected future billings which are contractually committed under our existing subscription agreements that have not been invoiced. Backlog was approximately $10.6 million and $10.1 million as of September 30, 2016 and 2015, respectively. Out of backlog as of September 30, 2016 and 2015, approximately $6.9 million and $3.7 million were long-term backlog and $6.6 million and $3.5 million was short-term backlog, respectively. We expect that the amount of backlog may change from year-to-year for several reasons, including billing cycles, timing of customer renewals, remaining duration of arrangement, and the timing of when unbilled deferred revenue is to be recognized as revenues. For multi-year subscription agreements, the associated backlog is typically high at the beginning of the contract period, zero immediately prior to expiration and increases if the agreement is renewed. Low backlog attributable to a particular subscription agreement is typically associated with an impending renewal and is not an indicator of the likelihood of renewal or future revenue of that customer. Accordingly, we expect that the amount of backlog may change from year to year depending in part upon the number of subscription agreements in particular stages in their renewal cycle. Such fluctuations are not reliable indicators of future revenues.

Cost of Revenues

Our total cost of revenues is comprised of the following:

License and Implementation

Cost of license and implementation revenues includes costs related to the implementation of our on premise solutions. Cost of license and implementation revenues primarily consists of personnel-related costs including salary, bonus, stock-based compensation, third-party contractor costs and royalty fees paid to third parties for rights to their intellectual property. Cost of license and implementation revenues may vary from period to period depending on a number of factors, including the amount of implementation services required to deploy our solutions and the level of involvement of third-party contractors providing implementation services.

SaaS and Maintenance

Cost of SaaS and maintenance revenues includes those costs related to the implementation of our cloud-based solutions, maintenance and support and managed support services for our on-premise solutions, revenue management as a service, channel data management, training and customer-reimbursed expenses. Cost of SaaS and maintenance revenues primarily consists of personnel-related costs including salary, bonus, stock-based compensation, royalty, facility expense, and depreciation related to server equipment and capitalized software, reimbursable expenses, third-party contractors and data center-related expenses. We believe that cost of SaaS and maintenance revenues will continue to increase in absolute dollars as we continue to sell more products.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing and general and administrative expenses.

Research and Development

Our research and development expenses consist primarily of personnel-related costs including salary, bonus, stock-based compensation, as well as third-party contractors and travel-related expenses. Our software development costs for new software solutions and enhancements to existing software solutions are generally expensed as incurred. However, we capitalize development costs incurred in connection with the development of certain additional service offerings that will only be offered through the cloud. As of September 30, 2016, the net book value of capitalized software development costs was $2.7 million, of which $1.9 million is related to the software that was made available for use by our customers in fiscal year 2016. The remaining amount of $0.8 million relates to the development of a product that is not completed as of September 30, 2016. We expect our research and development expenses to increase in absolute dollars as we continue to develop new applications and enhance our existing software solutions.

Sales and Marketing

Our sales and marketing expenses consist primarily of personnel-related costs including salary, bonus, commissions, stock-based compensation, third-party contractors, travel-related expenses and marketing programs. For fiscal year 2016, we recognize sales commission expense upon the booking of a contract, while we recognize revenue over the period services were provided. We expect our sales and marketing expenses to increase in absolute dollars as we continue to invest in our sales and marketing organization, increase the number of our sales and marketing employees and increase market program spend to grow our business.

General and Administrative

Our general and administrative expenses consist primarily of personnel-related costs including salary, bonus, stock-based compensation, audit and legal fees as well as third-party contractors, facilities and travel-related expenses.

LeapFrogRx Compensation Charges

In January 2012, we acquired certain assets and liabilities of LeapFrogRx for initial cash consideration of $3.0 million as well as potential additional payments to former LeapFrogRx stockholders totaling up to $8.3 million, which were incurred through January 2015. These additional payments were, among other things, subject to future continued employment and are therefore considered compensatory in nature and are being recognized as compensation expense (LeapFrogRx compensation charges) over the term of each component. We paid the final LeapFrogRx compensation charges of $1.0 million in January 2015.

Results of Operations

The following tables set forth our consolidated results of operations for the periods presented and as a percentage of our total revenues for those periods. The period-to-period comparison of financial results is not necessarily indicative of financial results to be achieved in future periods.

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Consolidated Statements of Operations Data:			
Revenues:			
License and implementation	$20,579	$36,172	$35,333
SaaS and maintenance	86,392	57,596	46,423
Total revenues	106,971	93,768	81,756
Cost of Revenues:			
License and implementation	12,976	15,555	16,652
SaaS and maintenance	40,717	26,014	21,092
Total cost of revenues	53,693	41,569	37,744
Gross profit	53,278	52,199	44,012
Operating Expenses:			
Research and development	23,706	17,906	18,710
Sales and marketing	32,261	30,300	25,998
General and administrative	30,051	23,132	19,671
Restructuring	—	—	26
Total operating expenses	86,018	71,338	64,405
Loss from operations	(32,740)	(19,139)	(20,393)
Interest (expense) income, net	(50)	(6)	(12)
Other (income) expenses, net	86	(22)	116
Loss before income taxes	(32,776)	(19,111)	(20,497)
Provision for income taxes	335	528	384
Net loss	$(33,111)	$(19,639)	$(20,881)

Comparison of the Fiscal Years Ended September 30, 2016 and 2015

Revenues

	Fiscal Years Ended September 30,					
	2016		2015		Change	
	Amount	% of Total Revenues	Amount	% of Total Revenues	($)	(%)
	(in thousands, except percentages)					
Revenues:						

License and implementation	$20,579	19 %	$36,172	39 %	$(15,593)	(43)%
SaaS and maintenance	86,392	81	57,596	61	28,796	50
Total revenues	$106,971	100 %	$93,768	100 %	$13,203	14 %

License and Implementation

License and implementation revenues decreased $15.6 million, or 43%, to $20.6 million for the fiscal year ended September 30, 2016 from $36.2 million for the fiscal year ended September 30, 2015. As a percentage to total revenues, license and implementation revenue decreased from 39% to 19%. The decrease in these revenues as a percentage of revenues and in absolute dollars was primarily due to fewer sales of software licenses for our on-premise solutions and related implementation services in fiscal year 2016, as our business model continued to focus on sales of our cloud-based solutions in fiscal year 2016.

SaaS and Maintenance

SaaS and maintenance revenues increased $28.8, or 50%, to $86.4 million for the fiscal year ended September 30, 2016 from $57.6 million for the fiscal year ended September 30, 2015. The increase in SaaS and maintenance revenues was primarily driven by an increase in the number of subscription contracts and included a $18.9 million increase in our SaaS and Revvy subscription, a $6.9 million increase in revenue from channel data management, a $1.2 million increase in revenues from RMaaS, and a $1.8 million increase in our maintenance and support, managed support services revenues, training and customer reimbursable expense. . We intend to focus on growing our recurring revenue from SaaS and maintenance in future periods and also as a percentage of total revenues.

Cost of Revenues

	Fiscal Years Ended September 30,					
	2016		2015		Change	
	Amount	% of Revenues	Amount	% of Revenues	($)	(%)
	(in thousands, except percentages)					
Cost of revenues						
License and implementation	$12,976	63 %	$15,555	43 %	$(2,579)	(17)%
SaaS and maintenance	40,717	47	26,014	45	14,703	57
Total cost of revenues	$53,693	50 %	$41,569	44 %	$12,124	29 %
Gross profit						
License and implementation	$7,603	37 %	$20,617	57 %	$(13,014)	(63)%
SaaS and maintenance	45,675	53	31,582	55	14,093	45
Total gross profit	$53,278	50 %	$52,199	56 %	$1,079	2 %

License and Implementation

Cost of license and implementation revenues decreased $2.6 million, or 17%, to $13.0 million during the fiscal year ended September 30, 2016 from $15.6 million for the fiscal year ended September 30, 2015. As a percentage of revenue, cost of license and implementation revenues increased to 63% in fiscal year 2016 from 43% in fiscal year 2015. The increase in cost of revenue as a percentage of revenue was primarily due to the sale of fewer software licenses for our on premise solutions. The cost of revenues recognized in fiscal year 2016 was primarily from the sale of standalone professional services which has a lower margin than sale of license.

SaaS and Maintenance

Cost of SaaS and maintenance revenues increased $14.7 million, or 57%, to $40.7 million during the fiscal year ended September 30, 2016 from $26.0 million for the fiscal year ended September 30, 2015. As a percentage of SaaS and maintenance revenues, cost of SaaS and maintenance revenues increased slightly from 45% to 47% in fiscal year 2016. The increase in SaaS and maintenance cost during the period was primarily due to an increase in our SaaS and maintenance revenues. This increase in these revenues resulted in an increase in personnel and other related costs.

	Fiscal Years Ended September 30,			
	2016	2015	Change	
	Amount	Amount	($)	(%)
	(in thousands, except percentages)			
Operating expenses:				
Research and development	$23,706	$17,906	$5,800	32 %
Sales and marketing	32,261	30,300	1,961	6
General and administrative	30,051	23,132	6,919	30
Total operating expenses	$86,018	$71,338	$14,680	21 %

Research and Development

Research and development expenses increased by $5.8 million, or 32%, to $23.7 million during the fiscal year ended September 30, 2016 from $17.9 million for the fiscal year ended September 30, 2015. The increase was primarily due to a $2.1 million increase in employee related costs due to an increase in headcount, a $1.0 million increase in consulting costs paid to third party consultants, a $1.0 million increase in software and equipment related costs, a $0.3 million increase in travel costs and a $1.4 million increase in the costs that were capitalized in connection with the development of internally-developed software which was previously capitalized in fiscal year 2015.

Sales and Marketing

Sales and marketing expenses increased by $2.0 million, or 6%, to $32.3 million during the fiscal year ended September 30, 2016 from $30.3 million for the fiscal year ended September 30, 2015. This increase was primarily due to a $1.3 million increase in employee related costs resulting from increased headcount, a $0.2 million increase in marketing related activities, a $0.4 million increase in travel and other costs, and a $0.4 million increase in amortization expense, partially offset by a $0.3 million decrease in consulting costs.

General and Administrative

General and administrative expenses increased by $7.0 million, or 30%, to $30.2 million during the fiscal year ended September 30, 2016 from $23.1 million for the fiscal year ended September 30, 2015. The increase was due primarily to higher employee related costs of $3.8 million resulting from increased headcount, third party contractor costs of $2.3 million, equipment related costs of $0.2 million and facility costs and other costs of $0.5 million mainly due to higher rent for office lease and travel costs of $0.2 million. These increases are in part driven by our Channel Data Management business, which we acquired on October 30, 2015, and the additions to our executive team.

Interest and Other Expense, Net

	Fiscal Years Ended September 30,			
	2016	2015	Change	
	Amount	Amount	($)	(%)
	(in thousands, except percentages)			
Interest income	$(50)	$ (6)	$(44)	733 %
Other (income) expense, net	$86	$ (22)	$108	(491)%

Interest income, primarily related to interest income earned from our invested cash, net of bank service charges.

Other (income) expenses, net primarily related to currency fluctuation recorded for our foreign operations.

Provision for Income Taxes

Fiscal Years
Ended

	September 30,			
	2016	2015	Change	
	Amount	Amount	($)	(%)
	(in thousands, except percentages)			
Provision for income taxes	$335	$ 528	$(193)	(37)%

Provision for income taxes is primarily related to the state minimum tax and foreign tax on our profitable foreign operations. The change in income tax provision is primarily due to the change in income related to our foreign operations.

Comparison of the Fiscal Years Ended September 30, 2015 and 2014

Revenues

	Fiscal Years Ended September 30,					
	2015		2014		Change	
	Amount	% of Total Revenues	Amount	% of Total Revenues	($)	(%)
	(in thousands, except percentages)					
Revenues:						
License and implementation	$36,172	39 %	$35,333	43 %	$839	2 %
SaaS and maintenance	57,596	61	46,423	57	11,173	24
Total revenues	$93,768	100 %	$81,756	100 %	$12,012	15 %

License and Implementation

License and implementation revenues increased $0.8 million, or 2%, to $36.2 million for the fiscal year ended September 30, 2015 from $35.3 million for the fiscal year ended September 30, 2014. As a percentage to total revenues, license and implementation revenue decreased from 43% to 39% primarily due to increase in SaaS and maintenance revenue, as we continue to focus on our recurring revenue activities. The increase is a result of a greater amount of revenue generated from projects completed during fiscal year 2015 as compared to fiscal year 2014.

SaaS and Maintenance

SaaS and maintenance revenues increased $11.2 million, or 24%, to $57.6 million for the fiscal year ended September 30, 2015 from $46.4 million for the fiscal year ended September 30, 2014. The increase in SaaS and maintenance revenues was primarily driven by an increase of $8.2 million in subscription revenues, $0.9 million in revenues from our new offering RMaaS, $1.0 million in maintenance revenues and $1.3 million in managed support services revenues primarily due to acquisition of new customers as we improved our sales execution in fiscal year 2015. These increases were primarily offset by a decrease of $0.2 million in training revenues.

Cost of Revenues

	Fiscal Years Ended September 30,					
	2015		2014		Change	
	Amount	% of Revenues	Amount	% of Revenues	($)	(%)
	(in thousands, except percentages)					
Cost of revenues						
License and implementation	$15,555	43 %	$16,652	47 %	$(1,097)	(7)%
SaaS and maintenance	26,014	45	21,092	45	4,922	23
Total cost of revenues	$41,569	44 %	$37,744	46 %	$3,825	10 %
Gross profit						
License and implementation	$20,617	57 %	$18,681	53 %	$1,936	10 %

SaaS and maintenance	31,582	55	25,331	55	6,251	25
Total gross profit	$52,199	56 %	$44,012	54 %	$8,187	19 %

License and Implementation

Cost of license and implementation revenues decreased $1.1 million, or 7%, to $15.6 million during the fiscal year ended September 30, 2015 from $16.7 million for the fiscal year ended September 30, 2014. As a percentage of revenue, cost of license and implementation revenues decreased to 43% in fiscal year 2015 from 47% in fiscal year 2014. The decrease was primarily the result of a $2.7 million reduction in personnel costs primarily associated with the change in our revenue mix. During fiscal year 2015 our workforce incurred more hours on delivery of SaaS and maintenance revenues. This was partially offset by a $0.9 million increase in royalty costs and a $0.7 million increase in third-party contractors' costs.

SaaS and Maintenance

Cost of SaaS and maintenance revenues increased $4.9 million, or 23%, to $26.0 million during the fiscal year ended September 30, 2015 from $21.1 million for the fiscal year ended September 30, 2014. However, as a percentage of revenues, cost of SaaS and maintenance revenues was unchanged during the fiscal year 2015 as compared to fiscal year 2014. The increase was primarily due to $3.9 million increase in personnel costs due to increase in headcount and change in our revenue mix as our workforce incurred more hours on delivery of SaaS revenues as compared to license and implementation revenues, a $1.2 million increase in third-party contractor costs, a $0.6 million increase in equipment related costs and a $0.5 of million increase in amortization costs recorded on internally developed software capitalized in the fiscal year 2015, partially offset by a $0.5 million decrease in customer reimbursable expenses and a $0.8 million decrease in training and certain other costs.

Operating Expenses

	Fiscal Years Ended September 30,			
	2015	2014	Change	
	Amount	Amount	($)	(%)
	(in thousands, except percentages)			
Operating expenses:				
Research and development	$17,906	$18,710	$(804)	(4)%
Sales and marketing	30,300	25,998	4,302	17
General and administrative	23,132	19,671	3,461	18
Restructuring	—	26	(26)	(100)
Total operating expenses	$71,338	$64,405	$6,933	11 %

Research and Development

Research and development expenses decreased by $0.8 million, or 4%, to $17.9 million during the fiscal year ended September 30, 2015 from $18.7 million for the fiscal year ended September 30, 2014 due to an increase in the amount capitalized in connection with internally-developed software in fiscal year 2015 specifically related to our Revvy product offerings, partially offset by a $0.5 million increase in personnel costs, a $0.5 million increase in third-party contactors costs and a $0.2 million increase in travel costs.

Sales and Marketing

Sales and marketing expenses increased by $4.3 million, or 17%, to $30.3 million during the fiscal year ended September 30, 2015 from $26.0 million for the fiscal year ended September 30, 2014. The increase was primarily the result of an increase of $1.9 million in personnel costs as a result of our effort to expand our sales and marketing team, a $0.6 million increase in third-party contractors, a $0.7 million increase in travel and entertainment costs due to increase in sales activity, a $0.7 million increase in marketing program expense and a $0.4 million increase in facility and other expense.

General and Administrative

General and administrative expenses increased by $3.5 million, or 18%, to $23.1 million during the fiscal year ended September 30, 2015 from $19.7 million for the fiscal year ended September 30, 2014. The increase was primarily due to a $2.0 million increase in professional fees primarily as a result of higher legal expenses related to stockholders lawsuit, a $0.4 million increase in employee-related, a $0.4 million increase in facility costs mainly due to higher rent as a result of our new head office lease and a $0.7 million increase in other office expenses.

Interest and Other Expense, Net

	Fiscal Years Ended September 30,			
	2015	2014	Change	
	Amount	Amount	($)	(%)
	(in thousands, except percentages)			
Interest (income) expense, net	$(6)	$(12)	$6	(50)%
Other expense, net	$(22)	$116	$(138)	(119)%

Interest income primarily related to interest income earned from our invested cash, net of bank service charges.

Other (income) expenses, net decreased primarily due to currency fluctuation gain recorded for fiscal year ended September 30, 2015 as against a loss during fiscal year ended September 30, 2014.

Provision for Income Taxes

	Fiscal Years Ended September 30,			
	2015	2014	Change	
	Amount	Amount	($)	(%)
	(in thousands, except percentages)			
Provision for income taxes	$528	$ 384	$144	38 %

Provision for income taxes is primarily related to the state minimum tax and foreign tax on our profitable foreign operations. The change in income tax provision is primarily due to the change in income related to our foreign operations.

Income tax expense increased by $0.1 million, or 38%, in fiscal year ended September 30, 2015 primarily due to the changes in the mix of earnings in various geographic jurisdictions.

Quarterly Results of Operations (Unaudited)

The following table sets forth our unaudited quarterly statements of operations data for the last eight fiscal quarters. The information for each of these quarters has been prepared on the same basis as the audited annual financial statements included elsewhere in this annual report and, in the opinion of management, includes all adjustments, which includes only normal recurring adjustments, necessary for the fair presentation of the results of operations for these periods. This data should be read in conjunction with our audited consolidated financial statements and related notes included elsewhere in this annual report. These quarterly operating results are not necessarily indicative of our operating results for any future period.

	Three Months Ended							
	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016	Dec 31, 2015	Sep 30, 2015	Jun 30, 2015	Mar 31, 2015	Dec 31, 2014
	(in thousands, except per share amounts)							
Revenues:								
License and implementation	$6,075	$5,119	$4,823	$4,562	$8,391	$8,359	$9,741	$9,681
SaaS and maintenance	22,433	22,798	21,236	19,925	16,990	15,251	12,935	12,420
Total revenues	28,508	27,917	26,059	24,487	25,381	23,610	22,676	22,101
Cost of Revenues:								
License and implementation	2,437	3,521	3,601	3,417	3,749	4,020	3,771	4,015
SaaS and maintenance	11,137	10,330	10,238	9,012	7,786	6,928	5,789	5,511
Total cost of revenues	13,574	13,851	13,839	12,429	11,535	10,948	9,560	9,526
Gross profit	14,934	14,066	12,220	12,058	13,846	12,662	13,116	12,575

Operating Expenses:								
Research and development	6,057	6,190	6,175	5,284	4,728	4,438	4,286	4,454
Sales and marketing	8,265	7,982	8,307	7,707	8,046	7,657	7,857	6,740
General and administrative	8,278	8,409	6,644	6,720	5,987	6,267	5,290	5,588
Total operating expenses	22,600	22,581	21,126	19,711	18,761	18,362	17,433	16,782
Loss from operations	(7,666)	(8,515)	(8,906)	(7,653)	(4,915)	(5,700)	(4,317)	(4,207)
Interest income	(22)	(14)	(13)	(1)	—	—	(2)	(4)
Other (income) expenses, net	63	(22)	(12)	57	(81)	6	92	(39)
Loss before income taxes	(7,707)	(8,479)	(8,881)	(7,709)	(4,834)	(5,706)	(4,407)	(4,164)
Provision for income taxes	49	167	29	90	121	80	192	135
Net loss	(7,756)	(8,646)	(8,910)	(7,799)	(4,955)	(5,786)	(4,599)	(4,299)

Liquidity and Capital Resources

Our principal sources of liquidity are our cash and cash equivalents. As of September 30, 2016, we had cash and cash equivalents of $66.1 million.

We expect that our operating losses and negative cash flows from operations will continue through at least the foreseeable future. Based on our future expectations and historical usage, we believe our current cash and cash equivalents are sufficient to meet our cash needs for at least the next 12 months. Our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, and the timing and extent of spending to support research and development efforts and expansion of our business and capital expenditures for the purchase of computer hardware and software. To the extent that existing cash and cash equivalents and cash from operations are insufficient to fund our future activities, we may elect to raise additional capital through the sale of additional equity or debt securities, obtain a credit facility or sell certain assets. If additional funds are raised through the issuance of debt securities, these securities could have rights, preferences and privileges senior to holders of common stock, and terms of any debt could impose restrictions on our operations. The sale of additional equity or convertible debt securities could result in additional dilution to our stockholders and additional financing may not be available in amounts or on terms acceptable to us. We may also seek to invest in or acquire complementary businesses or technologies, any of which could also require us to seek additional equity or debt financing. Additional funds may not be available on terms favorable to us or at all.

Cash Flows

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Cash flows used in operating activities	$(12,324)	$(8,772)	$(6,050)
Cash flows used in investing activities	(15,789)	(4,606)	(2,216)
Cash flows provided by financing activities	3,279	3,450	5,914

Cash Flows from Operating Activities

Net cash used in operating activities was $12.3 million during fiscal year ended September 30, 2016, and was primarily the result of our net loss of $33.1 million and $1.6 million change in operating assets and liabilities, partially offset by $19.1 million of non-cash adjustments comprised of $13.1 million in stock-based compensation, $6.0 million in depreciation and amortization and $0.2 million in other non-cash charges. The net change in operating assets and liabilities consisted of a $2.9 million increase in accounts receivable primarily reflective of invoicing in excess of collection during the year, a $1.0 million increase in deferred cost of implementation services, a $5.9 million increase in deferred revenue primarily due to timing of amount invoiced and revenue recognized, a $1.5 million increase in prepaid expenses and other assets, a $1.5 million increase in accounts payable, a $0.7 million decrease in accrued employee compensation primarily due to payment of bonuses and other employee benefits and a $0.3 million increase in other accrued and long term liabilities.

Net cash used in operating activities was $8.8 million during fiscal year ended September 30, 2015, and was primarily the result of our net loss of $19.6 million and a $3.8 million change in operating assets and liabilities, partially offset by a $14.7 million of non-cash adjustments comprised of $10.4 million in stock-based compensation and $4.1 million in depreciation and amortization. The net change in operating assets and liabilities consisted of a $2.6 million decrease in deferred revenue associated with arrangements for which revenues were deferred at the outset of the arrangements, a $0.9 million increase in accounts receivables, primarily reflective of higher invoicing in fourth quarter of 2015, a $0.5 million increase in deferred cost of implementation services and an increase of $1.2 million in prepaid expenses and other assets. These were partially offset by increase of $1.0 million in other accrued and long term liabilities and $0.5 million increase in accounts payable which primarily due to the timing of accruals and payments made.

Net cash used in operating activities was $6.1 million during fiscal year ended September 30, 2014, and was primarily the result of our net loss of $20.9 million, partially offset by $1.1 million increase in net cash provided by operating assets and liabilities and $13.7 million of non-cash adjustments comprised of $10.0 million in stock-based compensation and $3.7 million in depreciation and amortization. The net cash increase provided by operating assets and liabilities consisted of a $3.9 million increase in deferred revenue associated with arrangements for which revenues were deferred at the outset of the arrangements, a $1.0 million decrease in accounts receivables, primarily reflective of collections in excess of billings, a $0.2 million decrease in deferred cost of implementation services and a decrease of $0.4 million in prepaid expenses and other assets. These were partially offset by decrease of $4.6 million in accrued employee compensation primarily reflecting the purchases made under our Employee Stock Purchase Program (ESPP) and payment of bonuses, LeapFrogRx compensation charges and accrued restructuring charges.

Cash Flows from Investing Activities

Net cash used in investing activities for the fiscal year ended September 30, 2016 was primarily due to cash paid for the acquisition of a business of $12.6 million, $1.1 million associated with capitalization of software development costs and purchases of property and equipment of $2.1 million.

Net cash used in investing activities for the fiscal year ended September 30, 2015 was primarily due to purchases of property and equipment of $2.1 million and $2.5 million associated with capitalization of software development costs.

Net cash used in investing activities for the fiscal year ended September 30, 2014 was primarily due to purchases of property and equipment of $1.8 million and $0.4 million associated with capitalization of software development costs.

Cash Flows from Financing Activities

Net cash provided by financing activities for the fiscal year ended September 30, 2016 was from the exercises of stock options and purchases made under our employee stock purchase plan.

Net cash provided by financing activities for the fiscal year ended September 30, 2015 primarily consisted of $3.5 million from exercises of stock options and purchases made under ESPP.

Net cash provided by financing activities for the fiscal year ended September 30, 2014 primarily consisted of $6.2 million from exercises of stock options and purchases made under ESPP, partially offset by $0.3 million related to the repayment of capital lease obligations.

Contractual Obligations

The following summarizes our contractual obligations as of September 30, 2016:

	Contractual Payment Obligations Due by Period				
	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years
Operating lease obligations[1]	$5,200	$2,600	$1,700	$800	$100

[1] Operating lease obligations represent our obligations to make payments under the lease agreements for our facilities leases.

Off-Balance Sheet Arrangements

As of September 30, 2016, we did not have any relationships with unconsolidated entities or 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.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States. The preparation of the accompanying consolidated financial statements in conformity with U.S. GAAP requires our management to make certain estimates and assumptions that affect the amounts of assets and liabilities reported disclosures about contingent assets and liabilities and reported amounts of revenues and expenses during the reporting periods. Significant items subject to such estimates include revenue recognition, legal contingencies, income taxes, stock-based compensation, software development costs and valuation of goodwill and intangibles. These estimates and assumptions are based on our management's best estimates and judgment. Our management regularly evaluates these estimates and assumptions using historical experience and other factors; however, actual results could differ significantly from these estimates.

We believe that the assumptions and estimates associated with revenue recognition, share-based compensation and income taxes have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates. Accordingly, we believe these are the most critical to fully understand and evaluate our financial condition and results of operations.

Revenue recognition

We generate revenue from two sources: License and implementation and SaaS and maintenance.

License and implementation revenues include revenues from the sale of perpetual software licenses for our solutions and the related implementation services. SaaS and maintenance revenues primarily include subscription and the related implementation fees from customers accessing our cloud-based solutions and revenues associated with maintenance and support contracts from customers using on premise solutions. Also included in SaaS and maintenance revenues are other revenues, such as managed support services, training and customer-reimbursed expenses. We commence revenue recognition when all of the following conditions are satisfied:

- there is persuasive evidence of an arrangement exists,
- delivery has occurred or services have been rendered,
- the price is fixed or determinable and
- the collection of the fees is probable or reasonably estimable.

However, determining whether and when some of these criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of revenues we report.

License and implementation revenue is recognized based on the nature and scope of the implementation services, we have concluded that generally the implementation services are essential to our customers' use of the on premise solutions, and therefore, we recognize revenues from the sale of software licenses for our on premise solutions and the related implementation services on a percentage-of-completion basis over the expected implementation period which is estimated at a few months to three years. The percentage-of-completion computation is measured as the hours expended on the implementation during the reporting period as a percentage of the total estimated hours needed to complete the implementation.

For SaaS arrangements related to Revenue Enterprise Cloud and Revenue Intelligence Cloud , we had historically concluded that the SaaS deliverable did not have standalone value without the implementation services primarily because other vendors could not perform the services, and in some cases the complexity of the customer environment in which the SaaS deliverable was deployed. During fiscal year 2016, we concluded that a sufficient number of implementation projects had been completed with several third-party consulting companies participating in either a primary or sub-contractor role, such that the third-party vendors have the requisite know-how to complete, and, have completed the implementation services independently. Therefore, the Company concluded that the SaaS deliverable has standalone value to the customer without the implementation services. The total arrangement fee for a multiple-element arrangement is allocated based on the relative selling price method. The consideration allocated to subscription fees is recognized as revenue ratably over the contract period. The consideration allocated to implementation services is recognized as revenue as services are performed, in accordance with the provisions of Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2009-13, Revenue Recognition (Accounting Standards Codification (ASC) Topic 605)—Multiple-Deliverable Revenue Arrangements."

Prior to fiscal year 2016, for SaaS arrangements related to Revenue Enterprise Cloud and Revenue Intelligence Cloud we treated the entire arrangement consideration, including subscription fees and related implementation services fees, as a single unit of accounting and recognized the revenues ratably beginning the day the customer was provided access to the subscription service through the end of contractual period.

For the remaining SaaS arrangements subscription fees and implementation services continue to have standalone value and we allocate revenue to each element in the arrangement based on a selling price hierarchy. The selling price for a deliverable is based on its vendor-specific objective evidence (VSOE), if available, third-party evidence (TPE), if VSOE is not available, or best estimated selling price (BESP), if neither VSOE nor TPE is available. For SaaS arrangements, where we utilize BESP, we established the BESP for each element by considering specific factors such as existing pricing and discounting. The total arrangement fee for a multiple element arrangement is allocated based on the relative BESP of each element. The consideration allocated to subscription fees is recognized as revenue ratably over the contract period. The consideration allocated to services is recognized as revenue as services are performed.

For SaaS arrangements, where we utilize BESP, we established the BESP for each element by considering specific factors such as existing pricing and discounting. The total arrangement fee for a multiple element arrangement is allocated based on the relative BESP of each element. The consideration allocated to subscription fees is recognized as revenue ratably over the contract period. The consideration allocated to services is recognized as revenue as services are performed.

Revenue related to up-front fees are deferred and recognized ratably over the estimated period that the customer benefits from the related service.

Maintenance and support revenue include post-contract customer support and the right to unspecified software updates and enhancements on a when and if available basis. Managed support services revenue includes supporting, managing and administering our software solutions, and providing additional end user support. Maintenance and support revenue and managed support services revenue are recognized ratably over the period in which the services are provided. The revenue from training and customer-reimbursed expenses is recognized as we deliver services.

Stock-based compensation

We recognize compensation expense for stock option, restricted stock units and performance based restricted stock units. We use the Black-Scholes-Merton valuation model to estimate the fair value of stock option awards. However, we have not granted stock options since fiscal year 2013. The fair value of restricted stock units is determined based on the intrinsic value of the award on the grant date. Our performance share unit grants included market condition performance criteria so we used a Monte Carlo simulation model to determine their fair value on the grant date. The fair value of these grants with a market condition is recognized using the graded-vesting attribution method over the requisite service period. The Monte-Carlo simulation model takes into account the same input assumptions as the Black-Scholes model; however, it also further incorporates into the fair value determination the possibility that the performance criteria may not be satisfied. The weighted-average assumptions used to estimate the fair values of these awards were determined using the following assumptions:

	Fiscal Year Ended September 30, 2016
Risk-free interest rate	0.63 - 1.15%
Dividend yield	—
Volatility	32 - 45%

Changes in the estimates used to determine the fair value of share-based equity compensation instruments could result in changes to our compensation charges.

Income Taxes

We account for income taxes in accordance with the FASB ASC No. 740—Accounting for Income Taxes (ASC 740). We make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, tax benefits and deductions and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of recognition of revenue and expense for tax and financial statement purposes. Significant changes to these estimates may result in an increase or decrease to our tax provision in the subsequent period when such a change in estimate occurs.

We regularly assesses the likelihood that its deferred income tax assets will be realized from future taxable income based on the realization criteria set forth in ASC 740. To the extent that we believe any amounts are not more likely than not to be realized, we records a valuation allowance to reduce the deferred income tax assets. In assessing the need for a valuation allowance, we consider all available evidence, including past operating results, estimates of future taxable income and the feasibility of tax planning strategies. In the event we determine that all or part of the net deferred tax assets are not realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made. Similarly, if we subsequently realizes deferred income tax assets that were previously determined to be unrealizable, the respective valuation allowance would be reversed, resulting in an adjustment to earnings in the period such determination is made.

As of September 30, 2016, we had gross deferred income tax assets, related primarily to net operating loss (NOL) carry forward, deferred revenues, stock compensation, accruals and reserves that are not currently deductible, depreciation and amortization and research and development tax credits of $56.2 million, respectively, which have been fully offset by valuation allowance. Utilization of these net loss carry forwards is subject to the limitations of IRC Section 382. During the year ended September 30, 2013, we undertook a study of NOL carry forwards and determined that most of its NOL carry forwards are not subject to the limitations of IRC Section 382. However, in the future, some portion or all of these carry forwards may not be available to offset any future taxable income. The federal and California net operating losses will begin expiring in 2021 and 2016, respectively.

Recent Accounting Pronouncements

In August 2016, the Financial Accounting Standard Board ("FASB") issued ASU 2016-15, statement of cash flow (topic 230), amended the existing accounting standards for the statement of cash flows. The amendments provide guidance on how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The guidance becomes effective for the Company at the beginning of its first quarter of fiscal 2019. Early adoption is permitted, including adoption in an interim period. We are currently evaluating the impact this standard will have on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, guidance related to stock-based compensation, which includes the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash. The guidance becomes effective for the Company at the beginning of its first quarter of fiscal 2018 but permits adoption in an earlier period. We are currently evaluating the impact this standard will have on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, guidance on the recognition and measurement of leases. Under the new guidance, lessees are required to recognize a lease liability, which represents the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet for most leases. The guidance retains the current accounting for lessors and does not make significant changes to the recognition, measurement, and presentation of expenses and cash flows by a lessee. Enhanced disclosures will also be required to give financial statement users the ability to assess the amount, timing and uncertainty of cash flows arising from leases. The guidance will require modified retrospective application at the beginning of the Company's first quarter of fiscal 2020, with optional practical expedients, but permits adoption in an earlier period. We are currently evaluating the impact this guidance will have on its consolidated financial statements.

In September 2015, the FASB issued ASU 2015-16, Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments. The new standard eliminates the requirement for an acquirer to retrospectively adjust provisional amounts recorded in a business combination to reflect new information about the facts and circumstances that existed as of the acquisition date and that, if known, would have affected measurement or recognition of amounts initially recognized. As an alternative, the standard requires that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. It requires that the acquirer record, in the financial statements of the period in which adjustments to provisional amounts are determined, the effect on earnings of changes in depreciation, amortization or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. The new standard is effective prospectively for fiscal years beginning after December 15, 2015, including interim periods within those fiscal years, with early adoption permitted. The adoption of this standard is not expected to have a material impact on the consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, "Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern" that requires management to evaluate whether there are conditions and events that raise substantial doubt about the Company's ability to continue as a going concern within one year after the financial statements are issued on both an interim and annual basis. Management is required to provide certain footnote disclosures if it concludes that substantial doubt exists or when its plans alleviate substantial doubt about the Company's ability to continue as a going concern. ASU 2014-15 becomes effective for annual periods beginning after December 15, 2016 and for interim reporting periods thereafter. The Company does not expect the adoption of this

ASU to have a material impact on the Company’s disclosures in the footnotes to its consolidated financial statements.

In May 2014, the Financial Accounting Standard Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers, which amends the existing accounting standards for revenue recognition. ASU 2014-09 is based on principles that govern the recognition of revenue at an amount to which an entity expects to be entitled when products and services are transferred to customers. ASU 2014-09 was originally to be effective for the Company on October 1, 2017. In July 2015, the FASB affirmed a one-year deferral of the effective date of the new revenue standard. The standard will be effective for the Company’s fiscal year beginning October 1, 2018, at which time we may adopt the new standard under either the full retrospective method or the modified retrospective method. Early adoption is permitted. The Company is currently evaluating the impact of the adoption of this standard on our consolidated financial statements and has not concluded on an adoption method.

Non-GAAP Financial Measure

Adjusted EBITDA

Adjusted EBITDA is a financial measure that is not calculated in accordance with generally accepted accounting principles in the United States (U.S. GAAP). We define adjusted EBITDA as net loss before items discussed below, including: LeapFrogRx compensation charges, stock-based compensation expense, depreciation and amortization, acquisition and integration related expense, interest income, other (income) expenses, net, legal expenses and provision for income taxes. We believe adjusted EBITDA provides investors with consistency and comparability with our past financial performance and facilitates period-to-period comparisons of our operating results and our competitors' operating results. We also use this measure internally to establish budgets and operational goals to manage our business and evaluate our performance.

We understand that, although adjusted EBITDA is frequently used by investors and securities analysts in their evaluations of companies, adjusted EBITDA has limitations as an analytical tool, and it should not be considered in isolation or as a substitute for analysis of our results of operations as reported under U.S. GAAP. These limitations include:

- adjusted EBITDA does not include the effect of the cost associated with 2012 acquisition of LeapFrogRx, which are a cash expense
- adjusted EBITDA does not include Channelinsight acquisition and integration related expense;
- adjusted EBITDA does not reflect stock-based compensation expense;
- depreciation and amortization are non-cash charges, and the assets being depreciated or amortized will often have to be replaced in the future; Adjusted EBITDA does not reflect any cash requirements for these replacements;
- adjusted EBITDA does not reflect restructuring expense;
- adjusted EBITDA does not reflect legal expense related to class action lawsuits;
- adjusted EBITDA does not reflect cash requirements for income taxes and the cash impact of interest income and other income or expense; and
- other companies in our industry may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Reconciliation of Adjusted EBITDA:			
Net loss	$(33,111)	(19,639)	$(20,881)
Adjustments:			
Stock-based compensation expense	13,068	10,355	9,949
Depreciation and amortization	5,929	4,076	3,716
LeapFrogRx compensation charges	—	91	461
Acquisition and integration related expense	867	—	—
Restructuring	—	—	26
Interest income	(50)	(6)	(12)
Other (income) expenses, net	86	(22)	116
Legal expenses	305	1,285	—
Provision for income taxes	335	528	384
Adjusted EBITDA	$(12,571)	$(3,332)	$(6,241)

Adjusted EBITDA was $(12.6) million, $(3.3) million and $(6.2) million for the fiscal years ended September 30, 2016, 2015 and 2014, respectively. The increase in our adjusted EBITDA loss for the fiscal year ended September 30, 2016 as compared to fiscal year ended September 30, 2015, primarily due to an increase in personnel and other costs as we continued to hire more employees in order to grow our business. These increases in expenses were partially offset by an increase in total revenues for our SaaS and maintenance business as we acquire new customers.

Item 7A.Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. We do not hold or issue financial instruments for trading purposes.

Interest Rate Sensitivity

Our exposure to market risk for changes in interest rates relates primarily to our cash and cash equivalents, which bear interest at a fixed interest rate. Our primary exposure to market risk is interest income and expense sensitivity, which is affected by changes in the general level of the interest rates in the United States. However, because of the short-term nature of our interest-bearing securities, a 10% change in market interest rates would not be expected to have a material impact on our consolidated financial condition or results of operations.

Foreign Currency Exchange Risk

Our customers typically pay us in U.S. dollars, however in foreign jurisdictions; our expenses are typically denominated in local currency. Our expenses and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Indian Rupee. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. However, we believe that a 10% change in foreign exchange rates would not have a material impact on our results of operations. To date, we have not entered into foreign currency hedging contracts, but may consider entering into such contracts in the future. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Item 8. Financial Statements and Supplementary Data
MODEL N, INC.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Model N, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows present fairly, in all material respects, the financial position of Model N, Inc. and its subsidiaries as of September 30, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these financial statements 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 financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California
November 18, 2016

MODEL N, INC.

Consolidated Balance Sheets

(in thousands, except per share data)

	As of September 30, 2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$66,149	$91,019
Accounts receivable, net of allowance for doubtful accounts of $0 at September 30, 2016 and 2015	19,925	16,106
Deferred cost of implementation services, current portion	1,630	498
Prepaid expenses	4,845	3,229
Other current assets	283	109
Total current assets	92,832	110,961
Property and equipment, net	6,141	7,553
Goodwill	6,939	1,509
Intangible assets, net	5,684	317
Other assets	1,371	1,630
Total assets	$112,967	$121,970
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$3,334	$1,597
Accrued employee compensation	8,349	9,047
Accrued liabilities	3,707	3,464
Deferred revenue, current portion	28,854	22,039
Total current liabilities	44,244	36,147
Deferred revenue, net of current portion	1,924	1,942
Other long-term liabilities	597	819
Total liabilities	46,765	38,908
Commitments and contingencies (Note 6)		
Convertible preferred stock:		
Convertible preferred stock, $0.0005 par value; no shares authorized, issued and outstanding at September 30, 2016 and 2015, respectively	—	—
Stockholders' equity:		
Common Stock, $0.00015 par value; 200,000 shares authorized; 27,891 and 26,666 shares issued and outstanding at September 30, 2016 and September 30, 2015, respectively	4	4
Preferred Stock, $0.00015 par value; 5,000 shares authorized; no shares issued and outstanding	—	—
Additional paid-in capital	202,506	186,159
Accumulated other comprehensive loss	(562)	(466)

Accumulated deficit	(135,746)	(102,635)
Total stockholders' equity	66,202	83,062
Total liabilities and stockholders' equity	$112,967	$121,970

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

MODEL N, INC.

Consolidated Statements of Operations

(in thousands, except per share data)

	Fiscal Years Ended September 30, 2016	2015	2014
Revenues:			
License and implementation	$20,579	$36,172	$35,333
SaaS and maintenance	86,392	57,596	46,423
Total revenues	106,971	93,768	81,756
Cost of revenues:			
License and implementation	12,976	15,555	16,652
SaaS and maintenance	40,717	26,014	21,092
Total cost of revenues	53,693	41,569	37,744
Gross profit	53,278	52,199	44,012
Operating expenses:			
Research and development	23,706	17,906	18,710
Sales and marketing	32,261	30,300	25,998
General and administrative	30,051	23,132	19,671
Restructuring	—	—	26
Total operating expenses	86,018	71,338	64,405
Loss from operations	(32,740)	(19,139)	(20,393)
Interest income	(50)	(6)	(12)
Other (income) expenses, net	86	(22)	116
Loss before income taxes	(32,776)	(19,111)	(20,497)
Provision for income taxes	335	528	384
Net loss	$(33,111)	$(19,639)	$(20,881)
Net loss per share attributable to common stockholders:			
Basic and diluted	$(1.21)	$(0.76)	$(0.86)
Weighted average number of shares used in computing net loss per share attributable to common stockholders:			
Basic and diluted	27,379	26,015	24,399

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

MODEL N, INC.

Consolidated Statements of Comprehensive Loss

(in thousands)

	Fiscal Years Ended September 30,		
	2016	2015	2014
Net loss	$(33,111)	$(19,639)	$(20,881)
Other comprehensive income (loss), net:			
Change in foreign currency translation adjustment	(96)	(177)	13
Total comprehensive loss	$(33,207)	$(19,816)	$(20,868)

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

MODEL N, INC.

Consolidated Statements of Stockholders' Equity

(in thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
Balance at September 30, 2013	22,999	$ 3	$ 156,032	$ (302)	$ (62,115)	$ 93,618
Issuance of common stock upon exercise of stock options	1,689	1	3,034	—	—	3,035
Issuance of common stock upon release of restricted stock units	58	—	—	—	—	—
Issuance of common stock under stock purchase plans	339	—	3,203	—	—	3,203
Stock-based compensation	—	—	9,976	—	—	9,976
Other comprehensive income	—	—	—	13	—	13
Net loss	—	—	—	—	(20,881)	(20,881)
Balance at September 30, 2014	25,085	4	172,245	(289)	(82,996)	88,964
Issuance of common stock upon exercise of stock options	354	—	1,312	—	—	1,312
Issuance of common stock upon release of restricted stock units	963	—	—	—	—	—
Issuance of common stock under stock purchase plans	264	—	2,138	—	—	2,138
Stock-based compensation	—	—	10,464	—	—	10,464
Other comprehensive loss	—	—	—	(177)	—	(177)
Net loss	—	—	—	—	(19,639)	(19,639)
Balance at September 30, 2015	26,666	4	186,159	(466)	(102,635)	83,062
Issuance of common stock upon exercise of stock options	233	—	923	—	—	923
Issuance of common stock upon release of restricted stock units	719	—	—	—	—	—
Issuance of common stock under stock purchase plans	273	—	2,356	—	—	2,356
Stock-based compensation	—	—	13,068	—	—	13,068
Other comprehensive loss	—	—	—	(96)	—	(96)
Net loss	—	—	—	—	(33,111)	(33,111)
Balance at September 30, 2016	27,891	$ 4	$ 202,506	$ (562)	$ (135,746)	$ 66,202

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

MODEL N, INC.

Consolidated Statements of Cash Flows

(in thousands)

	Fiscal Years Ended September 30, 2016	2015	2014
Cash flows from operating activities:			
Net loss	$(33,111)	$(19,639)	$(20,881)
Adjustments to reconcile net loss to net cash used in operating activities			
Depreciation and amortization	5,929	4,076	3,716
Stock-based compensation	13,068	10,355	9,949
Other non-cash charges	78	227	83
Changes in assets and liabilities, net of acquisition:			
Accounts receivable	(2,850)	(925)	983
Prepaid expenses and other assets	(1,458)	(1,218)	407
Deferred cost of implementation services	(996)	(518)	242
Accounts payable	1,494	457	685
Accrued employee compensation	(677)	(16)	(4,624)
Other accrued and long-term liabilities	253	976	(500)
Deferred revenue	5,946	(2,547)	3,890
Net cash used in operating activities	(12,324)	(8,772)	(6,050)
Cash flows from investing activities:			
Purchases of property and equipment	(2,102)	(2,075)	(1,835)
Acquisition of business	(12,615)	—	—
Capitalization of software development costs	(1,072)	(2,531)	(381)
Net cash used in investing activities	(15,789)	(4,606)	(2,216)
Cash flows from financing activities:			
Proceeds from exercise of stock options and issuance of employee stock purchase plan	3,279	3,450	6,238
Payments for deferred offering costs	—	—	(6)
Principal payments on capital lease obligations	—	—	(318)
Net cash provided by financing activities	3,279	3,450	5,914
Effect of exchange rate changes on cash and cash equivalents	(36)	(59)	8
Net decrease in cash and cash equivalents	(24,870)	(9,987)	(2,344)
Cash and cash equivalents			
Beginning of period	91,019	101,006	103,350
End of period	$66,149	$91,019	$101,006
Supplemental Disclosure of Cash Flow Data:			
Cash paid for income taxes	$233	$364	$246
Cash paid for interest	—	—	11
Noncash Investing and Financing Activities:			
Capitalized stock options in software development costs	$—	$109	$27

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

MODEL N, INC.

Notes to Consolidated Financial Statements

1. The Company

Model N, Inc. (Company) was incorporated in Delaware on December 14, 1999. The Company is a provider of revenue management solutions for the life science and technology industries. The Company's solutions enable its customers to maximize revenues and reduce revenue compliance risk by transforming their revenue life cycle from a series of tactical, disjointed operations into a strategic end-to-end process, which enables them to manage the strategy and execution of pricing, contracting, incentives and rebates. The Company's corporate headquarters are located in Redwood City, California, with additional offices in the United States, India, the United Kingdom and Switzerland.

Fiscal Year

The Company's fiscal year ends on September 30. References to fiscal year 2016, for example, refer to the fiscal year ended September 30, 2016.

2. Summary of Significant Accounting Policies and Estimates

Basis for Presentation

The Company's consolidated financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated upon consolidation. The Company has evaluated subsequent events through the date that the financial statements were issued.

Use of Estimates

The preparation of the accompanying consolidated financial statements in conformity with U.S. GAAP requires management to make certain estimates and assumptions that affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenues and expenses during the reporting periods. Significant items subject to such estimates include revenue recognition, legal contingencies, income taxes, stock-based compensation, and valuation of goodwill and intangibles. These estimates and assumptions are based on management's best estimates and judgment. Management regularly evaluates its estimates and assumptions using historical experience and other factors; however, actual results could differ significantly from these estimates.

Revenue Recognition

Revenues are comprised of license and implementation revenues and Software as a Service ("SaaS") and maintenance revenues.

License and Implementation

License and implementation revenues include revenues from the sale of perpetual software licenses for the Company's solutions and the related implementation services. Based on the nature and scope of the implementation services, the Company has concluded that generally the implementation services are essential to its customers' use of the on premise solutions, and therefore, the Company recognizes revenues from the sale of software licenses for its on premise solutions and the related implementation services on a percentage-of-completion basis over the expected implementation period. The Company estimates the length of this period based on a number of factors, including the number of licensed applications and the scope and complexity of the customer's deployment requirements. The percentage-of-completion computation is measured as the hours expended on the implementation during the reporting period as a percentage of the total estimated hours needed to complete the implementation.

SaaS and Maintenance

SaaS and maintenance revenues primarily include subscription and the related implementation fees from customers accessing the Company's cloud-based solutions and revenues associated with maintenance and support contracts from customers using on premise solutions. Also included in SaaS and maintenance revenues are other revenues, including revenues related to managed support services, training and customer-reimbursed expenses.

MODEL N, INC.

Notes to Consolidated Financial Statements

The Company has determined that its subscriptions have standalone value without the implementation services and allocates revenue to each deliverable in the arrangement based on a selling price hierarchy. The selling price for a deliverable is based on its vendor-specific objective evidence (VSOE), if available, third-party evidence (TPE), if VSOE is not available, or best estimated selling price (BESP), if neither VSOE nor TPE are available. As the Company has been unable to establish VSOE or TPE for the elements of its SaaS arrangements, the Company established the BESP for each element by considering company-specific factors such as existing pricing and discounting. The total arrangement fee for a multiple element arrangement is allocated based on the relative selling price method, taking into consideration contingent revenue restraints. The consideration allocated to subscription fees is recognized as revenue ratably over the contract period. The consideration allocated to implementation services is recognized as revenue as services are performed.

For SaaS arrangements related to Revenue Enterprise Cloud and Revenue Intelligence Cloud, prior to fiscal year 2016, the entire arrangement consideration, including subscription fees and related implementation services fees, were accounted for as a single unit of accounting and recognized ratably beginning the day the customer was provided access to the subscription service through the end of the contractual period. During fiscal year 2016, the Company concluded that the SaaS deliverable has standalone value to the customer without the implementation services, primarily due to the number of third-party consulting companies that have the know-how to be able to independently perform the implementation services.

Revenue related to up-front fees are deferred and recognized ratably over the estimated period that the customer benefits from the related service.

Maintenance and support revenue include post-contract customer support and the right to unspecified software updates and enhancements on a when and if available basis. Managed support services revenue includes supporting, managing and administering our software solutions, and providing additional end user support. Maintenance and support revenue and managed support services revenue are recognized ratably over the period in which the services are provided. The revenue from training and customer-reimbursed expenses is recognized as the Company delivers these services.

Revenue Recognition

The Company commences revenue recognition when all of the following conditions are satisfied: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collection is probable or reasonable estimable. However, determining whether and when some of these criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of revenues the Company reports.

For multiple software element arrangements, the Company allocates the sales price among each of the deliverables using the residual method, under which revenue is allocated to undelivered elements based on their VSOE of fair value. VSOE is the price charged when an element is sold separately or a price set by management with the relevant authority. The Company has established VSOE for maintenance and support and training.

The Company does not offer any contractual rights of return or concessions. The Company's implementation projects generally have a term ranging from a few months to eighteen months and may be terminated by the customer at any time. Should a loss be anticipated on a contract, the full amount of the loss is recorded when the loss is determinable. The Company updates its estimates regarding the completion of implementations based on changes to the expected contract value and revisions to its estimates of time required to complete each implementation project. Amounts that may be payable to customers to settle customer disputes are recorded as a reduction in revenues or reclassified from deferred revenue to customer payables in accrued liabilities and other long-term liabilities.

Costs of Revenues

Cost of license and implementation revenues consists primarily of personnel-related costs including salary, bonus, stock-based compensation, third-party contractor costs and royalty fees paid to third parties for the right to intellectual property. Cost of SaaS and maintenance revenues consists primarily of personnel-related costs including salary, customer reimbursable expense, bonus, stock-based compensation, third party contractors, facility expense and depreciation expense related to server equipment including capitalized software and data center-related expenses.

MODEL N, INC.

Notes to Consolidated Financial Statements

Deferred cost of implementation services consists of costs related to implementation services that were provided to the customer but the revenues for the services have not yet been recognized, provided however that the customer is contractually required to pay for the services. These costs primarily consist of personnel costs. As of September 30, 2016 and 2015, the deferred cost of implementation services totaled $2.1 million and $1.1 million, respectively.

Warranty

The Company provides limited warranties on all sales and provides for the estimated cost of warranties at the date of sale. The estimated cost of warranties has not been material to date.

Foreign Currency Translation

The functional currency of the Company’s foreign subsidiaries is their respective local currency. The Company translates all assets and liabilities of foreign subsidiaries to U.S. dollars at the current exchange rate as of the applicable consolidated balance sheet date. Revenues and expenses are translated at the average exchange rate prevailing during the period. The effects of foreign currency translations are recorded in accumulated other comprehensive loss as a separate component of stockholders’ equity in the accompanying consolidated statements of stockholders’ equity. Realized gains and losses from foreign currency transactions are included in other expenses, net in the consolidated statements of operations and have not been material for all periods presented.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original or remaining maturity of three months at date of purchase to be cash equivalents. The Company’s cash equivalents are comprised of U.S. treasury bills and money market funds, and are maintained with financial institutions with high credit ratings.

Concentration of Credit Risk and Significant Customers

The Company maintains cash and cash equivalents with major financial institutions. The Company’s cash and cash equivalents consist of bank deposits held with banks, U.S. treasury bills and money market funds that, at times, exceed federally insured limits. The Company limits its credit risk by dealing with counterparties that are considered to be of high credit quality and by performing periodic evaluations of its investments and of the relative credit standing of these financial institutions.

Credit risk is the risk of loss from amounts owed by financial counterparties. Credit risk can occur at multiple levels; as a result of broad economic conditions, challenges within specific sectors of the economy, or from issues affecting individual companies. Financial instruments that potentially subject the Company to credit risk consist of cash equivalents and accounts receivable.

In the normal course of business, the Company is exposed to credit risk from its customers. To reduce credit risk, the Company performs ongoing credit evaluations of its customers.

MODEL N, INC.

Notes to Consolidated Financial Statements

The following customers comprised 10% or more of the Company's accounts receivable at September 30, 2016 and 2015 and of the Company's total revenues for the fiscal years ended September 30, 2016, 2015 and 2014, respectively:

	As of September 30,	
Accounts Receivable	2016	2015
Company A	12%	15%

	Fiscal Years Ended September 30,		
Revenue	2016	2015	2014
Company A	N/A	11%	15%

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded at the invoiced amount, net of allowances for doubtful accounts. The allowance for doubtful accounts is based on management's assessment of the collectability of accounts. The Company regularly reviews the adequacy of this allowance for doubtful accounts by considering historical experience, the age of the accounts receivable balances, the credit quality of the customers, current economic conditions, and other factors that may affect customers' ability to pay to determine whether a specific allowance is appropriate. Accounts receivable deemed uncollectable are charged against the allowance for doubtful accounts when identified.

Revenue that has been recognized, but for which the Company has not invoiced the customer, amounting to $2.8 million and $3.0 million is recorded as unbilled receivables and is included in accounts receivables in the consolidated balance sheets as of September 30, 2016 and 2015, respectively. Invoices that have been issued before revenue has been recognized are recorded as deferred revenue in the consolidated balance sheets.

Property and Equipment, Net

Property and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is calculated using on a straight-line basis over the estimated useful lives of the assets. Leasehold improvements are amortized on a straight-line basis over the shorter of lease term or estimated useful lives of the assets.

The estimated useful lives of property and equipment are as follows:

Computer software and equipment	2-5 years
Furniture and fixtures	2-5 years
Leasehold improvements	Shorter of the lease term or estimated useful life
Software development costs	3 years

Costs of maintenance and repairs that do not improve or extend the lives of the respective assets are charged to expense as incurred. Upon retirement or sale of property and equipment, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in statement of operations.

Long-lived Assets

The Company continually monitors events and changes in circumstances that could indicate that carrying amounts of its long-lived assets, including property and equipment and intangible assets may not be recoverable. When such events or changes in circumstances occur, the Company assesses the recoverability of long-lived assets by determining whether the carrying value of such assets will be recovered through their undiscounted expected future cash flows. If the future undiscounted cash flows are less than the carrying amount of these assets, the Company recognizes an impairment loss based on the excess of the carrying amount over the fair value of the assets. The Company did not recognize any impairment charges on its long-lived assets during any periods presented.

MODEL N, INC.

Notes to Consolidated Financial Statements

Goodwill and Intangible Assets

The Company records goodwill when consideration paid in an acquisition exceeds the fair value of the net tangible assets and the identified intangible assets acquired. Goodwill is not amortized, but rather is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may not be recoverable. We conducted our annual impairment test of goodwill as of September 30, 2016 and 2015. We have elected to first assess the qualitative factors to determine whether it is more likely than not that the fair value of our single reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment under Accounting Standards Update (ASU) No. 2011-08, Goodwill and Other (Topic 350): Testing Goodwill for Impairment, issued by the Financial Accounting Standards Board (FASB). If we determine that it is more likely than not that its fair value is less than its carrying amount, then the two-step goodwill impairment test is performed. The first step, identifying a potential impairment, compares the fair value of the reporting unit with its carrying amount. If the carrying amount exceeds its fair value, the second step would need to be performed; otherwise, no further step is required. The second step, measuring the impairment loss, compares the implied fair value of the goodwill with the carrying amount of the goodwill. Any excess of the goodwill carrying amount over the applied fair value is recognized as an impairment loss, and the carrying value of goodwill is written down to fair value.

Intangible assets, consisting of developed technology, backlog, non-competition agreements and customer relationships, are stated at fair value less accumulated amortization. All intangible assets have been determined to have finite lives and are amortized on a straight-line basis over their estimated remaining economic lives, ranging from three to five years. Amortization expense related to developed technology is included in cost of SaaS and maintenance revenue while amortization expense related to backlog, non-competition agreements and customer relationships is included in sales and marketing expense. No goodwill or intangible assets impairment has been identified in any of the years presented.

Research and Development and Capitalization of Software Development Costs

The Company generally expenses costs related to research and development, including those activities related to software solutions to be sold, leased or otherwise marketed. As such development work is essentially completed concurrently with the establishment of technological feasibility, and accordingly, the Company has not capitalized any such development costs.

The Company capitalizes certain software development costs incurred in connection with its cloud-based software platform for internal use. The Company capitalizes software development costs when application development begins, it is probable that the project will be completed, and the software will be used as intended. When development becomes substantially complete and ready for its intended use, such capitalized costs are amortized on a straight-line basis over the estimated useful life of the related asset, which is generally three years. Costs associated with preliminary project stage activities, training, maintenance and all post implementation stage activities are expensed as incurred. The Company capitalized software development costs of $1.1 million and $2.5 million (specifically related to our Revvy product offerings) during the fiscal years ended September 30, 2016 and 2015, respectively.

Fair Value of Financial Instruments

The financial instruments of the Company consist primarily of cash and cash equivalents, accounts receivable, accounts payable and certain accrued liabilities. The Company regularly reviews its financial instruments portfolio to identify and evaluate such instruments that have indications of possible impairment. When there is no readily available market data, fair value estimates are made by the Company, which involves some level of management estimation and judgment and may not necessarily represent the amounts that could be realized in a current or future sale of these assets.

Based on borrowing rates currently available to the Company for financing obligations with similar terms and considering the Company's credit risks, the carrying value of the financing obligation approximates fair value.

MODEL N, INC.

Notes to Consolidated Financial Statements

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The current accounting guidance for fair value instruments defines a three-level valuation hierarchy for disclosures as follows:

Level 1—Unadjusted quoted prices in active markets for identical assets or liabilities;

Level 2—Input other than quoted prices included in Level I that are observable, unadjusted quoted prices in markets that are not active, or other inputs for similar assets and liabilities that are observable or can be corroborated by observable market data; and

Level 3—Unobservable inputs that are supported by little or no market activity, which requires the Company to develop its own models and involves some level of management estimation and judgment.

The Company's Level 1 assets consist of U.S. treasury bills and money market funds. These instruments are classified within Level 1 of the fair value hierarchy because they are valued based on quoted market prices in active markets.

Sales Commissions

Sales commissions are recognized as an expense upon booking the contract. Substantially all of the compensation due to the sales force is earned at the time of the contract signing, with limited ability to recover any commissions paid if a contract is terminated.

Advertising and Promotion Costs

Advertising and promotion costs are expensed as incurred. The Company incurred $0.3 million in advertising and promotions costs during the fiscal years ended September 30, 2016 and 2015, and immaterial amounts during the fiscal years ended September 30, 2014.

Employee Benefit Plan

The Company has a savings plan that qualifies under Section 401(k) of the Internal Revenue Code (IRC). Under these 401(k) Plans, matching contributions are based upon the amount of the employees' contributions subject to certain limitations. We contributed approximately $0.6 million and $0.4 million for the year ended September 30, 2016 and 2015. The Company made no contributions under this plan for year ended September 30, 2014.

Stock-Based Compensation

Stock-based compensation expense for all share-based payment awards granted to our employees and directors including stock options and restricted stock units (RSUs) is measured and recognized based on the fair value of the awards on the grant date. The fair value is recognized as expense, net of estimated forfeitures on a ratable basis, over the requisite service period, which is generally the vesting period of the respective award. The Company uses the

Black-Scholes-Merton valuation model to estimate the fair value of stock option awards. The Black-Scholes-Merton valuation model requires the use of subjective assumptions to determine the fair value of stock option awards, including the expected stock price volatility over the expected term of the options, stock option exercise and cancellation behaviors, risk-free interest rates and expected dividends. The Company periodically estimates the portion of awards which will ultimately vest based on its historical forfeiture experience. These estimates are adjusted over the requisite service period to the extent that actual forfeitures differ, or are expected to differ, from the prior estimates.

Income Taxes

The Company accounts for income taxes in accordance with the FASB ASC No. 740—Accounting for Income Taxes (ASC 740). The Company makes certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, tax benefits and deductions and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of recognition of revenue and expense for tax and financial statement purposes. Significant changes to these estimates may result in an increase or decrease to our tax provision in the subsequent period when such a change in estimate occurs.

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Notes to Consolidated Financial Statements

The Company regularly assesses the likelihood that its deferred income tax assets will be realized from future taxable income based on the realization criteria set forth in ASC 740. To the extent that the Company believes any amounts are not more likely than not to be realized, the Company records a valuation allowance to reduce the deferred income tax assets. In assessing the need for a valuation allowance, the Company considers all available evidence, including past operating results, estimates of future taxable income and the feasibility of tax planning strategies. In the event the Company determines that all or part of the net deferred tax assets are not realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made. Similarly, if the Company subsequently realizes deferred income tax assets that were previously determined to be unrealizable, the respective valuation allowance would be reversed, resulting in an adjustment to earnings in the period such determination is made.

As of September 30, 2016 and 2015, the Company had gross deferred income tax assets, related primarily to net operating loss (NOL) carry forwards, deferred revenues, accruals and reserves that are not currently deductible and depreciable and amortizable items of $56.2 million and $42.1 million, respectively, which have been fully offset by a valuation allowance. Utilization of these net loss carry forwards is subject to the limitations of IRC Section 382. During the year ended September 30, 2013, the Company undertook a study of NOL carry forwards and determined that its NOL carry forwards that are subject to the limitations of IRC Section 382 are not material. However, in the future, some portion or all of these carry forwards may not be available to offset any future taxable income.

Segment

The Company has one operating segment with one business activity, developing and monetizing revenue management solutions. The Company’s Chief Operating Decision Maker (CODM) is its Chief Executive Officer, who manages operations on a consolidated basis for purposes of allocating resources. When evaluating performance and allocating resources, the CODM reviews financial information are presented on a consolidated basis.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive loss. Other comprehensive loss includes foreign currency translation adjustments.

New Accounting Pronouncements

In August 2016, the Financial Accounting Standard Board (“FASB”) issued ASU 2016-15, Statement of Cash Flow (Topic 230), amended the existing accounting standards for the statement of cash flows. The amendments provide guidance on how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The guidance becomes effective for the Company at the beginning of its first quarter of fiscal 2019. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, guidance related to stock-based compensation, which includes the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The guidance becomes effective for the Company at the beginning of its first quarter of fiscal 2018 but permits adoption in an earlier period. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, guidance on the recognition and measurement of leases. Under the new guidance, lessees are required to recognize a lease liability, which represents the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet for most leases. The guidance retains the current accounting for lessors and does not make significant changes to the recognition, measurement, and presentation of expenses and cash flows by a lessee. Enhanced disclosures will also be required to give financial statement users the ability to assess the amount, timing and uncertainty of cash flows arising from leases. The guidance will require modified retrospective application at the beginning of the Company’s first quarter of fiscal 2020, with optional practical expedients, but permits adoption in an earlier period. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

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Notes to Consolidated Financial Statements

In September 2015, the FASB issued ASU 2015-16, Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments. The new standard eliminates the requirement for an acquirer to retrospectively adjust provisional amounts recorded in a business combination to reflect new information about the facts and circumstances that existed as of the acquisition date and that, if known, would have affected measurement or recognition of amounts initially recognized. As an alternative, the standard requires that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. It requires that the acquirer record, in the financial statements of the period in which adjustments to provisional amounts are determined, the effect on earnings of changes in depreciation, amortization or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. The new standard is effective prospectively for fiscal years beginning after December 15, 2015, including interim periods within those fiscal years, with early adoption permitted. The adoption of this standard is not expected to have a material impact on the consolidated financial statements.

In August 2014, the FASB issued ASU No. 2014-15, "Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern" that requires management to evaluate whether there are conditions and events that raise substantial doubt about the Company's ability to continue as a going concern within one year after the financial statements are issued on both an interim and annual basis. Management is required to provide certain footnote disclosures if it concludes that substantial doubt exists or when its plans alleviate substantial doubt about the Company's ability to continue as a going concern. ASU 2014-15 becomes effective for annual periods beginning after December 15, 2016 and for interim reporting periods thereafter. The Company does not expect the adoption of this ASU to have a material impact on the Company's disclosures in the footnotes to its consolidated financial statements.

In May 2014, the Financial Accounting Standard Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers, which amends the existing accounting standards for revenue recognition. ASU 2014-09 is based on principles that govern the recognition of revenue at an amount to which an entity expects to be entitled when products and services are transferred to customers. ASU 2014-09 was originally to be effective for the Company on October 1, 2017. In July 2015, the FASB affirmed a one-year deferral of the effective date of the new revenue standard. The standard will be effective for the Company's fiscal year beginning October 1, 2018, at which time we may adopt the new standard under either the full retrospective method or the modified retrospective method. Early adoption is permitted. The Company is currently evaluating the impact of the adoption of this standard on our consolidated financial statements and has not concluded on an adoption method.

3. Business Combinations

On October 30, 2015, the Company acquired certain assets and liabilities of Channelinsight Inc. (CI), a privately held cloud-based channel data management solution provider. The Company paid a total purchase price of $12.6 million in cash. Pro forma results have not been presented as the Company does not consider the acquisition to be significant.

The purchase consideration was allocated to tangible, identifiable intangible assets acquired and liabilities assumed based on their respective fair values as of the acquisition date. This allocation resulted in fair value allocated to intangible assets of $6.8 million and goodwill of $5.4 million. The goodwill is deductible for tax purposes. Intangible assets acquired included developed technology, backlog, patents, trade names and customer relationships, and are being amortized on a straight-line basis over their estimated useful lives of 1 to 10 years. The key factors attributable to the creation of goodwill by the transaction are synergies in skill-sets, operations, customer base and organizational cultures. The results of operations and the fair values of the assets acquired and liabilities assumed have been included in the accompanying financial statements since the acquisition date.

MODEL N, INC.

Notes to Consolidated Financial Statements

4. Consolidated Balance Sheet Components

Components of property and equipment, and intangible assets consisted of the following:

Property and Equipment

	As of September 30, 2016	2015
	(in thousands)	
Computer software and equipment	$9,319	$8,383
Furniture and fixtures	1,117	673
Leasehold improvements	1,240	875
Software development costs	8,254	6,915
Total property and equipment	19,930	16,846
Less: Accumulated depreciation and amortization	(14,582)	(10,353)
Property and equipment, net	5,348	6,493
Add: Capital projects in progress	793	1,060
Total property and equipment, net	$6,141	$7,553

Computer equipment acquired under the capital leases is included in property and equipment and consisted of the following:

	As of September 30, 2016	2015
	(in thousands)	
Computer software and equipment	$777	$793
Less: Accumulated depreciation and amortization	(777)	(791)
Total computer software and equipment, net	$—	$2

Depreciation expense including depreciation of assets under capital leases totaled $4.5 million, $3.8 million and $3.4 million for the fiscal years ended September 30, 2016, 2015 and 2014, respectively.

Intangible Assets

	Estimated Useful Life (in years)	As of September 30, 2016		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(in thousands)		
Intangible Assets:				
Developed technology	5	$5,313	$ (2,857)	$ 2,456
Backlog	5	280	(149)	131
Non-competition agreement	3	100	(100)	—
Customer relationships	3-10	4,419	(1,331)	3,088
Trade name	1	110	(101)	9
Total		$10,222	$ (4,538)	$ 5,684

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MODEL N, INC.

Notes to Consolidated Financial Statements

		As of September 30, 2015		
	Estimated Useful Life (in years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(in thousands)		
Intangible Assets:				
Developed technology	5	$2,213	$ (1,922)	$ 291
Backlog	5	100	(74)	26
Non-competition agreement	3	100	(100)	—
Customer relationships	3	1,019	(1,019)	—
Total		$3,432	$ (3,115)	$ 317

The Company recorded amortization expense related to the acquired intangible assets of $1.4 million, $0.3 million and $0.3 million during the fiscal years ended September 30, 2016, 2015 and 2014, respectively.

Estimated future amortization expense for the intangible assets as of September 30, 2016 is as follows:

	Fiscal Years Ending September 30,
	(in thousands)
2017	1,256
2018	1,175
2019	1,120
2020	405
2021 and thereafter	1,728
Total future amortization	$ 5,684

5. Financial Instruments

The table below sets forth the Company's cash equivalents as of September 30, 2016 and 2015, which are measured at fair value on a recurring basis by level within the fair value hierarchy. The assets are classified based on the lowest level of input that is significant to the fair value measurement. The Company had no liabilities measured at fair value on a recurring basis.

	Level 1	Level 2	Level 3	Total
	(in thousands)			
As of September 30, 2016:				
Assets:				
Cash equivalents:				
Money market fund deposits	$45,550	$ —	$ —	$45,550
Total	$45,550	$ —	$ —	$45,550
As of September 30, 2015:				
Assets:				
Cash equivalents:				
Money market fund deposits	$45,516	$ —	$ —	$45,516
U.S. treasury bills	35,000	—	—	35,000
Total	$80,516	$ —	$ —	$80,516

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Notes to Consolidated Financial Statements

The Company's cash equivalents as of September 30, 2016 and 2015 consisted of money market funds and treasury bills with original maturity dates of less than three months from the date of their respective purchase. Cash equivalents are classified as Level 1. The fair value of the Company's money market funds approximated amortized cost and, as such, there were no unrealized gains or losses on money market funds as of September 30, 2016 and 2015. As of September 30, 2016 and 2015, amounts of $20.6 million and $10.5 million, respectively, were held in bank deposits.

6. Commitments and Contingencies

Leases

The Company leases facilities under noncancelable operating leases. As of September 30, 2016, future minimum payments under operating leases were as follows:

	Contractual Payment Obligations Due by Period				
	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years
Operating lease obligations[1]	$5,000	$2,500	$1,600	$800	$100

[1] Operating lease obligations represent our obligations to make payments under the lease agreements for our facilities leases.

Rent expense under noncancelable operating leases for the fiscal years ended September 30, 2016, 2015 and 2014 was $2.7 million, $2.3 million and $2.0 million, respectively.

Indemnification Obligations

Each of the Company's software licenses contains the terms of the contractual arrangement with the customer and generally includes certain provisions for defending the customer against any claims that the Company's software infringes upon a patent, copyright, trademark, or other proprietary right of a third party. The software license also provides for indemnification by the Company of the customer against losses, expenses, and liabilities from damages that may be assessed against the customer in the event the Company's software is found to infringe upon such third party rights.

The Company has not had to reimburse any of its customers for losses related to indemnification provisions, and there were no material claims against the Company outstanding as of September 30, 2016 and 2015. For several reasons, including the lack of prior indemnification claims and the lack of a monetary liability limit for certain infringement cases under the software license, the Company cannot estimate the amount of potential future payments, if any, related to indemnification provisions.

As permitted under Delaware law, the Company has indemnification arrangements with respect to its officers and directors, indemnifying them for certain events or occurrences while they serve as officers or directors of the Company.

Legal Proceedings

We are not currently a party to any pending material legal proceedings. From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputational harm and other factors.

MODEL N, INC.

Notes to Consolidated Financial Statements

7. Stock-Based Compensation

2000 Stock Plan

The 2000 Stock Plan (the "2000 Plan") authorized the board of directors to grant incentive share options and non-statutory share options to employees, directors and other eligible participants. Stock purchase rights may also be granted under the 2000 Plan. The exercise price of the stock options shall not be less than the estimated fair value of the underlying shares of the common stock on the grant date. Options generally vest over four years and expire ten years from the date of grant. In connection with the adoption of the 2010 Equity Incentive Plan (the "2010 Plan") in June 2010, the 2000 Plan was terminated and all shares of common stock previously reserved but unissued were transferred to 2010 Plan.

2010 Equity Incentive Plan

On June 15, 2010, the Company's Board adopted the 2010 Equity Incentive Plan under which employees, directors, and other eligible participants of the Company or any subsidiary of the Company may be granted incentive stock options, nonstatutory stock options and all other types of awards to purchase shares of the Company's common stock. The total number of shares reserved and available for grant and issuance pursuant to this 2010 Plan consists of (a) any authorized shares not issued or subject to outstanding grants under the 2000 Plan on the adoption date, (b) shares that are subject to issuance upon exercise of options granted under the Plan but cease to exist for any reason other than exercise of such options; and (c) shares that were issued under the Plan which are repurchased by the Company at the original issue price or forfeited. In connection with the adoption of the 2013 (the "2013 Plan") in February 2013, the 2010 Plan was terminated and all shares of common stock previously reserved but unissued were transferred to 2013 Plan.

2013 Equity Incentive Plan

The Company's board of directors (Board) adopted the 2013 Equity Incentive Plan (2013 Plan) in February 2013, and the stockholders approved the 2013 Plan in March 2013. The 2013 Plan became effective on March 18, 2013 and will terminate in February 2023. The 2013 Plan serves as the successor equity compensation plan to the 2010 Equity Incentive Plan (2010 Plan). The 2013 Plan was approved with a reserve of 8.0 million shares, which consists of 2.5 million shares of the Company's common stock reserved for future issuance under the 2013 Plan and shares of common stock previously reserved but unissued under the 2010 Plan.

Additionally, the 2013 Plan provides for automatic increases in the number of shares available for issuance under it on October 1 of each of the first four calendar years during the term of the 2013 Plan by the lesser of 5% of the number of shares of common stock issued and outstanding on each September 30 immediately prior to the date of increase or the number determined by our board of directors. No further grants will be made under the 2010 Plan, and the balances under the 2010 Plan have been transferred to the 2013 Plan. The 2013 Plan provides for the grant of incentive stock options, nonqualified stock options, restricted stock awards, stock appreciation rights, performance stock awards, restricted stock units and stock bonuses. Awards generally vest over four years and expire ten years from the date of grant.

Stock Options

As of September 30, 2016, 3.6 million shares were available for future stock awards under the plans. There were no stock options granted in fiscal years 2016 and 2015, respectively.

The expected terms of options granted were calculated using the simplified method, determined as the average of the contractual term and the vesting period. Estimated volatility is derived from the historical closing prices of common shares of similar entities whose share prices are publicly available for the expected term of the option. The risk-free interest rate is based on the U.S. treasury constant maturities in effect at the time of grant for the expected term of the option. We use historical data to estimate the number of future stock option forfeitures.

MODEL N, INC.

Notes to Consolidated Financial Statements

The following table summarized the stock option activity and related information under all stock option plans:

	Number of Shares (in thousands)	Weighted Average Exercised Price	Weighted Average Remaining Contract Term (in years)	Aggregate Intrinsic Value (in thousands)
Balance at September 30, 2013	3,868	$ 5.07	5.34	$ 21,122
Exercised	(1,689)	1.80	—	
Forfeited	(178)	11.29	—	
Expired	(120)	10.60	—	
Balance at September 30, 2014	1,881	7.07	5.98	$ 7,055
Exercised	(354)	3.71	—	
Forfeited	(177)	12.01	—	
Expired	(231)	12.18	—	
Balance at September 30, 2015	1,119	6.29	4.68	$ 4,904
Exercised	(233)	3.96	—	
Forfeited	(12)	13.70	—	
Expired	(68)	12.72	—	
Balance at September 30, 2016	806	$ 6.31	3.56	$ 4,103
Options exercisable as of September 30, 2016	801	$ 6.29	3.54	$ 4,103
Options vested and expected to vest as of September 30, 2016	806	$ 6.33	3.56	$ 4,103

The intrinsic value of options exercised during 2016, 2015 and 2014 was $1.7 million, $2.6 million and $13.8 million, respectively. The total estimated fair value of options vested during 2016, 2015 and 2014 was $0.4 million, $1.6 million and $0.6 million respectively.

Employee Stock Purchase Plan

The 2013 Employee Stock Purchase Plan (ESPP) became effective on March 19, 2013. The ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to 15% of their eligible compensation, at not less than 85% of the fair market value, as defined in the ESPP, subject to any plan limitations. Except for the initial offering period, the ESPP provides for six-month offering periods, starting on February 20 and August 20 of each year.

The following table summarized the weighted-average assumptions used to estimate the fair value of rights to acquire stock granted under the Company’s ESPP plan during the periods presented:

	Fiscal Years Ended September 30,		
	2016	2015	2014
Risk-free interest rate	0.38 %	0.12 %	0.12 %
Dividend yield	—	—	—
Volatility	34 %	33 %	34 %
Expected term (in years)	0.50	0.50	0.77

MODEL N, INC.

Notes to Consolidated Financial Statements

Performance-based Restricted Stock Units

On December 6, 2013, the Compensation Committee of the Board approved initial grants of an aggregate of 280,000 performance-based restricted stock units to three of the Company's senior officers, including the Chief Executive Officer and the Chief Financial Officer. Under the terms of these grants, the actual number of shares released could be 0% to 250% of the initial grant based on the Company's total shareholder return (TSR) relative to the TSR of the Russell 3000 index (Index) over a three-year period. In any of the three years, no shares will be released if the TSR of the Company's common stock is below the 30th percentile relative to the Index; 100% of the initial grant will be released if the Company's TSR is at the 50th percentile relative to the Index; and 250% of the initial grant will be released if the Company's TSR is over the 90th percentile relative to the Index. These grants vest as to one-third on each annual anniversary of November 22, 2013, with a "catch-up" provision such that shares not earned in a prior year may be earned in a subsequent year subject to the Company's TSR achieving a certain level relative to the Index and exceeding the prior year's TSR. These grants have a ten-year term, subject to their earlier termination upon certain events including the awardee's termination of employment. As of September 30, 2016 approximately 53,000 of performance based stock units were forfeited and 296,333 shares were released based on the Company's TSR relative to the Index.

The fair value of these grants with a market condition is recognized using the graded-vesting attribution method over the requisite service period. The Company used the Monte-Carlo simulation model to calculate the fair value of these awards on the grant date. The Monte-Carlo simulation model takes into account the same input assumptions as the Black-Scholes model; however, it also further incorporates into the fair value determination the possibility that the performance criteria may not be satisfied. The weighted-average assumptions used to estimate the fair values of these awards were determined using the following assumptions for the fiscal year ended September 30, 2016:

Risk-free interest rate	0.63	%
Dividend yield	—	
Volatility	39	%

On March 9, 2015, the Compensation Committee of the Board of Directors granted an aggregate of 348,700 performance-based restricted stock units to members of the Company's executive team, including the Chief Executive Officer and the Chief Financial Officer. Under the terms of these grants, the actual number of shares that will vest and be released will range from 0% to 250% of the grant based on the performance of the Company's TSR relative to the TSR of the Index over a three-year period. No shares will vest and be released in the first year. In any of the two remaining years, no shares will vest and be released if the TSR of the Company's common stock is below the 30th percentile relative to the Index; 100% of the grant will vest and be released if the Company's TSR is at the 50th percentile relative to the Index; and 250% of the grant will vest and be released if the Company's TSR is over the 90th percentile relative to the Index. These grants vest over a three-year period with 50% vesting on each of the second and the third annual anniversary of the vesting commencing date of February 15, 2015. In addition, these grants have a "catch-up" provision such that if the Company's TSR relative to the Index for the three-year period exceeds that of the two-year period, additional shares for the two-year period will vest and be released based on the three-year achievement level. These grants have a ten-year term, subject to their earlier termination upon certain events including the awardee’s termination of employment. During the fiscal year ended September 30, 2016 and 2015, approximately 55,700 and 13,000 of performance-based restricted stock units were forfeited and no shares were released based on the Company’s TSR relative to the Index.

The fair value of these grants with a market condition is recognized using the graded-vesting attribution method over the requisite service period. The Company used the Monte-Carlo simulation model to calculate the fair value of these awards on the grant date. The Monte-Carlo simulation model takes into account the same input assumptions as the Black-Scholes model; however, it also further incorporates into the fair value determination the possibility that the performance criteria may not be satisfied.

The grant date fair values of these awards were determined using the following assumptions:

Risk-free interest rate	1.10	%
Dividend yield	—	
Volatility	32	%

MODEL N, INC.

Notes to Consolidated Financial Statements

During fiscal year 2016, the Compensation Committee of the Board of Directors granted an aggregate of 618,480 performance-based restricted stock units to members of the Company's leadership team, including the Chief Executive Officer and the Chief Financial Officer. Under the terms of these grants, the actual number of shares that will vest and be released will range from 0% to 250% of the grant based on the performance of the Company's TSR relative to the TSR of the Index over a three-year period. No shares will vest and be released in the first year. In any of the two remaining years, no shares will vest and be released if the TSR of the Company's common stock is below the 30th percentile relative to the Index; 100% of the grant will vest and be released if the Company's TSR is at the 50th percentile relative to the Index; and 250% of the grant will vest and be released if the Company's TSR is over the 90th percentile relative to the Index. These grants vest over a three-year period with 50% vesting on each of the second and the third annual anniversary of the vesting commencing date of February 15, 2016 or 2017. In addition, these grants have a "catch-up" provision such that if the Company's TSR relative to the Index for the three-year period exceeds that of the two-year period, additional shares for the two-year period will vest and be released based on the three-year achievement level. These grants have a ten-year term, subject to their earlier termination upon certain events including the awardee's termination of employment. During fiscal year ended September 30, 2016, no performance-based restricted stock units were forfeited and no shares were released.

The grant date fair values of these awards were determined using the following assumptions:

Risk-free interest rate	0.86%-1.15%
Dividend yield	—
Volatility	45%

The following table summarizes the Company's restricted stock and restricted stock unit activity under all equity award plans:

	Restricted Stock Units Outstanding (in thousands)	Weighted Average Grant Date Fair Value
Balance at September 30, 2013	991	$ 15.68
Granted	1,774	9.89

Released	(58	)	16.83
Forfeited	(442	)	8.79
Balance at September 30, 2014	2,265		$ 12.46
Granted	1,505		11.17
Released	(963	)	11.20
Forfeited	(505	)	11.66
Balance at September 30, 2015	2,302		$ 12.32
Granted	2,064		10.61
Released	(720	)	10.50
Forfeited	(529	)	11.24
Balance at September 30, 2016	3,117		$ 11.81

The total fair value of restricted stock and restricted stock awards vested for the years ended September 30, 2016, 2015 and 2014 was $7.6 million, $10.7 million and $0.9 million, respectively.

The following table summarizes certain information of the unvested awards as of September 30, 2016:

	Restricted Stock Units [1]	ESPP
Total compensation cost for unvested (in millions)	$ 21.8	$ 0.3
Weighted-average period to recognize (in years)	2.3	0.4

(1): Includes restricted stock, restricted stock units and performance-based restricted stock awards.

MODEL N, INC.

Notes to Consolidated Financial Statements

Stock-based Compensation

Stock-based compensation recorded in the statements of operations is as follows:

	Fiscal Years Ended September 30,		
	2016	2015	2014
Cost of revenues:	(in thousands)		
License and implementation	$918	$699	$905
SaaS and maintenance	1,032	799	749
Total stock-based compensation in cost of revenues	1,950	1,498	1,654
Operating expenses:			
Research and development	1,393	1,353	1,278
Sales and marketing	3,307	3,202	2,789
General and administrative	6,418	4,302	4,228
Total stock-based compensation in operating expenses	11,118	8,857	8,295
Stock-based compensation in operating loss	13,068	10,355	9,949
Stock-based compensation capitalized as software development cost	—	109	27
Total stock-based compensation	$13,068	$10,464	$9,976

8. Income Taxes

The components of loss before income taxes are as follows:

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Domestic	$(34,527)	$(20,292)	$(21,279)
Foreign	1,751	1,181	782
Loss before taxes	$(32,776)	$(19,111)	$(20,497)

The Company has made no provision for U.S. income taxes on approximately $4.1 million of cumulative undistributed earnings of certain foreign subsidiaries at September 30, 2016 because it is the Company's intention to reinvest such earnings permanently. The determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable.

The components of the provision for income taxes are as follows:

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Current			
State	$23	$13	$53
Foreign	140	482	295
	163	495	348
Deferred			
Federal	150	27	27
State	22	6	9
	172	33	36
Total provision for income taxes	$335	$528	$384

MODEL N, INC.

Notes to Consolidated Financial Statements

Reconciliation of the statutory federal income tax to the Company's effective tax:

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Tax at statutory federal rate	$(11,147)	$(6,498)	$(6,969)
State tax, net of federal benefit	23	13	53
Permanent differences	571	729	727
Foreign tax rate differential	(453)	81	29
Change in valuation allowance	12,008	6,648	6,625
Research and development tax credits	(834)	(450)	(175)
Foreign tax credits	—	(7)	35
Change in deferred tax liabilities	173	33	36
Other	(6)	(21)	23
Total provision for income taxes	$335	$528	$384

The Company is subject to income taxes in U.S. federal and various state, local and foreign jurisdictions. The tax years ended from September 2000 to September 2016 remain open to examination due to the carryover of unused net operating losses or tax credits.

Deferred tax assets and liabilities consisted of the following:

	As of September 30,	
	2016	2015
	(in thousands)	
Deferred tax assets:		
Depreciation and amortization	$436	$(388)
Accruals and other	2,616	2,698
Deferred revenue	4,295	2,795
NOL carry-forward	35,885	27,107
Stock compensation	4,389	2,733
Research and development tax credits	8,492	7,183
Total deferred tax assets	56,113	42,128
Valuation allowance	(56,113)	(42,128)
Net deferred tax assets	$—	$—
Deferred tax liabilities:		
Intangibles	$(295)	$(122)

A valuation allowance is provided when it is more likely than not that the deferred tax assets will not be realized. The Company had established a valuation allowance to offset net deferred tax assets at September 30, 2016, 2015, and 2014 due to the uncertainty of realizing future tax benefits from its net operating loss carry-forwards and other deferred tax assets. The net change in the total valuation allowance for the year ended September 30, 2016 was an increase of approximately $14.0 million.

At September 30, 2016, the Company has federal and California net operating loss carry-forwards of approximately $105.3 million and $34.6 million, respectively. The federal and California net operating losses will begin expiring in 2021 and 2017, respectively. At September 30, 2016, the Company also had other state net operating loss carry-forwards of approximately $2.3 million which will begin expiring in 2017. At September 30, 2016, the Company had federal and state research credit carry forwards of approximately $5.9 million and $6.6 million, respectively. The federal research and development credit carry-forwards will begin expiring in 2020. The California tax credit can be carried forward indefinitely.

The Company is tracking its deferred tax assets attributable to stock option benefits in a separate memo account pursuant to ASC 718. Therefore, these amounts are not included in the Company's gross or net deferred tax assets. As of September 30, 2016, 2015 and 2014, the Company had stock option benefits of approximately $3.9 million, $3.7 million and $3.1 million, respectively. Pursuant to ASC 718-740-25-10, the stock option benefits will be recorded to equity when they reduce cash taxes payable.

MODEL N, INC.

Notes to Consolidated Financial Statements

As of September 30, 2016, the Company had unrecognized tax benefits of approximately $3.3 million. It is unlikely that the amount of liability for unrecognized tax benefits will significantly change over the next twelve months. The Company's policy is to recognize interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. As of September 30, 2016, there was a liability of $0.2 million related to uncertain tax positions recorded on the financial statements.

Internal Revenue Code section 382 places a limitation (the "Section 382 Limitation") on the amount of taxable income can be offset by net operating ("NOL") carry-forwards after a change in control (generally greater than 50% change in ownership) of a loss corporation. California has similar rules. The Company's capitalization described herein may have resulted in such a change. Generally, after a control change, a loss corporation cannot deduct NOL carry-forwards in excess of the Section 382 limitation. A high level IRC Section 382 analysis has been performed as of September 30, 2016 and determined there would be no effect on the NOL Deferred Tax Asset if ownership changes occurred.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Unrecognized tax benefits at the beginning of the period	$3,119	$2,513	$1,979
Gross increase based on tax positions during the prior period	(147)	58	18
Gross increase based on tax positions during the current period	338	548	516
Unrecognized tax benefits at the end of the period	$3,310	$3,119	$2,513

9. Net Loss Per Share

The Company’s basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period, which excludes unvested restricted stock awards. The diluted net loss per share attributable to common stockholders is computed by giving effect to all potentially dilutive common stock equivalents outstanding for the period. For purposes of this calculation, options to purchase common stock, unvested restricted stock awards and unvested restricted stock units are considered to be common stock equivalents.

Fiscal Years Ended
September 30,

	2016	2015	2014
	(in thousands, except per share data)		
Numerator:			
Basic and diluted:			
Net loss attributable to common stockholders	$(33,111)	$(19,639)	$(20,881)
Denominator:			
Basic and diluted:			
Weighted Average Shares Used in Computing Net Loss per Share Attributable to Common Stockholders	27,379	26,015	24,399
Net Loss per Share Attributable to Common Stockholders:			
Basic and diluted	$(1.21)	$(0.76)	$(0.86)

MODEL N, INC.

Notes to Consolidated Financial Statements

The following weighted average shares of common stock equivalents were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because including them would have been antidilutive:

	Fiscal Years Ended September 30,		
	2016	2015	2014
	(in thousands)		
Stock options	650	1,228	1,971
Performance-based restricted stock units and restricted stock units	736	724	1,091
ESPP	$—	20	23

10. Geographic Information

The Company has one operating segment with one business activity - developing and monetizing revenue management solutions.

Revenues from External Customers

Revenues from customers outside the United States were 10%, 6% and 11% of total revenues for the fiscal years ended September 30, 2016, 2015 and 2014, respectively. No location outside of the United States has revenues in excess of 10%.

Long-Lived Assets

The following table sets forth the Company’s property and equipment, net by geographic region:

	As of September 30,	
	2016	2015
	(in thousands)	
United States	$4,817	$6,080
India	1,324	1,473
Total property and equipment, net	$6,141	$7,553

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2016. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits 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 include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Based on the evaluation of our disclosure controls and procedures as of September 30, 2016, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of September 30, 2016 using the criteria established in Internal Control—Integrated Framework (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based on our evaluation under the COSO framework, our management has concluded that our internal control over financial reporting is effective as of September 30, 2016 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.

This Annual Report on Form 10-K does not include an attestation report of our registered public accounting firm on our internal control over financial reporting due to an exemption established by the JOBS Act for "emerging growth companies."

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended September 30, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. Other Information

None.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Information about our Executive Officers and our Directors is incorporated by reference to information contained in the Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of September 30, 2016.

We have adopted a code of business conduct for directors and a code of business conduct for all of our employees, including our executive officers, and those employees responsible for financial reporting. Both codes of business conduct are available on the investor relations portion of our website at investor.modeln.com. A copy may also be obtained without charge by contacting Investor Relations, Model N, Inc., 1600 Seaport Boulevard, Suite 400, Pacific Shores Center, Building 6, Redwood City, CA 94063 or by calling (650) 610-4998.

We plan to post on our website at the address described above any future amendments or waivers of our codes of business conduct.

ITEM 11. Executive Compensation

The information required by this item is incorporated by reference to information contained in the Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of September 30, 2016.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated by reference to information contained in the Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of September 30, 2016.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference to information contained in the Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of September 30, 2016.

ITEM 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference to information contained in the Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed with the SEC within 120 days of September 30, 2016.

PART IV

ITEM 15. Exhibits and Financial Statement Schedules
(1) Financial Statements
The financial statements are set forth in Item 8 of this Annual Report on Form 10-K.

(2) Financial Statement Schedule
Schedule II - Valuation and qualifying accounts

The table below presents the changes in the allowance for doubtful accounts for the fiscal years ended September 30, 2016, 2015, and 2014, respectively.

Description	Balance at Beginning of Period	Additions Charges to Costs and Expenses	Write-offs and Deductions	Balance at End of Period
Allowance for doubtful receivables				
For the Year Ended September 30, 2016	$—	—	—	$ —
For the Year Ended September 30, 2015	$—	—	—	$ —
For the Year Ended September 30, 2014	$46	—	46	$ —
Valuation allowance for deferred tax assets				
For the Year Ended September 30, 2016	$42,128	13,985	—	$ 56,113
For the Year Ended September 30, 2015	$34,685	7,443	—	$ 42,128
For the Year Ended September 30, 2014	$26,895	7,790	—	$ 34,685

(3) Exhibits
The following exhibits are included herein or incorporated herein by reference:

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of the Registrant	10-Q	001-35840	3.1	5/10/2013	
3.2	Amended and Restated Bylaws of the Registrant	10-Q	001-35840	3.2	5/10/2013	
4.1	Form of Registrant's Common Stock certificate	S-1	333-186668	4.01	3/7/2013	
4.2	Amended and Restated Investor Rights Agreement dated December 12, 2003 by and among Registrant and certain of its stockholders	S-1	333-186668	4.02	2/13/2013	
10.1	Form of Indemnity Agreement to be entered into between Registrant and each of its officers and directors	S-1	333-186668	10.01	3/12/2013	
10.2†	2000 Stock Plan and forms of stock option agreement and stock option exercise agreement	S-1	333-186668	10.02	2/13/2013	
10.3†	2010 Equity Incentive Plan and forms of stock option agreement and stock option exercise agreement	S-1	333-186668	10.03	2/13/2013	
10.4†	2013 Equity Incentive Plan and forms of stock option agreement and stock option exercise agreement	S-1	333-186668	10.04	3/7/2013	
10.5†	2013 Employee Stock Purchase Plan	S-8	333-187388	99.4	3/20/2013	
10.6†	Employment offer letter dated February 4, 2016 by and between Registrant and Edward Sander.	10-Q	001-35840	10.6	2/9/2016	
10.7†	Employment offer letter dated April 27, 2014 by and between Registrant and Mark Tisdel.	10-K	001-35840	10.6	11/19/2014	
10.8†	Employment offer letter dated October 2, 2013 by and between Registrant and Chris Larsen.	10-K	001-35840	10.7	11/19/2014	
10.9†	Form of Restricted Stock Unit Agreement	10-K	001-35840	10.12	12/6/2013	
10.10	Sublease Agreement by and among Openwave Mobility, Inc., Openwave Messaging, Inc. and Registrant dated May 12, 2014	10-Q	001-35840	10.12	8/8/2014	

21.1	List of Subsidiaries of Registrant	X
23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm	X
24.1	Power of Attorney (included on the signature page to this report)	X
31.1	Certification of Periodic Report by Principal Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002	X
31.2	Certification of Periodic Report by Principal Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002	X
32.1*	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X
32.2*	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed Herewith
101.INS	XBRL Instance Document					X
101.SCH	XBRL Taxonomy Extension Schema Document					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					X

† Indicates a management contract or compensatory plan.

* These exhibits are furnished with this Annual Report on Form 10-K and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of the Registrant under the Securities Act of 1933 or the Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in such filings.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in Redwood City, State of California, on this 18th day of November 2016.

MODEL N, INC.

By: /S/ MARK TISDEL
Mark Tisdel
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Edward Sander or Mark Tisdel, or any of them, his attorneys-in-fact, for such person in any and all capacities, to sign any amendments to this report and to file the same, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that either of said attorneys-in-fact, or substitute or substitutes, may do or cause to be done by virtue hereof.

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.

Name	Title	Date
/S/ ZACK RINAT	Founder, Executive Chairman and	November 18, 2016
Zack Rinat	Chief Executive Officer	
	(Principal Executive Officer)	
/S/ MARK TISDEL	Chief Financial Officer	November 18, 2016
Mark Tisdel	(Principal Financial Officer and Accounting Officer)	
Additional Directors:		
/S/ MELISSA FISHER	Director	November 18, 2016
Melissa Fisher		
/S/ DAVID BONNETTE	Director	November 18, 2016
David Bonnette		
/S/ CHARLES J. ROBEL	Director	November 18, 2016
Charles J. Robel		
/S/ MARK LESLIE	Director	November 18, 2016
Mark Leslie		
/S/ ALAN HENRICKS Alan Henricks	Director	November 18, 2016

Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of the Registrant	10-Q	001-35840	3.1	5/10/2013	
3.2	Amended and Restated Bylaws of the Registrant	10-Q	001-35840	3.2	5/10/2013	
4.1	Form of Registrant's Common Stock certificate	S-1	333-186668	4.01	3/7/2013	
4.2	Amended and Restated Investor Rights Agreement dated December 12, 2003 by and among Registrant and certain of its stockholders	S-1	333-186668	4.02	2/13/2013	
10.1	Form of Indemnity Agreement to be entered into between Registrant and each of its officers and directors	S-1	333-186668	10.01	3/12/2013	
10.2†	2000 Stock Plan and forms of stock option agreement and stock option exercise agreement	S-1	333-186668	10.02	2/13/2013	
10.3†	2010 Equity Incentive Plan and forms of stock option agreement and stock option exercise agreement	S-1	333-186668	10.03	2/13/2013	
10.4†	2013 Equity Incentive Plan and forms of stock option agreement and stock option exercise agreement	S-1	333-186668	10.04	3/7/2013	
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101.LAB	XBRL Taxonomy Extension Label Linkbase Document	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	X

† Indicates a management contract or compensatory plan.

* As contemplated by SEC Release No. 33-8212, these exhibits are furnished with this Annual Report on Form 10-K and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of the Registrant under the Securities Act of 1933 or the Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in such filings.