

PROS Holdings, Inc.
Form 10-K
February 27, 2015
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K
(MARK ONE)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2014

OR
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____
Commission File Number 001-33554

PROS HOLDINGS, INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware 76-0168604
(State or Other Jurisdiction of (I.R.S. Employer
Incorporation or Organization) Identification No.)

3100 Main Street, Suite 900, Houston, Texas 77002
(Address of Principal Executive Offices) (Zip code)
Registrant's telephone number, including area code: (713) 335-5151
Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value \$0.001 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 Exchange Act.
Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of

this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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.:

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 Act). Yes No

The aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant was approximately \$636.3 million as of June 30, 2014 based upon the closing price for the registrant's of the common stock on the New York Stock Exchange. This determination of affiliate status was based on publicly filed documents and is not necessarily a conclusive determination for other purposes.

As of February 24, 2015, there were outstanding 29,332,176 shares of common stock, par value \$0.001, of the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement relating to its 2015 Annual Stockholders Meeting, to be filed within 120 days of the end of the fiscal year ended December 31, 2014, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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SIGNIFICANT RELATIONSHIPS REFERENCED IN THIS ANNUAL REPORT

The terms "PROS," "we," "us," and "our" refers to PROS Holdings, Inc., a Delaware corporation, and all of its subsidiaries that are consolidated in conformity with the generally accepted accounting principles in the United States of America ("GAAP").

CAUTIONARY STATEMENT REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains certain statements that may be deemed to be "forward-looking statements" that anticipate results based on our estimates, assumptions and plans that are subject to uncertainty. These statements are made subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements in this report not dealing with historical results or current facts are forward-looking and are based on estimates, assumptions and projections. Statements which include the words "believes," "seeks," "expects," "may," "should," "intends," "likely," "targets," "plans," "anticipates," "estimates," or the negative version of those words and similar statements of future or forward-looking nature identify forward-looking statements. The forward-looking statements made herein are only made as of the date hereof, and we undertake no obligation to publicly update such forward-looking statements whether as a result of new information, future events or otherwise.

Numerous important factors, risks and uncertainties affect our operating results, including, without limitation, those contained in this report, and could cause our actual results to differ materially, from the results implied by these or any other forward-looking statements made by us or on our behalf. There can be no assurance that future results will meet expectations. You should pay particular attention to the important risk factors and cautionary statements described in the section of this report entitled "Risk Factors". You should also carefully review the cautionary statements described in the other documents we file from time to time with the Securities and Exchange Commission ("SEC"), specifically all Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Information contained on our website is not part of this report.

Part I

Item 1. Business

Overview

PROS provides big data software solutions designed to help companies outperform in their markets by using big data to sell more effectively. We apply years of data science experience to unlock buying patterns and preferences within transaction data to reveal which opportunities are most likely to close, which offers are most likely to sell and which prices are most likely to win. PROS offers big data software solutions to analyze, execute, and optimize sales, pricing, quoting, rebates, and revenue management. We also provide professional services to implement our software solutions. We have completed over 800 implementations of our solutions, across more than 40 industries in more than 55 countries.

We were incorporated in Texas in 1985. We reincorporated as a Delaware corporation in 1998. In 2002, we reorganized as a holding company in Delaware. In December 2013 we acquired SignalDemand, Inc., a Delaware corporation ("SignalDemand"), an optimization software company, for total cash consideration of \$13.5 million. In November 2014, we completed the acquisition of Cameleon Software SA, a French société anonyme ("Cameleon"), in an all-cash transaction valued at approximately €24 million (U.S. \$33 million), net of cash acquired. Our principal executive offices are located at 3100 Main Street, Suite 900, Houston, Texas 77002. We report as one operating segment with our Chief Executive Officer acting as our chief operating decision maker.

Our telephone number is (713) 335-5151. Our website is www.PROS.com. Our website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

Our industry

Data-driven decision making is an important driver of business performance. The proliferation of high volume, high velocity and complex data, commonly referred to as "big data", is increasing rapidly, and companies are demanding cost-effective, innovative forms of information processing to exploit big data. Software applications can leverage big data to enhance insight and help companies make business decisions that affect growth and profitability. We believe software applications that apply data science to big data are one of the most compelling opportunities for companies to improve sales, pricing, quoting, rebates, and revenue management. These applications allow companies to move from instinct-driven sales, pricing, and revenue management strategies, to data-driven strategies. We expect market forces to continue to accelerate the demand for big data solutions. These forces include increasingly complex customers, markets and business models, uncertain demand for products and services, volatile costs, proliferation of competitive alternatives, and exponentially increasing enterprise and market data. We believe the market

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for big data science and technology is a large and growing opportunity that spans most major industries.

Our solutions

We believe our big data solutions help transform our customers' big data into a strategic advantage. By using our solutions, our customers can gain greater confidence and agility in their selling strategies through data-driven insights into sales transactions. These insights include the customers and prospects of a company that are most likely to buy, and which offers and pricing are most likely to result in a closed deal. We seek to deliver these insights through software packages that apply data science to a company's historic customer transaction, market and other data to uncover customer buying patterns and preferences. Our solutions make it easier for companies to configure the correct product(s), set the right price and get a quote into the hands of a customer quickly. The data science embedded in our solutions provides our customers with predictive and prescriptive guidance on key business decisions that drive growth and profitability, including product mix optimization, price forecasting, price optimization, product configuration recommendations, cross-sell and upsell recommendations, attrition detection, and willingness-to-pay. Our solutions also help to streamline sales, pricing and revenue management processes with enhanced automation, controls, and compliance.

Our high-performance software architecture supports real-time, high-volume transaction processing and enables us to handle the processing and database requirements of sophisticated customers, including those who need to respond to their customers with sub-second electronic response requirements. We provide standardized configurations of our software based on the industries we serve and offer professional services to configure these solutions to meet the specific needs of each customer. Our software solutions currently operate in some of the largest, most complex and demanding information technology environments.

We license our solutions under both perpetual and term license models for customers. For perpetual licenses, our customers receive the perpetual right to use our software. Our license agreements provide customers with the right to use licensed solutions within a specific license scope, including but not limited to revenue, geography, users, and business unit. The vast majority of our software license customers also purchase software license updates and product support, generally for a period of two years. Software license updates include unspecified software updates and enhancements on a when and if available basis, maintenance releases, and patches released during the term of the support period.

We also offer some of our solutions as Software-as-a-Service ("SaaS"). Our SaaS offerings generally provide customers access to certain of our software within a cloud-based IT environment that we manage and offer to customers on a subscription basis and allow our customers to reduce infrastructure, installation, and ongoing administration requirements. This model provides an alternative to our perpetual license sales model. We offer both single-tenant and multi-tenant solutions under our SaaS model via multi-year subscriptions with pricing generally based on the number of users, data volume or revenue managed by our software.

Our license, services and subscription revenue comprised 71%, 68% and 66% of our total revenue in fiscal 2014, 2013 and 2012, respectively. For a discussion of our revenue recognition policies and the impact of our licensing models on revenue, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, and Note 2 of the Notes to the Consolidated Financial Statements.

Big Data Solutions for Pricing and Sales Effectiveness

PROS pricing and sales effectiveness software solutions enable companies in the manufacturing, distribution and services industries to analyze, optimize and execute sales, pricing, quoting and rebate strategies. PROS big data solutions for pricing and sales effectiveness include the following solutions:

Scientific Analytics helps companies gain insight into their sales and pricing performance by applying data science, allowing them to take action to improve overall performance and take advantage of time-sensitive opportunities. Price Optimizer streamlines pricing processes and creates pricing policy controls to support corporate business goals. Price Optimizer allows organizations to apply data science to create multiple segment-specific rules-based price lists and quickly modify prices or guidelines in response to changing conditions, including market volatility or changes in business strategy. Deal Optimizer applies data science to recommend optimized prices and products on a transaction-specific basis for sales representatives in negotiated transaction environments, tailored to the unique characteristics of the customer transaction. Deal Optimizer provides insight into customer buying behavior, enabling companies to better match offers to each of their customers' unique perception of value.

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Sales Optimizer provides sales people with a 360-degree view into a customer's business. By handling all forms of a company's commercial transactions, including contracts, quotes, bids, price lists and rebates, Sales Optimizer provides insights into a customer's book of business so it is able to make more informed decisions.

Cameleon CPQ is a mobile, intelligent quoting solution designed to provide sales people or customers with the right questions to quickly identify the products and/or services that best meet the customer's needs and prepare a quote featuring the correct combination of products/services at the optimum price, as well as identify cross-sell and up-sell opportunities to increase the value to the company. Cameleon CPQ helps companies (in both business-to-consumer (B2C) and business-to-business (B2B) sales environments) close deals faster through automation, data science, analytics, pricing guidance and execution by providing an intelligent pricing engine, proposal generator, quoting system, and rule engine complemented by approval workflows.

Our solution architecture allows our customers to deploy all of these solutions either simultaneously or sequentially. These solutions provide businesses with tools and processes to help:

- Provide sales negotiation guidance encompassing pricing, cross-sell and upsell opportunities using a foundation of data science;
- Establish pricing strategies that optimize product and account price points based on revenue, margin and/or market share goals;
- Benchmark sales opportunities to peer groups based on relevant metrics, including willingness to pay;
- Identify underperforming products and at-risk accounts to allow timely corrective action;
- Analyze key revenue and margin drivers, including price, cost, volume, product mix and exchange rates;
- Benchmark sales, pricing, and rebate performance and market conditions against performance goals;
- Create and manage pricing, rebate and discounting policies aligned with corporate strategies; and
- Automate quoting and pricing approval workflow to ensure consistency and auditability.

Big Data Solutions for Resource-Driven and Commodity-Based Companies

PROS manufacturing optimization software solutions enable companies in the agri-business, food and mill product industries to analyze and optimize capacity planning, mix, blend and pricing decisions. PROS big data solutions for commodity based manufacturers include the following solutions:

EnterpriseOptimizer enables manufacturers to optimize business performance through improved margins and profitability by recommending the ideal mix of customers and channels to sell to and the best price for each as well as an optimized product formulation, purchase plan and product mix that maximizes margins under changing market conditions.

MixOptimizer allows manufacturers to coordinate raw material inputs, inventory, production capacity and demand forecasts to optimize product and channel mix.

CapacityOptimizer allows asset intensive manufacturers to maximize capacity utilization and the margin per capacity unit of their facilities by defining the percentage of product that should be sold in advance, helping ensure product availability for key customers, and minimizing excess capacity.

MarginOptimizer allows manufacturers to maximize margin contribution based on products, time, channels and customer segments when selling to customers in highly volatile markets.

BlendOptimizer allows process manufacturers to forecast raw material prices across various time horizons to optimize the blend of component materials to help deliver finished goods at the lowest possible cost.

Big Data Solutions for Revenue Management for Travel Industry Companies

PROS revenue management solutions are a set of integrated software solutions that enable enterprises in the travel industry, including the airline, hotel and cruise industries, to drive revenue and profit-maximizing business strategies

through the application of advanced forecasting and optimization technologies and decision-support capabilities. PROS big data solutions for revenue management include the following solutions:

• PROS Analytics for Airlines identifies hidden revenue opportunities;

• PROS Revenue Management manages passenger demand with either leg- or segment-based revenue management;

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- PROS O&D™ manages passenger demand with passenger name record ("PNR"), based revenue management;
- PROS Real-Time Dynamic Pricing™ determines optimal availability based on real-time evaluations;
- PROS Group Revenue Management manages revenues related to group requests and bookings;
 - PROS Network Revenue Planning delivers network-oriented fare class segmentation;
- PROS Availability Server provides real-time availability and pricing to distribution channels, and keeps rules, fares and other data synchronized and deployable across multiple data centers;
- PROS Cruise Pricing and Revenue Management allows customers to understand their consumers price sensitivities, track competitor behavior, and quickly set prices and availability; and
- PROS Hotel Revenue Management helps customers simplify, accelerate and improve pricing decision making.

These big data solutions provide businesses the tools and processes to help:

- Maximize revenue and profitability;
- Quickly adapt to changing market conditions and business objectives;
- Differentiate customers by market and sales channel;
- Effectively conduct real-time negotiations;
- Monitor pricing and revenue management performance; and
- Increase customer loyalty by providing the right products and services to the right customer at the right time.

Technology

Software Architecture. Our software architecture is based on open standards such as Java, HTML5, JavaScript, Flex, XML, and HTTP. We have created a component-based design in a service-oriented architecture to develop a flexible, layered framework. This framework supports parallel and independent evolution and innovation in technologies and product features.

Service-Oriented Architecture. A comprehensive web services interface is at the heart of our architecture. This interface enables extension onto other platforms and the creation of rich integrated solutions. It is also the foundation of our "PROS Everywhere" initiative to bring our solutions to the software (Microsoft Excel® and Microsoft SharePoint®) and hardware (Apple Inc.'s iPhone® and iPad®, Windows Phone®, BlackBerry®, and Android™ phones) tools that many businesses are already using.

Embedded Science. Our robust science-based capabilities such as forecasting, optimization, segmentation, and price guidance allow us to leverage the deep expertise and research of our science and research group in our solutions. These capabilities are industry-independent and are validated using our proprietary verification and testing processes.

Configuration vs. Custom Coding. Our solutions can be configured to meet each customer's business needs through configuration rather than custom code. The configuration capabilities define both a business layer (including definition of user workflows, executive dashboards, analytics views, calculations, approval processes and alerts), as well as a data layer that permits configuration of data structures, including hierarchical dimensions, pricing levels and measures. Much of the configuration can be performed by a business user without information technology personnel involvement. We preserve the configurations as part of an upgrade, allowing our customers to more easily upgrade to new versions of our solutions, when available.

Scalability. We leverage modern big data technologies such as MapReduce and Hadoop®, NoSQL databases such as Cassandra and MongoDB®, and in-memory and column-oriented data stores to scale to large data volumes and high user request rates. The scalability of our software solutions has been tested and validated by third-party vendor benchmark performance centers.

Data Integration. The data needed to execute and optimize sales, quoting, pricing, rebate and revenue management functionality typically resides in multiple sources, such as a company's enterprise resource planning ("ERP"), supply chain management ("SCM"), customer relationship management ("CRM"), reservations and inventory systems, and/or industry-specific transaction systems. In addition, productivity tools such as spreadsheets and external market data sources are common. Our data integration capabilities utilize web services and file-based data interfacing to bring data from disparate sources together into a single cohesive database, both in real time and through scheduled batch tasks. We also provide certified content for integration with SAP® and Oracle® as well as integration development services using industry standard tools.

User Interface. Our technology provides a rich, browser-based interface that supports both local and remote users. This interface supports a wide variety of interactive charts and other data views, and provides a comprehensive data security model

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based on user role and scope of responsibility. We also offer natively-developed capabilities for multiple mobile devices, tablet, CRM systems, and client applications.

Platform Support. Our software solutions run on most standard information technology platforms including Microsoft SQL Server and Oracle databases, 64-bit processors from Intel, AMD, IBM and Oracle, server hardware from HP, Dell, IBM and Oracle, the Windows, Linux, AIX and Solaris operating systems, and virtualization technologies such as VMware. Our solutions can be deployed on-premises in our customers' data centers or hosted in our private data centers. We also have solutions which are deployed natively in the Salesforce.com CRM environment and on Microsoft Windows Azure.

Services

We also provide software-related professional services, including implementation and configuration services, consulting and training.

Implementation and configuration

Our software solution implementations have a standardized and tested implementation process developed through years of experience implementing our software solutions in global enterprises across multiple industries. Our professional services team works closely with our customers to develop an integrated project plan to help them accelerate time to value. Pursuant to these plans, we provide technical deployment, integration, deployment support, and configuration services related to our solutions. We also assist customers in loading and validating data and supporting organizational activities to assist our customers' transition from awareness of their pricing challenges to adoption of pricing excellence best practices. In addition to our own internal professional services team, we also work with a team of globally diverse partners who have been certified to implement our software and are experienced in implementing PROS software solutions.

Consulting

Our consulting services include discovery and insight consulting to analyze a customer's current pricing processes and data, identifying and prioritizing specific high-value pricing opportunities, and recommending pricing best practices and strategic pricing services. We also offer change management, pricing process redesign, pricing organizational design, opportunity assessment and performance management consulting. These consulting services enhance our partnerships with our customers and help them achieve their specific pricing goals.

Training

We offer training to both our customers and partners to increase the knowledge and skills to deploy and use the full functionality of our software solutions. We offer an array of live and virtual classroom training, as well as tailored, private on-site classroom training. Our courses include training on all aspects of our software solutions, from introductory on-demand mini-courses to multi-day hands-on deep technical classroom sessions.

Maintenance and support

We offer ongoing maintenance and support services for our software solutions using a global model to support our customers across major geographies. Maintenance enrollment entitles a customer to solicit support through a web-based interface which allows the customer to submit and track issues, access our online knowledge base and receive unspecified upgrades, maintenance releases and bug fixes during the term of the support period on a when-and-if-available basis. In addition, our customer support personnel responds to customer issues promptly using an escalation process that prioritizes reported issues based on a defined set of severity levels, as well as assists customers in deploying our standard releases for each software solution by providing release web seminars and documentation. Maintenance fees are an important source of recurring revenue, and we invest significant resources in

providing these services. Revenue from maintenance and support services comprised 29%, 32%, and 34% of our total revenue in 2014, 2013 and 2012, respectively.

SaaS and Cloud-based services

Our SaaS offerings generally provide customers access to certain of our software within a cloud-based IT environment that we manage and offer to customers on a subscription basis and allow our customers to reduce infrastructure, installation, and ongoing administration requirements. We also offer cloud-based services to allow customers to deploy our big data software solutions without any significant investment in hardware. Our cloud-based services offerings provide customers who have already

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purchased licenses to our software to have access to that software within a cloud-based IT environment that we manage to allow those customers to reduce infrastructure, installation, and ongoing administration requirements. This model provides an alternative to an on-premise deployment for our customers. We generally offer these services via one to three year contracts with pricing based on the data volumes and service levels requested.

Customers

We sell our software solutions to customers across more than 40 industries, including agri-business, airlines, cargo, chemical, consumer goods, equipment rental, food, food service, high tech, hotels, industrial, medical, mill products, petroleum, and service parts. Our customers are generally large global enterprises, although we also have customers that are much smaller in scope of operations. In each of 2014, 2013 and 2012, we had no single customer that accounted for 10% or more of revenue.

Backlog

Our backlog is derived from agreements that we believe to be firm commitments to provide software solutions and related services in the future. Our backlog includes deferred revenue and can vary significantly from period to period depending on a number of factors including the timing of our sales and the nature of the agreements we enter into with our customers.

Our backlog is significantly based on estimates and judgments that we make regarding total contract values. For example, we have agreements that include non-standard provisions which require us to exercise judgment over the extent to which to include these agreements in our backlog. However, based on our history of successfully implementing our software solutions, we generally include the full estimated value of these agreements in backlog.

We make significant estimates and judgments regarding maintenance renewals and changes to existing maintenance and support agreements. Backlog includes committed maintenance and amounts under maintenance and support agreements that we reasonably expect to renew.

We compute our backlog as of a specific date, and we update our backlog to reflect changes in our estimates and judgments or subsequent additions, delays, terminations or reductions in our agreements. We also have agreements denominated in foreign currencies, and variation in currency exchange rates can influence our calculation of backlog. We compute backlog using then-existing currency exchange rates and we update backlog to reflect changes in these rates.

For these and other reasons, our backlog may not be a meaningful indicator of future revenue to be recognized in any particular quarter, and there can be no assurance that our backlog at any point in time will translate into revenue in any specific quarter.

We had backlog of approximately \$194.0 million as of December 31, 2014 as compared to backlog of approximately \$175.1 million as of December 31, 2013. The portion of our backlog as of December 31, 2014 not reasonably expected to be recognized as revenue within the next twelve months is estimated to be approximately \$57.5 million.

Sales and marketing

We sell and market our software solutions primarily through our direct global sales force and indirectly through resellers and systems integrators. Our sales force is organized by our target markets of manufacturing, distribution, services and travel, and is responsible for the worldwide sale of our solutions to new and existing customers. Our sales force works in concert with our solutions personnel for selling and providing solution demonstrations to new customers.

Our marketing activities consist of a variety of programs designed to generate sales leads and build awareness of our big data software solutions. We host conferences for sales, pricing, and revenue management professionals, host informational web seminars and participate in and sponsor other industry and trade conferences and organizations.

International operations

We are a global company that conducts sales, sales support, professional services, product development and support, and marketing around the world. Our headquarters are located in Houston, Texas, and, as of December 31, 2014, we also have offices in London, England; Paris, France; Toulouse, France; Munich, Germany; San Francisco, California; Skokie, Illinois; and Austin, Texas. We also conduct development activities predominantly in France and the United States, and utilize third-party contractors in Bolivia, China, Colombia and India. We plan to expand our operations in international locations to meet the strategic objectives of our business.

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Approximately 56%, 55%, and 56% of our total revenue came from customers outside the United States for the years ended December 31, 2014, 2013 and 2012, respectively. Our business, financial condition and results of operations could be adversely impacted by factors, including currency fluctuations or regulatory, political, social and economic developments or instability in the foreign jurisdictions in which we operate. For additional financial information about geographic areas, see Note 16 of the Notes to the Consolidated Financial Statements.

Seasonality

We tend to experience a higher volume of transactions in the quarter ended December 31, which is our fourth fiscal quarter, and to a lesser extent, during other fiscal quarters.

Competition

The market for big data applications that optimize sales, pricing, quoting, rebates, and revenue management is competitive, fragmented and rapidly evolving. For example, we believe the market for pricing software is converging with sales effectiveness software, as sales personnel are increasingly becoming the day to day users of both types of software. We have begun, and expect to continue, to compete with companies in sales enablement. In recent years, our competition has increased as we have expanded into adjacent technologies.

We believe our customers include the following factors when evaluating us against our competition:

- Large and referenceable global customer base;
- Industry domain expertise;
- Domain management best practices expertise and delivery;
- Ability for users to configure the solution to their needs;
- Depth of expertise in data and pricing science;
- Real-time solutions;
- Proven benefits of return on investment, total cost of ownership, and time-to-value;
- Organizational change management expertise;
- Product architecture, functionality, performance, reliability and scalability;
- Ability to offer integrated high-value solutions;
- Breadth and depth of product and service offerings;
- Services and customer support quality;
- Size and quality of partner ecosystem;
- Existing customer relationships; and
- Vendor viability.

We compete with a number of larger and smaller companies, which we estimate to be approximately 10 competitors. Most of our competitors compete against individual products of ours, rather than at a strategic level across multiple products. For example, Vendavo and Zilliant, compete against a portion of our pricing solutions. Others, such as Apttus, Oracle (through its acquisition of Big Machines), and SteelBrick compete against our sales effectiveness solutions. Yet others, such as Sabre Airline Solutions, Amadeus and Lufthansa Systems, compete against a portion of our big data solutions for revenue management in the airline industry. Several large enterprise application providers, such as JDA Software, Oracle and SAP, have developed offerings that include limited pricing and revenue management functionality. Our solutions also compete with solutions developed internally by businesses. These businesses generally rely on a combination of manual processes, external consultants, spreadsheets and internally-developed software tools.

We believe these competitors do not provide all of the functionality needed to support an organization interested in optimizing sales growth through data-driven pricing, rebates, quoting and revenue management. Some of these vendors have in the past, and may continue in the future, to compete on price and by bundling their pricing and

revenue management applications with other enterprise applications. We believe that we distinguish ourselves from these vendors through the breadth and depth of the functionality we offer, the robust integration and configuration capabilities of our solutions, and our proven ability to provide

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high-value science-based optimization software to our global customer base across multiple industries. In the future, we believe our competition will increase as more companies move into our market segment and as we expand into adjacent market segments.

Intellectual property and other proprietary rights

Our success and ability to compete is dependent in part on our ability to develop and maintain the proprietary aspects of our technology and operate without infringing upon the proprietary rights of others. Due to the rapidly changing nature of applicable technologies and recent changes in U.S. patent law, we believe that for the improvement of existing solutions and development of new solutions, reliance upon trade secrets and unpatented proprietary know-how are generally more advantageous than patent and trademark protection. We also rely on a combination of trade secrets, confidentiality procedures, contractual provisions, patents, trademarks, copyrights and other similar measures to protect our proprietary information.

Research and development

We believe our innovation with respect to our software solutions is a foundation of our business and accordingly have made substantial investments in research and development. We also believe that our long-term investment in the scientific analysis of pricing and revenue management differentiates us from our competitors. We are committed to developing high-value, science-based sales, pricing, and revenue management software solutions as evidenced by our continued investment in research and development. In fiscal 2014, 2013 and 2012, we recognized expenses of \$43.2 million, \$32.5 million and \$27.6 million, respectively, in research and development to enhance our existing portfolio of solutions and to develop new solutions. Our research and development expenses include costs associated with our product management, product development and science and research groups. We conduct research and development activities predominantly in the United States and to a lesser extent in France.

We employ scientists, most of whom are Ph.D.s, to advance sales, pricing, and revenue management technology and its implementation in our software solutions. These scientists have specialties including, but not limited to, operations research, management science, statistics, econometrics, and computational methods. Our scientists regularly interact with our customers, product development, sales, marketing, and professional services staff to help keep our science efforts relevant to real-world demands.

Employees

As of December 31, 2014, we had 1,011 full time personnel which included 793 employees and 218 outsourced personnel. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We have not experienced any work stoppages and consider our employee relations to be good.

Website

We maintain a website at www.PROS.com. No information on our website is incorporated by reference herein. We make available, free of charge through our website, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, including exhibits thereto, and any 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 the reports are electronically filed with or furnished to the SEC. Our reports that are filed with, or furnished to, the SEC are also available at the SEC's website at www.sec.gov. You may also read and copy any materials we file with the SEC, free of charge, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

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Annual CEO Certification

Pursuant to Section 303A.12(a) of the New York Stock Exchange ("NYSE") Listed Company Manual, we submitted to the NYSE an annual certification signed by our Chief Executive Officer certifying that he was not aware of any violation by us of NYSE corporate governance listing standards on June 6, 2014.

Item 1A. Risk Factors

We operate in a dynamic environment that involves numerous risks and uncertainties. The following section describes some of the risks that may adversely affect our business, financial condition or results of operations, and the trading price of our common stock; these risks are not necessarily listed in terms of their importance or level of risk.

Risks relating to our business and industry:

We may not be able to achieve our key initiatives and grow our business as anticipated.

While we currently intend to grow our business by pursuing key initiatives to broaden our product platform through internal development and acquisitions; increase our sales capacity by expanding our direct sales organization and developing our channel partnerships; expand our scale through system integrators; and employ marketing programs to increase awareness of our company and our big data products among existing and prospective customers, we may not be able to achieve these key initiatives. Our success depends on our ability to: appropriately manage our expenses as we grow our organization; identify or acquire companies or assets at attractive valuations; enter into and maintain beneficial channel relationships; develop new products; and successfully execute our marketing and sales strategies. If we are not able to execute on these actions, our business may not grow as we anticipate, and our operating results could be adversely affected.

As we expand our software product portfolio, we could face increased competition as part of entering new markets.

The market for our products is competitive, and we expect competition to increase in the future as we expand our product portfolio and features. We may not compete successfully against future potential competitors, especially those with significantly greater financial resources or brand name recognition. For example, we now compete with sales enablement, configure-price-quote and to a lesser extent, rebate management software. Large companies in these spaces may have advantages over us because of their greater brand name recognition, larger customer bases, broader product portfolios, larger distribution channels, or greater financial, technical and marketing resources. As a result, they may be able to adapt more quickly to new or emerging technologies and changes in customer requirements.

If our new products and product enhancements do not achieve sufficient market acceptance, our results of operations and competitive position could suffer.

We spend substantial amounts of time and money to enhance of our existing products, as well as to research and develop new products. We introduce new products and incorporate additional features, improve functionality or add other enhancements to our existing products in order to meet our customers' demands. Our new products or enhancements could fail to attain sufficient market acceptance for many reasons, including:

- delays in introducing new, enhanced or modified products;
- defects, errors or failures in any of our products;
- inability to operate effectively with the networks of our prospective customers;
- inability to protect against new types of attacks or techniques used by hackers;

- negative publicity about the performance or effectiveness of our network security products;
- reluctance of customers to purchase products based on open source software; and
- disruptions or delays in the availability and delivery of our products.

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If our new products or enhancements do not achieve adequate acceptance in the market, our competitive position could be impaired, our revenue could be diminished and the effect on our operating results may be particularly acute because of the significant research and development, marketing, sales and other expenses we incurred in connection with the new product.

We focus primarily on big data sales, pricing and revenue management software, and if the markets for this software develop more slowly than we expect, our business could be harmed.

We derive most of our revenue from providing our sales, pricing and revenue management software solutions, implementation services and ongoing customer support. The sales and pricing market is evolving rapidly, and it is uncertain whether this software could achieve and sustain high levels of demand and market acceptance. Our success would depend on the willingness of businesses in the manufacturing, distribution, services industries to use sales and pricing software.

Some businesses may be reluctant or unwilling to implement sales and pricing software for a number of reasons, including failure to understand the potential returns of improving their processes and lack of knowledge about the potential benefits that such software may provide. Even if businesses recognize the need for improved sales and/or pricing processes, they may not select our solutions because they previously have made investments in internally developed solutions. Some businesses may elect to improve their pricing processes through solutions obtained from their existing enterprise software providers, whose solutions are designed principally to address functional areas other than pricing. These enterprise solutions may appeal to customers that wish to limit the number of software vendors on which they rely and the number of different types of solutions used to run their businesses.

If businesses do not embrace the benefits of sales and pricing software, the sales and pricing software market may not continue to develop or may develop more slowly than we expect, either of which would significantly and adversely affect our revenue and operating results. Because the sales and pricing software market is developing and the manner of its development is difficult to predict, we may make errors in predicting and reacting to relevant business trends, which could harm our operating results.

Competition from vendors of big data sales, pricing, revenue management and configure-price-quote solutions and enterprise applications as well as from companies internally developing their own solutions could adversely affect our ability to sell our solutions and could result in pressure to price our solutions in a manner that reduces our margins and harms our operating results.

The sales, pricing, revenue management and configure-price-quote software market is competitive and rapidly evolving. Our software solutions compete with both solutions developed internally by businesses as well as those solutions offered by competitors. We believe our principal competition consists of:

- pricing, quoting, rebate and revenue management software vendors, including a number of vendors that provide such software for specific industries; and
- large enterprise application providers that have developed offerings that include sales, pricing and revenue management functionality.

We expect additional competition from other established and emerging companies to the extent the sales, pricing, revenue management and configure-price-quote software market continues to develop and expand. We also expect competition to increase as a result of the entrance of new competitors in the market and industry consolidation, including through a merger or partnership of two or more of our competitors or the acquisition of a competitor by a larger company, such as Oracle through its acquisition of BigMachines. A number of our current and potential competitors have larger installed bases of users, longer operating histories, broader distribution and greater name recognition than we have. In addition, many of these companies have significantly greater resources than we have. As

a result, these companies may be able to respond more quickly to new or emerging technologies and changes in customer demands and devote greater resources to the development, promotion and sale of their products.

Competition could seriously impede our ability to sell our software solutions and services on terms favorable to us. We do not know how our competition could set prices for their products. Businesses may internally develop solutions, rather than invest in commercially-available solutions. Our current and potential competitors may develop and market new technologies that render our existing or future solutions obsolete, unmarketable or less competitive. In addition, if these competitors develop solutions with similar or superior functionality to our solutions, or if they offer solutions with similar functionality at a substantially lower price than our solutions, we may need to decrease the prices for our solutions in order to remain competitive. If we are unable to maintain our current solutions, services and maintenance pricing due to competitive pressures, our margins could be reduced and our operating results could be adversely affected. We cannot provide assurance that we would be able to compete successfully against current or future competitors or that competitive pressures could not materially and adversely affect our business, financial condition and operating results.

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If our security measures are breached and unauthorized access is obtained to a customer's data or our data or our IT systems, our solutions may be perceived as not being secure, customers may curtail or stop using our solutions and/or we may incur significant legal and financial exposure and liabilities.

Our solutions and services involve the storage, and to a more limited extent, the transmission of our customers' proprietary information. Despite the implementation of security measures, these systems may still be vulnerable to data theft, computer viruses, malicious software programs, programming errors, attacks by third parties or similar disruptive problems, and could result in someone obtaining unauthorized access to our customers' data or our data, including our intellectual property and other confidential business information, or our IT systems. Because the techniques used to compromise systems change frequently and may not be recognized until launched, we may be unable to anticipate these techniques or to implement adequate preventative measures. Malicious third-parties may also conduct attacks designed to temporarily deny customers access to our services. Any security breach could result in a loss of confidence in the security of our solutions and services, damage our reputation, negatively impact our future sales, disrupt our business, increase our information security costs, and lead to legal liability.

We are subject to a lengthy sales cycle and delays or failures to complete sales may harm our business and cause our revenue and operating income to decline in the future.

Our sales cycle may take several months to over a year. To sell our solutions successfully and obtain an executed contract, we often have to educate our potential customers about the benefits of our solutions. We expend substantial resources during our sales cycles with no assurance that a sale may ultimately result. The length of each individual sales cycle depends on many factors, a number of which we cannot control. These factors include the customer's requirements, the level of competition we face for that customer's business, and the customer's internal approval processes. Any unexpected lengthening of the sales cycle or failure to secure anticipated orders could negatively affect our revenue. Furthermore, a delay in our ability to obtain a signed agreement or to complete certain contract requirements in a particular quarter could materially reduce our revenue in that quarter. Any significant failure to generate revenue or delays in recognizing revenue after incurring costs related to our sales or services process could also have a material adverse effect on our business, financial condition and results of operations.

Any unauthorized, and potentially improper, actions of our personnel could adversely affect our business, operating results and financial condition.

The recognition of our revenue depends on, among other things, the terms negotiated in our contracts with our customers. Our personnel may act outside of their authority and negotiate additional terms without our knowledge. We have implemented policies to help prevent and discourage such conduct, but there can be no assurance that such policies would be followed. For instance, in the event that our sales personnel negotiate terms that do not appear in the contract and of which we are unaware, whether such additional terms are written or verbal, we could be prevented from recognizing revenue in accordance with our plans. Furthermore, depending on when we learn of unauthorized actions and the size of the transactions involved, we may have to restate revenue for a previously reported period, which could seriously harm our business, operating results and financial condition.

We made our first two acquisitions in late 2013 and early 2014, and in the future may continue to enter into acquisitions that may be difficult to integrate, fail to achieve our strategic objectives, disrupt our business, dilute stockholder value or divert management attention.

We made our first two acquisitions in late 2013 and early 2014, and in the future may continue to acquire businesses, technologies and products that we intend to complement our existing business, solutions, services and technologies. We cannot provide assurance that the acquisitions we have made or may make in the future could provide us with the benefits or achieve the results we anticipated when entering into the transaction. Acquisitions are typically accompanied by a number of risks, including:

- difficulties in integrating the operations and personnel of the acquired companies;
- difficulties in maintaining acceptable standards, controls, procedures and policies, including integrating financial reporting and operating systems, particularly with respect to foreign and/or public subsidiaries;
- disruption of ongoing business and distraction of management;
- inability to maintain relationships with customers of the acquired business;
- impairment of relationships with employees and customers as a result of any integration of new management and other personnel;
- difficulties in incorporating acquired technology and rights into our solutions and services;
- unexpected expenses resulting from the acquisition; and

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potential unknown liabilities associated with the acquisition.

In addition, we may incur debt, acquisition-related costs and expenses, restructuring charges and write-offs as a result of acquisitions. Acquisitions may also result in goodwill and other intangible assets that are subject to impairment tests, which could result in future impairment charges.

Our recent acquisitions have required, and may continue to require, significant management time and attention during the finalization of the integration processes.

We may enter into negotiations for acquisitions that are not ultimately consummated. Those negotiations could result in diversion of management time and significant out-of-pocket costs. If we fail to evaluate and execute acquisitions successfully, we may not be able to achieve our anticipated level of growth and our business and operating results could be adversely affected.

If we are not able to manage our anticipated growth effectively, our operating costs could increase and our operating margins could decrease.

We have grown our infrastructure to build out our offerings as well as to accommodate our acquisitions and expect to continue to grow our infrastructure to ensure that our current and future offerings remain competitive as well as to address other potential additional business combinations. Our growth may place, to the extent that we are able to sustain such growth, a strain on our management, administrative, operational and financial infrastructure. If we continue to grow our operations, we may not be effective in enlarging our physical facilities, systems, procedures and internal controls may not be adequate to support such expansion. If we are unable to manage our growth, our operating costs could increase and our operating margins could decrease.

Any downturn in sales to our target markets could adversely affect our operating results.

Our success is highly dependent upon our ability to sell our software solutions to customers in the manufacturing, distribution, services, and travel industries. If we are unable to sell our software solutions effectively to customers in these industries, we may not be able to grow our business. It is uncertain whether our software solutions may achieve and sustain the levels of demand and market acceptance that we anticipate. Such uncertainty is attributable to, among other factors, the following:

- it may be more difficult than we currently anticipate to implement our software solutions in certain verticals within our target industries;

- it may be more difficult than we currently anticipate to increase our customer base in our target industries; and
- our limited experience implementing our software solutions in certain verticals within our target industries.

Our revenue growth has historically been derived from customers in many major industries. Our revenue growth is highly dependent upon continued growth of market acceptance in these industries, and there can be no assurance our solutions may achieve or sustain widespread acceptance among customers in these industries. Failure to expand market acceptance of our solutions or maintain sales in these industries could adversely affect our operating results and financial condition.

Our software solutions require implementation projects that are subject to significant risks and delays, which if any occurred could negatively impact the effectiveness of our software, resulting in harm to our reputation, business and financial performance.

The implementation of our software solutions can involve complex, large-scale projects that require substantial support operations, significant resources and reliance on factors that are beyond our control. For example, the success of our implementation projects is heavily dependent upon the quality of data used by our software solutions, the commitment of customers' resources and personnel to the projects, and the stability, functionality and scalability of the

customer's information technology infrastructure. We may not be able to correct or compensate for weaknesses or problems in infrastructure or data, or any lack of our customers' commitment and investment in personnel and resources. In addition, implementation of our software solutions can be highly complex and require substantial efforts and cooperation on the part of our customers. If we are unable to successfully manage the implementation of our software solutions such that those products do not meet customer needs or expectations, we may become involved in disputes with our customers and our business, reputation and financial performance may be significantly harmed. For projects accounted for under the percentage-of-completion method, we recognize our license and implementation revenues as implementation services are performed. Any delays in an implementation project or changes in the scope or timing of an implementation project would delay or alter the corresponding revenue recognition and could adversely affect our operating results. In addition, any delays or changes in scope could result in estimated project costs exceeding contracted revenue of which a loss reserve would need to be established which would have an adverse effect on our operating results. If an implementation

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project for a large customer or a number of customers is substantially delayed or canceled, our ability to recognize the associated revenue and our operating results could be adversely affected.

If our executives and other key personnel are unable to effectively manage our business, or if we fail to attract additional qualified sales, marketing, professional services, product development and other personnel, our revenue and operating results could be adversely affected.

Our future success depends upon the performance and service of our executive officers and other key sales, marketing, development, science and professional services staff. The failure of our executives and key personnel to effectively manage our business or the loss of the services of our executive officers and other key personnel would harm our operations. In addition, our future success could depend in large part on our ability to attract and retain a sufficient number of highly qualified sales, marketing, professional services, product development and other personnel, and there can be no assurance that we may be able to do so. We have continued to add a significant number of new personnel to support our continued growth, and their ability to learn our business and manage it effectively could be important to our continued growth and expansion. In addition, given the highly sophisticated data science included in our solutions, the pool of data scientists and software developers qualified to work on our solutions is limited. The implementation of our software solutions requires highly-qualified personnel, and hiring and retaining such personnel to support our growth may be challenging. Competition for such qualified personnel is intense, and we compete for these individuals with other companies that have greater financial, technical, marketing, service and other resources than we do. If our key personnel are unable to effectively manage our business, or if we fail to attract additional qualified personnel, our operating results could be adversely affected.

Deterioration of general U.S. and global economic conditions could adversely affect our sales and operating results.

We are a global company with customers around the world. Global financial markets have experienced extreme disruption in recent years, including, among other factors, extreme volatility in security prices, limited ability to raise capital in public and private financial markets, severely diminished liquidity, credit unavailability and company rating downgrades. These conditions have a negative impact on our prospects' and customers' ability to raise capital and operate their businesses.

The implementation of our software solutions, which are often accompanied by third-party hardware purchases and other capital commitments, can involve significant capital expenditure by our customers. Customers may reduce or defer their spending on technology. Customers may also elect to purchase our solutions via SaaS or term licenses, which could adversely impact our liquidity and/or result in the deferral of revenue over the contractual service period. In addition, the weak and uncertain U.S. and global economic conditions could impair our customers' ability to pay for our products or services. Any of these factors could delay our revenue recognition or otherwise adversely impact our business overall results and financial condition.

Periodic fluctuations in the U.S. Dollar and other currencies, corporate profits, lower spending, the impact of conflicts throughout the world, terrorist acts, natural disasters, volatile energy costs, the outbreak of diseases and other geopolitical factors have had, and may continue to have, a negative impact on the U.S. and global economies. We are unable to predict the strength, duration or impact of current market conditions.

A significant or prolonged economic downturn in industries in which we focus may result in our customers or prospects reducing or postponing spending on the solutions we offer.

There are a number of factors, other than our performance, that could affect the size, frequency and renewal rates of our customer contracts. For instance, if economic conditions weaken in any industry in which our customers or prospects are focused, our customers or prospects may reduce or postpone their spending significantly which may, in turn, lower the demand for our solutions and negatively affect our revenue and profitability. As a way of dealing with a challenging economic environment, customers may change their purchasing strategies, including, in some instances,

requesting term licenses or SaaS agreements as opposed to perpetual license agreements, increased negotiation of price, deciding to license one solution rather than multiple solutions or licensing solutions for portions of their business. Customers could also terminate or delay their implementations or maintenance contracts. Change in license terms or the loss of, or any significant decline in business from, our customers may lead to a significant decline in our revenue and operating margins, particularly if we are unable to make corresponding reductions in our expenses in the event of any such loss or decline. Moreover, a significant change in the liquidity or financial position of our customers could have a material adverse effect on the collectability of our accounts receivable, liquidity and future operating results.

We incurred indebtedness by issuing Senior notes, and our debt repayment obligations may adversely affect our financial condition and cash flows from operations in the future.

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In December 2014, we issued \$143.8 million aggregate principal amount of 2.0% convertible senior notes (the "Senior Notes") due December 1, 2019, unless earlier purchased or converted. Interest is payable semiannually in arrears on June 1 and December 1 of each year, commencing on June 1, 2015. Our indebtedness could have important consequences because it may impair our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions and general corporate or other purposes, and a portion of our cash flows from operations may have to be dedicated towards repaying the principal beginning in 2019 or earlier if necessary.

Our ability to meet our debt obligations will depend on our future performance, which will be affected by financial, business, economic, regulatory and other factors. We cannot control many of these factors. Our future operations may not generate sufficient cash to enable us to repay our debt. If we fail to make a payment on our debt, we could be in default on such debt. If we are at any time unable to pay our indebtedness when due, we may be required to renegotiate the terms of the indebtedness, seek to refinance all or a portion of the indebtedness or obtain additional financing. There can be no assurance that, in the future, we will be able to successfully renegotiate such terms, that any such refinancing would be possible or that any additional financing could be obtained on terms that are favorable or acceptable to us.

A weakening economy and changing business conditions could result in substantial defaults or slowing of payments by our customers on our accounts receivable which could have a significant negative impact on our business, results of operations, financial condition or liquidity.

A significant portion of our working capital consists of accounts receivable from customers. If customers responsible for a significant amount of accounts receivable were unable to pay for solutions and services, or were to become unwilling or unable to make payments in a timely manner, our business, results of operations, financial condition or liquidity could be adversely affected.

Our revenues, and in particular our software license revenues, vary each quarter and are difficult to predict.

Revenues from license fees in any quarter depend substantially upon our licensing activity with new and existing customers, and our ability to recognize revenues in that quarter under our revenue recognition policies. A delay or deferral in a small number of new software license transactions could cause our quarterly license revenue to fall significantly short of our expectations.

The period over which we recognize license and implementation revenue for each customer depends on a variety of factors, including the number of licensed software solutions and the scope and complexity of the customer's deployment requirements. As a result, a majority of our revenue is recognized on arrangements that were executed in previous periods. Any shortfall in new sales of our software solutions may not be reflected in our revenue for several quarters, and as such the adverse impact on our business may not be readily apparent.

For projects accounted for on a percentage-of-completion method, our revenue recognition is primarily based upon our ability to estimate the efforts required to complete our implementation projects, which may be difficult to estimate.

Timing of revenue recognition on our contractual arrangements varies based on the nature of the performance obligations in each contract and the associated contract terms. For projects accounted for on a percentage-of-completion method, our ability to estimate the effort required to complete our implementation may be difficult to estimate.

Changes in accounting principles or standards, or in the way they are applied, could result in unfavorable accounting charges or effects and unexpected financial reporting fluctuations, and could adversely affect our reported operating results.

We prepare our consolidated financial statements in conformity with U.S. GAAP. These principles are subject to interpretation by the Securities and Exchange Commission ("SEC") and various bodies formed to interpret and create appropriate accounting principles and guidance. A change in existing principles, standards or guidance, in particular those related to revenue recognition, can have a significant effect on our reported results, may retroactively affect previously reported results, could cause unexpected financial reporting fluctuations, and may require us to make costly changes to our operational processes and accounting systems.

The Financial Accounting Standards Board ("FASB") is currently working with the International Accounting Standards Board ("IASB") to converge certain accounting principles and to facilitate more comparable financial reporting between companies that are required to follow U.S. GAAP and those that are required to follow International Financial Reporting Standards ("IFRS"). These projects may result in different accounting principles under U.S. GAAP, which may have a material impact on the way in which we report financial results in areas including, but not limited to, principles for recognizing revenue, lease accounting, and financial statement presentation. In connection with this initiative, the FASB issued a new accounting standard for revenue

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recognition in May 2014 – Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers (Topic 606)" – that supersedes nearly all existing U.S. GAAP revenue recognition guidance. Although we are currently in the process of evaluating the impact of ASU 2014-09 on our consolidated financial statements, it could change the way we account for certain of our sales transactions. Adoption of the standard could have a significant impact on our financial statements and may retroactively affect the accounting treatment of transactions completed before adoption.

In addition, the SEC may make a determination in the future regarding the incorporation of IFRS into the financial reporting system for U.S. companies. Changes in accounting principles from U.S. GAAP to IFRS, or to converged accounting principles, may have a material impact on our financial statements and may retroactively affect the accounting treatment of previously reported transactions.

Failure to sustain our historical maintenance, support, and subscription renewal rates and pricing would adversely affect our operating results.

Maintenance, support, and subscription agreements are typically for a term of one to three years. Historically, maintenance and support revenue has represented a significant portion of our total revenue, including approximately 29%, 32% and 34% of our total revenue for the years ended December 31, 2014, 2013 and 2012, respectively. Subscription revenue has represented approximately 13%, 6% and 8% of our total revenue for the years ended December 31, 2014, 2013 and 2012, respectively. If our customers choose not to renew their maintenance, support and subscription agreements with us on favorable terms or at all, our business, operating results and financial condition could be harmed.

We might not generate increased business from our customers, which could limit our revenue in the future.

We sell our software solutions to both new customers and existing customers. Many of our existing customers initially purchase our software solutions for a specific business segment or a specific geographic location within their organization and later purchase additional software solutions for the same or other business segments and geographic locations within their organization. These customers might not choose to make additional purchases of our software solutions or to expand their existing software solutions to other business segments. In addition, as we deploy new applications and features for our software solutions or introduce new software solutions, our current customers could choose not to purchase these new offerings. If we fail to generate additional business from our existing customers, our revenue could grow at a slower rate or even decrease.

If our cost estimates for fixed-fee arrangements do not accurately anticipate the cost and complexity of implementing our software solutions, our profitability could be reduced and we could experience losses on these arrangements. Historically, a portion of our implementation arrangements were priced on a fixed-fee basis, and we may price implementation arrangements on a fixed-fee basis in the future. If we underestimate the amount of effort required to implement our software solutions under these fixed-fee arrangements, our profitability could be reduced. Moreover, if the actual costs of completing the implementation exceed the agreed upon fixed price, we could incur a loss on the arrangement.

If we fail to develop or acquire new functionality to enhance our existing software solutions, we may not be able to grow our business and it could be harmed.

The sales, pricing and revenue management software market is characterized by:

- rapid technological developments;
- newly emerging and changing customer requirements; and
- frequent solution introductions, updates and functional enhancements.

We must introduce enhancements to our existing software solutions in order to meet our business plan, maintain or improve our competitive position, keep pace with technological developments, satisfy increasing customer requirements and increase awareness of big data software for sales, pricing and revenue management generally and of our software solutions in particular. Any new functionality we develop may not be introduced in a timely manner and may not achieve market acceptance sufficient to generate material revenue. Furthermore, we believe that our

competitors are heavily investing in research and development, and may develop and market new solutions that may compete with, and may reduce the demand for, our software solutions. We cannot provide assurance that we could be successful in developing or otherwise acquiring, marketing and licensing new functionality, or delivering updates and upgrades that meet changing industry standards and customer demands. In addition, we may experience difficulties that could delay or prevent the successful development, marketing and licensing of such functionality. If we are unable to develop or acquire new functionality, enhance our existing software solutions or adapt to changing industry requirements to meet market demand, we may not be able to grow our business and our revenue and operating results would be adversely affected.

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In addition, because our software solutions are intended to operate on a variety of technology platforms, we must continue to modify and enhance our software solutions to keep pace with changes in these platforms, as well as develop and maintain relationships with platform providers. Any inability of our software solutions to operate effectively with existing or future platforms, or our inability to develop or maintain relationships with significant platform providers, could reduce the demand for our software solutions, result in customer dissatisfaction and limit our revenue.

Our big data software solutions require hardware to operate which may be difficult for our customers to obtain.

The implementation of our big data software solutions often requires specific hardware to operate. The inability of our customers' to access and secure such hardware could impact the effectiveness of our software and result in harm to our reputation if the software does not operate properly due to the unavailability of the necessary hardware. If businesses do not implement our software due to their inability to obtain the hardware needed for our software, our business, results of operations and financial condition could be adversely affected.

Defects or errors in our software solutions could harm our reputation, impair our ability to sell our solutions and result in significant costs to us.

Our software solutions are complex and may contain undetected defects or errors. Several of our solutions have recently been developed and may therefore be more likely to contain undetected defects or errors. In addition, we frequently develop enhancements to our software solutions that may contain defects. We have not suffered significant harm from any defects or errors to date. We have in the past issued, and may in the future need to issue, corrective releases of our solutions to correct defects or errors, but we may not be able to detect and correct any such defects or errors before the final implementation of our software solutions. The occurrence of any defects or errors could result in:

- delayed market acceptance and lost sales of our software solutions;
- delays in payment to us by customers;
- injury to our reputation;
- diversion of our resources;
- legal claims, including product liability claims, against us;
- increased maintenance and support expenses; and
- increased insurance costs.

Our license agreements with our customers typically contain provisions designed to limit our liability for defects and errors in our software solutions and damages relating to such defects and errors, but these provisions may not be enforced by a court or otherwise effectively protect us from legal claims. Our liability insurance may not be adequate to cover all of the costs resulting from these legal claims. Moreover, we cannot provide assurance that our current liability insurance coverage would continue to be available on acceptable terms. In addition, the insurer may deny coverage on any future claims. The successful assertion against us of one or more large claims that exceeds available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business and operating results. Furthermore, even if we prevail in any litigation, we are likely to incur substantial costs and our management's attention may be diverted from our operations.

Intellectual property litigation and infringement claims may cause us to incur significant expense or prevent us from selling our software solutions.

Our industry is characterized by the existence of a large number of patents, trademarks and copyrights, and by frequent litigation based on allegations of infringement or other violations of intellectual property rights. A third-party may assert that our technology violates its intellectual property rights, or we may become the subject of a material intellectual property dispute. Sales, pricing and revenue management solutions may become increasingly subject to infringement claims as the number of commercially available sales, pricing and revenue management solutions

increases and the functionality of these solutions overlaps. In addition, changes in patent laws in the U.S. may affect the scope, strength and enforceability of our patent rights or the nature of proceedings which may be brought by us related to our patent rights. Future litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own potential patents may therefore provide little or no deterrence. Regardless of the merit of any particular claim that our technology violates the intellectual property rights of others, responding to such claims may require us to:

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incur substantial expenses and expend significant management efforts to defend such claims;
pay damages, potentially including treble damages, if we are found to have willfully infringed such parties' patents or copyrights;
cease making, licensing or using products that are alleged to incorporate the intellectual property of others;
distract management and other key personnel from performing their duties for us;
enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies; and
expend additional development resources to redesign our solutions.

Any licenses required as a result of litigation under any patent may not be made available on commercially acceptable terms, if at all. In addition, some licenses may be nonexclusive, and therefore our competitors may have access to the same technology licensed to us. If we fail to obtain a required license or are unable to design around a patent, we may be unable to effectively develop or market our solutions, which could limit our ability to generate revenue or maintain profitability.

Contract terms generally obligate us to indemnify our customers for their use of the intellectual property associated with our software or for other third-party products that are incorporated into our solutions and that infringe the intellectual property rights of others. If we are unable to resolve our legal obligations by settling or paying an infringement claim or a related indemnification claim as described above, we may be required to compensate our customers under the contractual arrangement with such customers. Some of our intellectual property indemnification obligations are contractually capped at a very high amount or not capped at all.

If we fail to protect our proprietary rights and intellectual property adequately, our business and prospects may be harmed.

Our success could depend in part on our ability to protect our proprietary methodologies and intellectual property. We rely upon a combination of trade secrets, confidentiality policies, nondisclosure and other contractual arrangements, and patent, copyright and trademark laws to protect our intellectual property rights. We cannot, however, be certain that steps we take to protect our proprietary rights could prevent misappropriation of our intellectual property, or the development and marketing of similar and competing products and services by third parties.

We rely, in some circumstances, on trade secrets to protect our technology. Trade secrets, however, are difficult to protect. In addition, our trade secrets may otherwise become known or be independently discovered by competitors, and in such cases, we could not assert such trade secret rights against such parties. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements with our employees, consultants, customers, scientific advisor's and other contractors. These agreements may be breached, and we may not have adequate remedies for any such breach. To the extent that our employees, consultants or contractors use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. The patent position of technology-oriented companies, including ours, is generally uncertain and involves complex legal and factual considerations. The standards that the United States Patent and Trademark Office use to grant patents are not always applied predictably or uniformly and can change. Accordingly, we do not know the degree of future protection for our proprietary rights or the breadth of claims allowed in any patents that may be issued to us or to others. Our patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products, or provide us with any competitive advantage. Moreover, our patents and any patent for which we have licensed or may license rights may be challenged, narrowed, invalidated or circumvented. If our patents are invalidated or otherwise limited, other companies may be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. Any patent application we submit may not result in an issued patent. Patent applications in the U.S. are typically not published until at least 18 months after filing or in some cases not at all, and publications of discoveries in industry-related literature lag behind actual discoveries. We cannot be certain that we were the first to invent the

technologies claimed in any pending patent applications or that we were the first to file for patent protection. 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. As a result, we may not be able to obtain adequate patent protection.

In addition, despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. The issuance of a patent does not guarantee that it is valid or enforceable. As such, even

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if we obtain patents, they may not be valid or enforceable against third parties. In addition, the issuance of a patent does not guarantee that we have a right to practice the patented invention. Third parties may have blocking patents that could be used to prevent us from marketing or practicing our potentially patented products. As a result, we may be required to obtain licenses under these third-party patents. If licenses are not available to us on acceptable terms, or at all, we may not be able to make and sell our software solutions and competitors would be more easily able to compete with us.

We use open source software in our solutions that may subject our software solutions to general release or require us to re-engineer our solutions, which may cause harm to our business.

We use open source software in our solutions and may use more open source software in the future. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their products. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the open source software and that we license such modifications or derivative works under the terms of a particular open source license or other license granting third parties certain rights of further use. If we combine our proprietary software solutions with open source software in a certain manner, we could, under certain of the open source licenses, be required to release the source code of our proprietary software solutions. In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensor's generally do not provide warranties or controls on origin of the software. In addition, open source license terms may be ambiguous and many of the risks associated with usage of open source cannot be eliminated, and could, if not properly addressed, negatively affect our business. If we were found to have inappropriately used open source software, we may be required to seek licenses from third parties in order to continue offering our software, to re-engineer our solutions, to discontinue the sale of our solutions in the event re-engineering cannot be accomplished on a timely basis or take other remedial action that may divert resources away from our development efforts, any of which could adversely affect our business, operating results and financial condition.

We utilize third-party software that we incorporate into our software solutions, and impaired relations with these third parties, defects in third-party software or a third party's inability or failure to enhance their software over time could adversely affect our operating performance and financial condition.

We incorporate and include third-party software into our software solutions. If our relations with any of these third parties are impaired, or if we are unable to obtain or develop a replacement for the software, our business could be harmed. The operation of our solutions could be impaired if errors occur in the third-party software that we utilize. It may be more difficult for us to correct any defects in third-party software because the software is not within our control. Accordingly, our business could be adversely affected in the event of any errors in this software. There can be no assurance that these third parties may continue to invest the appropriate levels of resources in their products and services to maintain and enhance the capabilities of their software.

Our international sales, and the growth of our international operations, subject us to risks that may adversely affect our operating results.

International operations are subject to risks associated with operating outside of the United States. We may not be able to maintain or increase international market demand for our solutions. For the year ended December 31, 2014, 2013 and 2012, approximately 56%, 55% and 56% of our total revenue, respectively, was derived from outside the United States. We have customers in over 55 countries, and have operations in the United Kingdom, France and Germany (through wholly-owned subsidiaries). The financial impact of our international operations to our overall business has been insignificant to date. We expect our international operations to grow as the result of acquiring Cameleon in 2014. Managing overseas growth could require significant resources and management attention and may subject us to new or larger levels of regulatory, economic, foreign currency exchange, tax and political risks. Among the risks we believe are most likely to affect us with respect to our international sales and operations are:

- economic conditions in various parts of the world;

- unexpected changes in regulatory requirements;
- less protection for intellectual property rights in some jurisdictions;
- new and different sources of competition;
- costs of compliance and penalties for noncompliance with foreign laws and laws applicable to companies doing business in foreign jurisdictions;
- multiple, conflicting and changing tax laws and regulations that may affect both our international and domestic tax liabilities and result in increased complexity and costs;

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the difficulty of managing and staffing our international operations and the increased travel, infrastructure and legal compliance costs associated with multiple international locations;
difficulties in enforcing contracts and collecting accounts receivable, especially in developing countries;
fluctuations in exchange rates; and
tariffs and trade barriers, import and export controls and other regulatory or contractual limitations on our ability to sell or develop our solutions in certain foreign markets.

If we continue to expand our business globally, our success could depend, in large part, on our ability to anticipate and effectively manage these and other risks associated with our international operations. Our failure to manage any of these risks successfully could harm our international operations and reduce our international sales, adversely affecting our business, operating results and financial condition. To date, the majority of our sales have been denominated in U.S. dollars, although the majority of our expenses that we incur in our international operations are denominated in local currencies. To date, we have not used risk management techniques or "hedged" the risks associated with fluctuations in foreign currency exchange rates. As a result, our results of operations and financial condition, including our revenue and operating margins, are subject to losses from fluctuations in foreign currency exchange rates.

Our cloud and other new offerings bring new business and operational risks.

We have introduced new products and technology initiatives in the area of cloud computing. We include in this category our SaaS offerings. Our SaaS offerings provide our customers with existing and new software management through a hosted service as opposed to traditional software deployments. There can be no assurance that SaaS revenue may be significant in the future despite our investment. There is a risk that our SaaS offerings may reduce demand for licenses and maintenance of our traditional software products which could impact our financial performance in any given quarter. There is also a risk that our internal development and customer support teams could find it difficult or costly to support both traditional software installed by customers and software delivered as a service. In addition, interruptions or delays in service from our third-party service delivery hosts could impair the delivery of our services and harm our business. In the cloud, our products may be dependent upon third-party hardware, software and cloud hosting vendors, all of which must inter-operate for end users to achieve their computing goals. Additionally, operating margins on our new initiatives may be lower than those we have achieved in our more mature product markets, and our new initiatives may not generate sufficient revenue to recoup our investments in them. If any of these events were to occur, it could adversely affect our business, results of operations and financial condition.

Our operations might be affected by the occurrence of a natural disaster or other catastrophic event.

Our headquarters are located in Houston, Texas, from which we base our operations. We also conduct business in other domestic and international locations. Although we have contingency plans in effect for natural disasters or other catastrophic events (including terrorist attacks and hurricanes), these events could disrupt our operations. Even though we carry business interruption insurance and typically have provisions in our contracts that protect us in certain events, we might suffer losses as a result of business interruptions that exceed the coverage available under our insurance policies or for which we do not have coverage. Even a temporary disruption to our business operations may create a negative perception in the marketplace. Any natural disaster or catastrophic event affecting us could have a significant negative impact on our operations.

The expiration of the research and experimentation tax credit could have a negative impact on our business, results of operations, financial condition or liquidity.

Our federal effective tax rate historically has been lower than the statutory rate of 34% largely due to tax credit incentives under the U.S. research and experimentation tax credit extended to taxpayers engaged in qualified research and experimental activities. This tax credit is designed to stimulate qualifying company research and development over time by reducing after-tax costs. By qualifying for the tax credit, we have been able to use general business tax credits to reduce our federal income tax liability. Since its enactment in 1981, Congress has reinstated on a retroactive basis the research and experimentation tax credit several times. Cancellation of this research and experimentation tax credit could record federal income taxes at the enacted federal rate of 34%, without the benefit of this tax credit.

We incur significant costs as a result of operating as a public company, and our management is required to devote substantial time to compliance initiatives.

As a public company, we incur significant legal, accounting and other expenses. The Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley") and the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), and rules currently proposed or subsequently implemented by the SEC and NYSE impose heightened requirements on public companies. Our management and other personnel devote a substantial amount of time to these compliance initiatives. We may also need to

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hire additional personnel to support our compliance requirements. Moreover, these rules and regulations increase our legal and financial costs and make some activities more time-consuming.

If we fail to continue to maintain internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act, our market price may be adversely affected.

Section 404 of the Sarbanes-Oxley Act requires our management to assess the effectiveness of our internal control over financial reporting and to provide a report by our registered independent public accounting firm addressing the effectiveness of our internal control over financial reporting. If we are unable to continue to assert that our internal controls over financial reporting are effective, or if a material weakness is identified in our internal controls over financial reporting, or if we are unable to implement internal controls over financial reporting for our acquisitions, our financial results may be adversely affected and we could lose investor confidence in the reliability of our financial statements. Accordingly failure to maintain effective controls over financial reporting may have an adverse effect on the market price of our common stock.

Risks relating to ownership of our common stock and the Senior Notes:

Market volatility may affect our stock price and the value of your investment.

The market price for our common stock, and the software industry generally, has been and is likely to continue to be volatile. Volatility could make it difficult to trade shares of our common stock at predictable prices or times.

Many factors could cause the market price of our common stock to be volatile, including the following:

- variations in our quarterly or annual operating results;
- decreases in market valuations of comparable companies;
- fluctuations in stock market prices and volumes;
- decreases in financial estimates by equity research analysts;
- announcements by our competitors of significant contracts, new solutions or enhancements, acquisitions, distribution partnerships, joint ventures or capital commitments;
- departure of key personnel;
- changes in governmental regulations and standards affecting the software industry and our software solutions;
- sales of common stock or other securities by us in the future;
- damages, settlements, legal fees and other costs related to litigation, claims and other contingencies;
- deterioration of the general U.S. and global economic condition; and
- other risks described elsewhere in this section.

In the past, securities class action litigation often has been initiated against a company following a period of volatility in the market price of the company's securities. If class action litigation is initiated against us, we may incur substantial costs and our management's attention could be diverted from our operations. All of these factors could cause the market price of our stock to decline, and you may lose some or all of your investment.

Shares of our common stock are relatively illiquid and trading of our shares could adversely affect the market price of our common stock.

Our common stock is thinly traded, and we have a relatively small public float. Our common stock may be less liquid than the stock of companies with a broader public ownership. In addition, sales of a large volume of our common stock by us or our current or future stockholders, or the perception that sales could occur, may also have a significant impact on its trading price.

If equity research analysts cease to publish research or reports about us or if they issue unfavorable commentary or downgrade our common stock, the price of our common stock could decline.

The trading market for our common stock relies in part on the research and reports that equity research analysts publish about us and our business. The price of our stock could decline if one or more equity research analysts downgrade our stock or if those analysts issue other unfavorable commentary or cease publishing reports about our business.

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Anti-takeover provisions in our Certificate of Incorporation and Bylaws and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Our Certificate of Incorporation and Bylaws and Section 203 of the Delaware General Corporation Law contain provisions that might enable our management to resist a takeover of our company. These provisions include the following:

- the division of our board of directors into three classes to be elected on a staggered basis, one class each year;
- a prohibition on actions by written consent of our stockholders;
- the elimination of the right of stockholders to call a special meeting of stockholders;
- a requirement that stockholders provide advance notice of any stockholder nominations of directors or any proposal of new business to be considered at any meeting of stockholders;
- a requirement that a supermajority vote be obtained to amend or repeal certain provisions of our certificate of incorporation; and
- the ability of our board of directors to issue preferred stock without stockholder approval.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us. Although we believe these provisions collectively provide for an opportunity to obtain higher bids by requiring potential acquirors to negotiate with our board of directors, they would apply even if an offer were considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

We do not intend to pay dividends on our common stock in the foreseeable future.

We do not currently anticipate paying any cash dividends on our common stock in the foreseeable future. We currently anticipate that we will retain all of our available cash, if any, for use as working capital, repayment of debt and for other general corporate purposes. Any payment of future dividends would be at the discretion of our board of directors and would depend upon, among other things, our earnings, financial condition, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends and other considerations that the board of directors deems relevant.

The accounting method for convertible debt securities that may be settled in cash, such as the Senior Notes, could have a material effect on our reported financial results.

In May 2008, FASB, issued FASB Staff Position No. APB 14-1, Accounting for Convertible Debt Instruments That May Be Settled in Cash Upon Conversion (Including Partial Cash Settlement), which has subsequently been codified as Accounting Standards Codification 470-20, Debt with Conversion and Other Options, which we refer to as ASC 470-20. Under ASC 470-20, an entity must separately account for the liability and equity components of the convertible debt instruments (such as the Senior Notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the Senior Notes is that the equity component is required to be included in the additional paid-in capital section of stockholders' equity on our consolidated balance sheet and the value of the equity component would be treated as original issue discount for purposes of accounting for the debt component of the Senior Notes. As a result, we will be required to record a greater amount of non-cash interest expense in current periods presented as a result of the amortization of the discounted carrying value of the Senior Notes to their face amount over the term of the Senior Notes. We will report lower net income in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of the Senior Notes. In addition, under certain circumstances, convertible debt instruments (such as the Senior Notes) that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that any shares issuable upon conversion of the Senior Notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the notes exceeds their principal amount. Under the treasury

stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the Senior Notes, then our diluted earnings per share would be adversely affected.

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Our directors, executive officers, and certain significant stockholders hold a significant portion of our outstanding shares.

Our directors and executive officers collectively control approximately 17% of our issued and outstanding common shares, and together with certain significant stockholders, including investment funds associated with Brown Capital Management, LLC, T. Rowe Price Associates, Inc. and Champlain Investment Partners, LLC, control approximately 44% of our issued and outstanding common shares. As a result, these stockholders could influence matters requiring stockholder approval in ways that may not align with your interest as a stockholder, including the election of directors and approval of significant corporate transactions. This concentration of ownership may have the effect of delaying or preventing a change in control of us even if such change of control would be beneficial to you as a stockholder, and could affect the market price of our shares if there is a sale by this group of stockholders.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our headquarters are located in Houston, Texas, where we lease approximately 98,000 square feet of office space. As of December 31, 2014, we also lease smaller regional offices in London, England; Paris, France; Toulouse, France; Munich, Germany; San Francisco, California; Skokie, Illinois; and Austin, Texas. We believe our existing facilities are sufficient for our current needs. We may add new facilities and expand our existing facilities as we add employees, and we believe that suitable additional or substitute space will be available as needed to accommodate any such expansion of our operations.

Item 3. Legal Proceedings

In the ordinary course of our business, we regularly become involved in contract and other negotiations and, in more limited circumstances, become involved in legal proceedings, claims and litigation. The outcomes of these matters are inherently

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unpredictable. We are not currently involved in any outstanding litigation that we believe, individually or in the aggregate, will have a material adverse effect on our business, results of operations or financial condition.

Item 4. Mine Safety Disclosures

Not applicable.

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Part II

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

Market information, holders and dividends

Our common stock is listed on the NYSE under the symbol "PRO". The following table sets forth the high and low prices for shares of our common stock, as reported by the NYSE for the periods indicated.

	Price Range of Common Stock	
	Low	High
Year ended December 31, 2013		
First Quarter	\$18.03	\$27.97
Second Quarter	\$23.74	\$31.49
Third Quarter	\$29.36	\$34.57
Fourth Quarter	\$30.72	\$40.25
Year ended December 31, 2014		
First Quarter	\$30.47	\$41.06
Second Quarter	\$21.59	\$32.25
Third Quarter	\$24.01	\$28.52
Fourth Quarter	\$23.08	\$30.39

On February 24, 2015 there were 62 stockholders of record of our common stock. Since 2007, we have not declared or paid any dividends on our common stock. We currently expect to retain all remaining available funds and any future earnings for use in the operation and development of our business. Accordingly, we do not anticipate declaring or paying cash dividends on our common stock in the foreseeable future.

Securities authorized for issuance under equity compensation plans

The following table sets forth information as of December 31, 2014 with respect to compensation plans under which our equity securities are authorized for issuance. For additional information on our equity compensation plans, see Note 11 of the Notes to the Consolidated Financial Statements.

Plan Category	I	II	III
	Number of securities to be issued upon exercise of outstanding options and rights	Weighted-average exercise price of outstanding options and rights	Number of securities remaining available for future issuance under plans (excluding securities listed in Column (I))
All compensation plans previously approved by security holders	3,943,008	\$ 11.19	867,109
All compensation plans not previously approved by security holders	—	—	—
Total	3,943,008	\$ 11.19	867,109

Our 2007 equity incentive plan, adopted in March 2007, provides a formula for automatic increases in the number of securities available for issuance under such plan. The maximum aggregate number of securities that may be issued under the 2007 equity incentive plan cumulatively increases by a number of shares equal to the lesser of (i) 3.5% of the number of securities issued and outstanding on the immediately preceding December 31, (ii) Nine Hundred Thousand (900,000) shares, and (iii) an amount determined by our Board.

Performance graph

The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act or Exchange Act, except to the extent that we specifically incorporate it by reference into such filing.

The graph below presents a five-year comparison of the relative investment performance of our common stock, the Standard & Poor's 500 Stock Index ("S&P 500"), and the NASDAQ Computer Index for the period commencing on December

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31, 2009, and ending December 31, 2014. The graph is presented pursuant to the SEC rules and is not meant to be an indication of our future performance.

The graph assumes that \$100 was invested on December 31, 2009, in our common stock, the S&P 500 and the (1)NASDAQ Computer Index and further assumes all dividends were reinvested. No cash dividends have been paid on our common stock for the periods presented above.

	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014
PRO	\$110.05	\$143.77	\$176.71	\$385.51	\$265.51
S&P 500	\$112.78	\$112.78	\$127.90	\$165.76	\$184.64
NASDAQ Computer Index	\$117.44	\$118.01	\$132.74	\$175.15	\$209.96

Issuer purchase of equity securities

On August 25, 2008, we announced that the Board of Directors authorized a stock repurchase program for the purchase of up to \$15.0 million of our common stock. Under the board-approved repurchase program, share purchases may be made from time to time in the open market or through privately negotiated transactions depending on market conditions, share price, trading volume and other factors, and such purchases, if any, will be made in accordance with applicable insider trading and other securities laws and regulations. These repurchases may be commenced or suspended at any time or from time to time without prior notice.

During 2014, we did not make any purchases of our common stock under this program. As of December 31, 2014, \$10.0 million remains available under the stock repurchase program.

Recent Sales of Unregistered Securities

There were no unregistered sales of equity securities for the year ended December 31, 2014.

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Item 6. Selected financial data

The following selected consolidated financial data presented under the captions "Selected consolidated statement of operations data" and "Selected consolidated balance sheet data" for, and as of the end of, each of the five years in the five year period ended December 31, 2014 are derived from our Consolidated Financial Statements. The selected consolidated financial data set forth below should be read in conjunction with, and is qualified by reference to, "Management's Discussion and Analysis of Financial Condition and Result of Operations" and our Consolidated Financial Statements and the related Notes included elsewhere in this report. As presented in the table, amounts are in thousands (except per share data).

	Year Ended December 31,				
	2014	2013	2012	2011	2010
Selected consolidated statement of operations data:					
Total revenue	\$185,829	\$144,837	\$117,791	\$96,639	\$71,045
Gross profit	127,743	101,702	84,006	70,337	50,653
(Loss) Income from operations	(22,407)	3,538	8,180	8,775	(4,112)
Net (loss) income	(37,551)	3,446	4,966	6,350	(1,931)
Net (loss) income attributable to common stockholders	\$(36,644)	\$3,446	\$4,966	\$6,350	\$(1,931)
Net (loss) income attributable to common stockholders per share:					
Basic	(1.27)	0.12	0.18	0.24	(0.07)
Diluted	(1.27)	0.11	0.17	0.23	(0.07)
Weighted average number of shares:					
Basic	28,915	28,004	27,366	26,832	26,090
Diluted	28,915	30,114	28,420	27,762	26,090
Selected consolidated balance sheet data:					
Cash and cash equivalents, unrestricted	\$161,019	\$44,688	\$83,558	\$68,457	\$55,845
Working capital	151,903	72,127	72,950	66,334	52,326
Total assets	300,125	179,828	146,479	121,259	98,128
Long-term obligations	112,740	3,523	3,334	2,976	1,461
Total stockholders' equity	\$98,999	\$111,303	\$88,669	\$73,943	\$59,503

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Item 7. Management's discussion and analysis of financial condition and results of operations

Overview

PROS provides big data software applications designed to help companies outperform in their markets by using big data to sell more effectively. We apply years of data science experience to unlock buying patterns and preferences within transaction data to reveal which opportunities are most likely to close, which offers are most likely to sell and which prices are most likely to win. PROS offers big data software applications to analyze, execute and optimize sales, pricing, quoting, rebates and revenue management. We also provide professional services to implement our software applications, as well as business consulting. Since inception, PROS has completed over 800 implementations of our solutions across more than 40 industries in more than 55 countries.

Fiscal 2014 Overview

Fiscal 2014 was a year of continued investment, innovation and growth for PROS. Over the past twelve months, we continued to make significant investments in our on-going diversified growth strategy and initiatives to accelerate awareness. These increased investments included expanding our sales force and offering a new packaged offering in order to help reduce sales cycle time. These investments helped drive our results in fiscal 2014 and we believe position us well for future growth.

License Revenue Recognition

Prior to 2013, we did not generally recognize license revenue upon customer contract signature and software delivery. However, beginning in 2013, we started recognizing more license revenue upon software delivery, with \$5.9 million of software license revenue recognized at contract during fiscal 2013. In fiscal 2014, the percentage of customer contracts for which we recognized license revenue on contract further increased, with \$27.2 million, or 46.5% of our license revenue recognized at contract. Our contractual performance obligations in the future may differ from historical periods impacting the timing of the recognition of revenue. A delay or deferral in a small number of large new software license transactions could cause our quarterly license revenue to fall significantly short of our expectations.

Revenue by Geography

The following geographic information is presented for the years ended December 31, 2014, 2013 and 2012. The Company categorizes geographic revenues based on the location of the customer's headquarters.

	Year Ended December 31,		2013		2012			
	2014		Revenue	Percent	Revenue	Percent		
United States of America	\$82,086	44	% \$65,072	45	% \$51,631	44	%	
Europe	45,987	25	% 33,666	23	% 31,545	27	%	
The rest of the world	57,756	31	% 46,099	32	% 34,615	29	%	
Total revenue	\$185,829	100	% \$144,837	100	% \$117,791	100	%	

Acquisitions

An active acquisition program is another important element of our corporate strategy. We believe our acquisition program strengthens our competitive position, enhances the products and services that we can offer to customers, expands our customer base, grows our revenues and increases our overall value. We expect to continue to acquire companies and technologies in furtherance of our corporate strategy.

Fiscal 2014 Acquisition

In October 2013, we entered into a tender offer agreement with Cameleon, indicating the Company's intent to acquire Cameleon through the tender offer for all of the outstanding share capital of Cameleon in an all cash tender offer. As a result of shares purchased in the market following the completion of the tender in January 2014, the exercise of warrants in July 2014, and second tender completed in November 2014, we controlled 100% of Cameleon's common stock as of December 31, 2014. We acquired Cameleon for total cash consideration of approximately \$32 million, net of cash acquired.

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Fiscal 2013 Acquisition

In December 2013, we acquired SignalDemand, Inc. for total cash consideration of \$13.5 million.

Financing Activities

In December 2014, we issued \$143.8 million aggregate principal amount of 2.0% convertible Senior Notes due December 1, 2019, unless earlier purchased or converted. Interest is payable semiannually in arrears on June 1 and December 1 of each year, commencing on June 1, 2015.

Opportunities, trends and uncertainties

We have noted opportunities, trends and uncertainties that we believe are particularly significant to understand our financial results and condition.

Growth opportunities. We believe the market for our big data software applications for pricing and sales effectiveness is underpenetrated. Market interest for our software has increased over the past several years providing us with growth opportunities. We have and will continue to invest in our business to more effectively address these opportunities through significant investment in professional services, research and development, sales, marketing and support function. In addition to organic growth, we have acquired, and may continue to acquire companies or technologies that can contribute to the strategic, operational and financial growth of our business. We expect to continue to explore both organic and inorganic growth opportunities.

Managing our continued growth. Since 2012, we have experienced strong growth in both our revenues and operations, including significant growth in our sales and marketing personnel. Our continued success depends on, among other things, our ability to successfully recruit, train and retain personnel to execute our sales and marketing strategies, successfully integrate the operations and personnel of companies we have acquired or may acquire, appropriately manage our expenses as we grow; enter into and maintain beneficial channel relationships; and develop new products. If we are not able to execute on these actions, our business may not grow as we anticipate.

Variability in revenue. Our historical revenue recognition policy provided visibility into a significant portion of our revenue in near-term quarters, although the actual timing of revenue recognition varies based on the nature and requirements of our contracts. For the majority of our arrangements, we have not historically recognized license revenue upon customer contract signature and software delivery. However, in 2013 we began recognizing license revenue upon contract signature and software delivery, provided that the applicable revenue recognition criteria are met. Our contractual performance obligations in the future may differ from historical periods impacting the timing of the recognition of revenue. For example, growth in our term license and SaaS offerings may result in the deferral of revenue over the contractual term, growth in perpetual license arrangements may increase the recognition of license revenue on delivery, and a decline in perpetual license arrangements may decrease revenue in any individual quarter. Our revenue could also vary based on our customer mix and customer geographic location. A delay or deferral in a small number of large new software license transactions could cause our quarterly license revenue to fall significantly short of our expectations. From a geographical standpoint, approximately 56%, 55%, and 56% of our consolidated revenues were derived from customers outside the United States for each of the years ended December 31, 2014, 2013 and 2012, respectively. The economic and political environments around the world could change our concentration of revenue within industries and across geographies.

Uncertain global economic conditions. During fiscal 2014, the global economic environment continued to show signs of improvement. However, there remain concerns and uncertainty about the strength of the recovery, future domestic and global economic growth, and the global financial system including numerous ongoing geopolitical issues around the globe. During uncertain economic conditions, we generally experience longer sales cycles, increased scrutiny on

purchasing decisions and overall cautiousness taken by customers. In addition, certain foreign countries are still facing significant economic and political crises and it is possible that these crises could result in economic deterioration in the markets in which we operate. This economic uncertainty may negatively affect the overall demand environment in fiscal 2015, particularly in our EMEA region. We believe that our expanded offerings of industry-specific solutions and innovative technology will enable us to stay competitive in a challenging economic environment and outperform the broader market as business leaders continue to focus on projects that quickly deliver value, however the extent to which the current economic conditions will further affect our business is uncertain.

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Effective tax rate. Our effective tax rate can be adversely affected by several factors, many of which are outside of our control, including changes in the relative proportions of revenues and income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates; changing tax laws, regulations, and interpretations in multiple jurisdictions in which we operate; changes to the financial accounting rules for income taxes; unanticipated changes in tax rates; changes in accounting and tax treatment of our equity-based compensation; the tax effects of purchase accounting for acquisitions that may cause fluctuations between reporting periods; and changes to the valuation allowance on our net deferred tax assets.

Discussion of consolidated financial information

Revenue

Our revenue is derived from the licensing and implementation of software solutions, associated software maintenance and support, and professional services. Revenue also includes nonsoftware related SaaS and cloud-based services. Our arrangements with customers typically include some, but not all, of the following: (a) license fees for the use of our solutions either in perpetuity or over a specified term, (b) professional service fees for configuration, implementation and training services, (c) maintenance and support fees related to technical support and software updates, and (d) subscription fees for our SaaS and cloud-based services. If there is significant uncertainty about contract completion or collectability is not reasonably assured, revenue is deferred until the uncertainty is sufficiently resolved or collectability is reasonably assured. In addition, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred and fees are considered fixed and determinable.

In determining whether professional services revenue should be accounted for separately from license revenue, we evaluate whether the professional services are considered essential to the functionality of the software. This evaluation is based on factors such as: the nature of our software products; whether they are ready for use by the customer upon receipt; the nature of our professional services; the availability of professional services from other vendors; whether the timing of payments for license revenue coincides with performance of services; and whether milestones or acceptance criteria exist that affect the realizability of the software license fee.

License revenue. We derive the majority of our license revenue from the sale of perpetual licenses. For software license arrangements that do not require significant modification or customization of the underlying software, we recognize software license revenues at contract provided professional services are not considered essential to the delivery of the software and when: (1) we enter into a legally binding arrangement with a customer for the license of software; (2) we deliver the products; (3) the sale price is fixed or determinable and free of contingencies or significant uncertainties; and (4) collection is probable. Revenues that are not recognized at the time of sale because the foregoing conditions are not met, are recognized when those conditions are subsequently met.

We evaluate the nature and scope of professional services for each arrangement and if we determine that the professional services revenue should not be accounted for separately from license revenue, the license revenue is recognized together with the professional services revenue using the percentage-of-completion method or completed contract method. The completed contract method is also used for contracts where there is a risk over final acceptance by the customer or for contracts that are short-term in nature.

The portion of our license revenue that is recognized using the percentage-of-completion method, along with subscription and maintenance revenue, provides visibility into a portion of our revenue in the near-term quarters, although the actual timing of recognition of revenue on a percentage-of-completion arrangement varies based on the nature and requirements of our contracts. Under the percentage-of-completion method of accounting, our license revenue recognition generally begins when implementation efforts commence, and continues over the implementation period.

The percentage-of-completion method is measured by the percentage of man-days expended on an implementation during the reporting period as a percentage of the total man-days estimated to be necessary to complete the software implementation. We measure performance under the percentage-of-completion method using the total man-day method based on current estimates of man-days to complete the software implementation. We believe that for each such software implementation, man-days expended in proportion to total estimated man-days at completion represents the most reliable and meaningful measure for determining a software implementation's progress toward completion. In addition, for fixed-fee software implementation arrangements, should a loss be anticipated on a contract, the full

amount of the loss is recorded when the loss is determinable. See "Critical accounting policies and estimates" for additional information regarding revenue recognition.

We also license software under term license agreements that typically include maintenance and support during the contractual license term. Our term license agreements typically range from two to five years. Revenue and the associated cost is deferred until the delivery of the licensed solution and recognized ratably over the remaining contractual license term. Revenue

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from term license agreements represented 2.9%, 3.6%, and 4.8% of total revenue for the years ended December 31, 2014, 2013 and 2012, respectively.

Service revenue. We also provide software-related professional services, including implementation and configuration services, consulting and training. Professional services are generally provided under time and materials contracts and revenues are recognized as the services are provided. However, if we enter into arrangements with a fixed-fee, professional services revenue are recognized based upon a proportionate performance method. When we enter into arrangements where professional services are considered essential to the functionality of the software, professional services revenue is recognized based upon the percentage of completion method. Under this method, revenue is recognized based upon labor hours incurred as the percentage of total estimated labor hours to complete the project. Revenues for professional services that are bundled with license fees are recognized when the services are performed. We also recognize revenue associated with billable expenses when the expenses are incurred.

Subscription revenue. We also provide SaaS and cloud-based offerings. Our SaaS offerings generally provide customers access to certain of our software solution within a cloud-based IT environment that we manage and offer to customers on a subscription basis. Revenues for our SaaS offerings are generally recognized ratably over the contract term commencing with the date our service is made available to customers and all other revenue recognition criteria have been satisfied.

Our cloud-based services allow our customers to deploy PROS solutions without any significant investment in hardware as PROS software is integrated in cloud-based IT environments that are deployed, supported and managed on our customers' behalf. For arrangements that include cloud-based services, we allocate the arrangement consideration between the cloud-based service and other elements and recognize the cloud services fee ratably beginning on the date the customer commences use of our services and continuing through the end of the contractual cloud services term.

Maintenance and support revenue. We generate maintenance and support revenue from the sale of maintenance and support services on our software solutions. The vast majority of our software license arrangements include software license updates and product support contracts, generally ranging from one to two years. Software license updates provide customers with rights to unspecified software updates and enhancements on a when and if available basis, maintenance releases and patches released during the term of the support period. Software license updates and product support contracts are generally priced as a percentage of the software licenses fees. Substantially all of our customers renew their software license updates and product support contracts annually. Maintenance and support fees are invoiced to our customers generally on an annual basis, although they may be invoiced on a monthly or quarterly basis in certain circumstances.

Cost of revenue

Cost of license. Cost of license consists of third-party fees for our licensed software and an allocation of the amortization of intangibles.

Cost of services. Cost of services includes those costs related to professional services and implementation of our solutions, principally (a) personnel costs, which include our employees and employee benefits and third party contractors, (b) noncash share based compensation expense, (c) billable and nonbillable travel, lodging and other out-of-pocket expenses, and (d) an allocation of depreciation, facilities and information technology ("IT") support costs and other costs incurred in providing professional services to our customers. Cost of providing professional services may vary from quarter to quarter depending on a number of factors, including the amount of professional services required to deploy our solutions.

Cost of subscription. Cost of subscription includes those costs related to supporting our SaaS and cloud-based services, principally (a) personnel costs, which include our employees and third party contractors, (b) noncash share based compensation expense, (c) billable and nonbillable travel, lodging and other out-of-pocket expenses, (d) amortization of capitalized software for internal use and (e) an allocation of depreciation, amortization of intangibles, facilities and IT support costs and other costs incurred in providing SaaS and cloud-based services to our customers.

Cost of maintenance and support. Cost of maintenance and support consists largely of personnel related expenses and an allocation of depreciation, amortization of intangibles, facilities and IT support costs and other costs incurred in providing maintenance and support services to our customers.

Operating expenses

Selling and marketing. Selling and marketing expenses principally consist of (a) personnel costs, which include our employees and employee benefits, third party contractors and sales commissions related to selling and marketing personnel, (b) noncash share based compensation expense, (c) sales and marketing programs such as lead generation programs, company awareness programs, conferences, hosting and participation in industry trade shows, and other sales and marketing programs, (d) travel and other out-of-pocket expenses, (e) amortization expenses associated with acquired intangible assets and (f) an allocation of depreciation, facilities and IT support costs and other costs.

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General and administrative. General and administrative expenses consist primarily of expenditures for executive, accounting and finance, legal, information technology, and human resources support functions. General and administrative expenses principally consist of (a) personnel costs, which include our employees and employee benefits and third-party contractors, (b) noncash share based compensation expenses, (c) travel and other out-of-pocket expenses, (d) accounting, legal and other professional fees and (e) an allocation of depreciation, facilities and IT support costs and other costs.

Research and development. Research and development expenses principally consist of (a) personnel costs, which include our employees and employee benefits and third party contractors, which are comprised of software developers, scientists and product managers working on enhancements of existing solutions, the development of new solutions, scientific research, quality assurance and testing, (b) noncash share based compensation expenses, (c) amortization expenses associated with acquired intangible assets and (d) an allocation of depreciation, facilities and IT support costs and other costs.

Income taxes

We estimate our income taxes based on the various jurisdictions where we conduct business and we use estimates in determining our provision for income taxes. We estimate separately our deferred tax assets, related valuation allowances, current tax liabilities and deferred tax liabilities. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax rules and the potential for future adjustment of our uncertain tax positions by the United States Internal Revenue Service or other taxing jurisdictions. We estimate our current tax liability and assess temporary differences that result from differing treatments of certain items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which we show on our balance sheet. At December 31, 2014, our deferred tax assets consisted primarily of temporary differences related to noncash share based compensation and acquired net operating losses.

We review the realizability of our deferred tax asset valuation allowances on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset are considered, along with any other positive or negative evidence. Since future financial results may differ from previous estimates, periodic adjustments to our valuation allowances may be necessary. In the fourth quarter of fiscal 2014, we again performed an analysis related to the realizability of our worldwide deferred tax assets. After considering tax planning initiatives and other positive and negative evidence, we determined that it was more likely than not that our deferred tax assets would not be realized. Therefore, we recorded a \$19.5 million net valuation allowance as income tax expense in the year ended December 31, 2014.

As a part of our accounting for business combinations, intangible assets are recognized at fair value and goodwill is measured as the excess of consideration transferred over the net estimated fair value of assets acquired. Impairment charges associated with goodwill are generally not tax deductible and will result in an increased effective income tax rate in the period that any impairment is recorded. Amortization expenses associated with acquired intangible assets are generally not tax deductible pursuant to our existing tax structure.

Our federal effective tax rate has historically been lower than the federal rate of 34% largely due to the application of the research and experimentation ("R&E") tax credit. In January 2013, Congress passed the American Taxpayer Relief Act of 2012 which, among other things, made the R&E tax credit retroactive to January 1, 2012 and extended the R&E tax credit until December 31, 2013. As a result of the retroactive reinstatement of the R&E tax credit, the full benefit of the 2012 R&E tax credit was recorded in the first quarter of 2013. In December 2014, Congress passed the Tax Increase Prevention Act of 2014 which, among other things extended the R&E tax credit until December 31, 2014.

Deferred revenue and unbilled receivables

For our license and professional service fees, we invoice and are paid based upon contractual payment schedules in each customer arrangement, which in limited circumstances include payments linked to contractual milestones. We record as deferred revenue invoices that have been issued before the corresponding license and implementation revenue is recognized. We record as unbilled receivables any recognized license and implementation revenue in excess of the amount invoiced to the customer. We generally invoice for our maintenance and support services on a monthly, quarterly or annual basis through the maintenance and support period. Deferred revenue does not reflect the total contract value of our customer arrangements at any point in time as we only record deferred revenue if amounts are invoiced in advance of the corresponding recognition of license and implementation revenue. As a result, there is little correlation between the timing of our revenue recognition, the timing of our invoicing and the amount of deferred revenue.

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Results of operations

Comparison of year ended December 31, 2014 with year ended December 31, 2013

Revenue:

(Dollars in thousands)	For the Year Ended December 31,								
	2014	2013	Percentage	Amount	Percentage	Variance \$	Variance %		
	Amount		of total		of total				
			revenue		revenue				
License	\$58,515	31	%	\$41,116	28	%	\$17,399	42	%
Services	49,225	26	%	48,412	33	%	813	2	%
Subscription	23,468	13	%	9,221	6	%	14,247	155	%
Total license, services and subscription	131,208	71	%	98,749	68	%	32,459	33	%
Maintenance and support	54,621	29	%	46,088	32	%	8,533	19	%
Total revenue	\$185,829	100	%	\$144,837	100	%	\$40,992	28	%

License, services and subscription. License, services and subscription revenue increased \$32.5 million to \$131.2 million for the year ended December 31, 2014 from \$98.7 million for the year ended December 31, 2013, representing a 33% increase. The increase in total license, services and subscription revenue was the result of a \$17.4 million increase in license revenue, a \$14.2 million increase in subscription revenue and a \$0.8 million increase in services revenue. Our 2014 revenue was positively impacted by our acquisitions.

License revenue increased \$17.4 million to \$58.5 million for the year ended December 31, 2014 from \$41.1 million for the year ended December 31, 2013, representing a 42% increase. The increase in license revenue was attributable to an increase in license revenue recognized upon software delivery and an increase in the average license revenue recognized per customer. The average license revenue per customer, for customers with greater than \$0.1 million of license revenue recognized, increased to \$1.1 million for the year ended December 31, 2014 from \$0.7 million per customer for the year ended December 31, 2013. The increase in average license revenue recognized per customer was primarily attributable to an increase in license revenue recognized upon software delivery. We recognized \$27.2 million and \$5.9 million of license revenue upon software delivery for the years ended December 31, 2014 and 2013, respectively.

Services revenue increased \$0.8 million to \$49.2 million for the year ended December 31, 2014 from \$48.4 million for the year ended December 31, 2013, representing a 2% increase. The \$0.8 million increase in services revenue was primarily attributed to \$5.9 million of services revenue from our acquisitions, partially offset by a decrease of \$5.1 million in organic services revenue. The decrease of \$5.1 million was primarily a result of an increase in the number of third parties implementing our software, recent implementations requiring less implementation services and several customers delaying some services into 2015. Total service revenue increased due to an increase in the overall number of customers generating services revenue. The total number of customers generating services revenue was 193 for the year ended December 31, 2014, as compared to 108 in the corresponding period in 2013, an increase of 79%.

Subscription revenue increased \$14.2 million to \$23.5 million for the year ended December 31, 2014 from \$9.2 million for the year ended December 31, 2013, representing a 155% increase. The \$14.2 million increase in subscription revenue was primarily attributed to \$11.3 million of subscription revenue from our acquisitions and an increase in the overall total number of customers generating subscription revenue. The total number of customers generating subscription revenue was 90 for the year ended December 31, 2014, as compared to 36 in the corresponding period in 2013, an increase of 150%.

Maintenance and support. Maintenance and support revenue increased \$8.5 million to \$54.6 million for the year ended December 31, 2014 from \$46.1 million for the year ended December 31, 2013, representing a 19% increase. The \$8.5

million increase in maintenance and support revenue was principally a result of an increase in the number of customers purchasing maintenance and support services and included \$3.2 million of maintenance and support revenue from our acquisitions.

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Cost of revenue and gross profit:

(Dollars in thousands)	For the Year Ended December 31, 2014		2013		Variance \$	Variance %
	Amount	Percentage of related revenue	Amount	Percentage of related revenue		
Cost of license	\$243	—	% \$282	1	% \$(39)	(14)%
Cost of services	39,955	81	% 32,492	67	% 7,463	23 %
Cost of subscription	7,334	31	% 2,122	23	% 5,212	246 %
Total cost of license, services and subscription	47,532	36	% 34,896	35	% 12,636	36 %
Cost of maintenance and support	10,554	19	% 8,239	18	% 2,315	28 %
Total cost of revenue	\$58,086	31	% \$43,135	30	% \$14,951	35 %
Gross profit	\$127,743	69	% \$101,702	70	% \$26,041	26 %

Cost of license. Cost of license primarily consists of third-party fees for licensed. Cost of license was \$0.2 million for the year ended December 31, 2014, compared to \$0.3 million for the year ended December 31, 2013. License gross profit percentages for the year ended December 31, 2014 and 2013, were 100% and 99%, respectively, as a result of limited third-party fees for licensed software incurred during both periods.

Cost of services. Cost of services increased \$7.5 million to \$40.0 million for the year ended December 31, 2014 from \$32.5 million for the year ended December 31, 2013, representing a 23% increase. The increase was primarily attributable to an increase of \$7.4 million from our acquisitions. Services gross profit percentages for the years ended December 31, 2014 and 2013, were 19% and 33%, respectively. The decrease in services gross margins was driven by increases in professional services personnel costs, primarily attributable to our acquisitions. In addition, lower service margins from our acquisitions contributed to the decrease in our services gross margins. Since a substantial portion of our cost of services are professional services personnel costs, services gross margins can vary from period to period depending the utilization of our professional services personnel and additional headcount needed to support anticipated future implementations.

Cost of subscription. Cost of subscription increased \$5.2 million to \$7.3 million for the year ended December 31, 2014 from \$2.1 million for the year ended December 31, 2013, representing a 246% increase. The increase was primarily attributable to a \$4.5 million increase from our acquisitions, which included \$1.4 million of intangible asset amortization. Subscription gross profit percentages for the years ended December 31, 2014 and 2013, were 69% and 77%, respectively. The decrease in subscription gross profit percentage was attributable to our acquisitions.

Cost of maintenance and support. Cost of maintenance and support revenue increased \$2.3 million to \$10.6 million for the year ended December 31, 2014, from \$8.2 million for the year ended December 31, 2013, representing a 28% increase. The cost of providing maintenance and support services consists largely of personnel related expenses. The increase in cost of maintenance was principally attributable to an increase of \$1.5 million of personnel costs associated with the continued growth in our customer maintenance and support function commensurate with maintenance and support revenue growth. In addition, there was an increase of \$0.8 million related to intangible asset amortization related to our acquisitions. Maintenance and support gross margins were 81% and 82% for the years ended December 31, 2014 and 2013, respectively.

Gross profit. Gross profit increased \$26.0 million to \$127.7 million for the year ended December 31, 2014 from \$101.7 million for the year ended December 31, 2013, representing a 26% increase. The increase in overall gross profit was principally attributable to a 28% increase in total revenue, which included revenue from our acquisitions. Our acquisitions contributed \$8.0 million of gross profit for the year ended December 31, 2014.

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Operating expenses:

(Dollars in thousands)	For the Year Ended December 31,							
	2014		2013		Variance \$	Variance %		
	Amount	Percentage of total revenue	Amount	Percentage of total revenue				
Selling and marketing	\$62,156	33 %	\$39,478	27 %	\$22,678	57 %		
General and administrative	37,761	20 %	24,046	17 %	13,715	57 %		
Research and development	43,174	23 %	32,467	22 %	10,707	33 %		
Acquisition-related	3,019	2 %	2,173	2 %	846	39 %		
Impairment charges	4,040	2 %	—	— %	4,040	-		
Total operating expenses	\$150,150	81 %	\$98,164	68 %	\$51,986	53 %		

Selling and marketing. Selling and marketing expenses increased \$22.7 million to \$62.2 million for the year ended December 31, 2014 from \$39.5 million for the year ended December 31, 2013, representing a 57% increase. The increase was attributable to an increase of \$14.8 million of personnel costs, which included \$4.4 million related to our acquisitions. Personnel costs, which include our employees and third-party consulting costs, increased primarily as a result of an increase in headcount in sales and marketing to support our current and future growth objectives and an increase in headcount from our acquisitions. Included in the increase in personnel costs was an increase of \$4.3 million in sales commissions resulting from higher revenue levels and an increase of \$1.3 million of noncash share-based compensation. The remaining increase of \$7.9 million included \$2.7 million in travel expenses, \$2.4 million in intangible assets amortization, \$2.3 million in sales and marketing events, \$0.3 million in facility and other overhead expenses and \$0.2 million in recruiting expenses.

General and administrative expenses. General and administrative expenses increased \$13.7 million to \$37.8 million for the year ended December 31, 2014 from \$24.0 million for the year ended December 31, 2013, representing a 57% increase. The increase was attributable to an increase of \$8.7 million of personnel costs, which included \$2.5 million related to our acquisitions. Personnel costs, which include our employees and third-party consulting costs, increased primarily as a result of an increase in headcount in general and administrative to support our current and future growth objectives and an increase in headcount from our acquisitions. Included in the increase in personnel costs was an increase of \$2.3 million of noncash share-based compensation. The remaining increase of \$5.0 million included \$3.3 million in facility and other overhead expenses, \$0.7 million in travel, \$0.6 million in professional fees and \$0.4 million in recruiting expenses.

Research and development expenses. Research and development expenses increased \$10.7 million to \$43.2 million for the year ended December 31, 2014 from \$32.5 million for the year ended December 31, 2013, representing a 33% increase. The increase was attributable to an increase of \$10.2 million of personnel costs, which included \$5.6 million related to our acquisitions. Personnel costs, which include our employees and third-party consulting costs, increased as a result of an increase in headcount from our acquisitions and headcount to support ongoing development activities. Included in the increase in personnel costs was an increase of \$1.5 million of noncash share based compensation expense. The remaining increase of \$0.5 million was primarily attributable to \$0.3 million of facility and other overhead expenses and \$0.2 million of travel.

Acquisition-related expense. Acquisition-related expenses were \$3.0 million and \$2.2 million for the year ended December 31, 2014 and 2013, respectively, consisting primarily of advisory and legal fees related to the acquisition and integration of SignalDemand and Cameleon.

Impairment charges. During the year ended December 31, 2014, we recorded \$4.0 million of impairment charges related to internally developed software. The full impairment resulted from a reduction of projected cash flows for product groups based on revisions to our projections during the year and was recorded to reduce the carrying value to fair value. This reduction reflected changes to our plans for certain product groups in connection with the integration of our acquisitions and changes in future product launches and support.

Other expense, net:

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For the Year Ended December 31,
2014 2013

(Dollars in thousands)	Amount	Percentage of total revenue	Amount	Percentage of total revenue	Variance \$	Variance %
Other expense, net	(2,651)	(1)%	(265)	— %	2,386	(900)%

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The increase of \$2.4 million in other expense, net included an increase of \$1.5 million of foreign currency exchange losses on transactions denominated in currencies other than the functional currency, an increase of \$0.3 million of debt discount and issuance cost amortization, an increase of \$0.2 million of coupon interest related to our Senior Notes due 2019, and an increase of \$0.5 million of other miscellaneous income and expenses.

Income tax provision (benefit):

(Dollars in thousands)	For the Year Ended			
	December 31,			
	2014	2013	Variance \$	Variance %
Effective tax rate	(50)%	(5)%	n/a	(45)%
Income tax provision (benefit)	\$12,493	\$(173)	\$12,666	nm

Our income tax provision increased \$12.7 million to \$12.5 million for the year ended December 31, 2014, from a tax benefit of \$0.2 million for the year ended December 31, 2013. Our effective tax rates were (50)% and (5)% for the years ended December 31, 2014 and 2013, respectively. Our effective tax rate for fiscal 2014 included a \$19.5 million net valuation allowance recorded in the fourth quarter of 2014 and included tax benefits from the reinstatement of the U.S. R&E tax credit of approximately \$1.8 million.

The change in our effective tax rate for fiscal 2014 compared to fiscal 2013 was driven by a \$19.5 million net valuation allowance recorded in the fourth quarter of 2014, increases in nondeductible share-based compensation expense and nondeductible acquisition costs and decreases in our R&E credit. The 2013 tax provision included a discrete benefit of \$1.4 million attributed to the 2012 R&E tax credit recorded in the first quarter of 2013.

Comparison of year ended December 31, 2013 with year ended December 31, 2012

Revenue:

(Dollars in thousands)	For the Year Ended December 31,					
	2013	Percentage of total revenue	2012	Percentage of total revenue	Variance \$	Variance %
License	\$41,116	28 %	\$32,968	28 %	\$8,148	25 %
Services	48,412	33 %	35,635	30 %	12,777	36 %
Subscription	9,221	6 %	9,053	8 %	168	2 %
Total license, services and subscription	98,749	68 %	77,656	66 %	21,093	27 %
Maintenance and support	46,088	32 %	40,135	34 %	5,953	15 %
Total revenue	\$144,837	100 %	\$117,791	100 %	\$27,046	23 %

License, services and subscription. License, services and subscription revenue increased \$21.1 million to \$98.7 million for the year ended December 31, 2013 from \$77.7 million for the year ended December 31, 2012, representing a 27% increase. The increase in total license, services and subscription revenue was the result of a \$12.8 million increase in services revenue, a \$8.1 million increase in license revenue, and a \$0.2 million increase in subscription revenue.

License revenue increased \$8.1 million to \$41.1 million for the year ended December 31, 2013 from \$33.0 million for the year ended December 31, 2012, representing a 25% increase. The increase in license revenue was attributable to an increase in the average license revenue recognized per customer. The average license revenue per customer, for customers with greater than \$0.1 million of license revenue recognized, increased to \$0.7 million for the year ended December 31, 2013 from \$0.6 million per customer for the year ended December 31, 2012. The increase in average license revenue recognized per customer was primarily attributable to an increase in license revenue recognized upon software delivery. We recognized \$5.9 million and \$3.2 million of license revenue upon software delivery for the years ended December 31, 2013 and 2012, respectively.

Services revenue increased \$12.8 million to \$48.4 million for the year ended December 31, 2013 from \$35.6 million for the year ended December 31, 2012, representing a 36% increase. The \$12.8 million increase in services revenue was primarily attributed to an increase in professional services associated with the implementation of our software. Total service revenue increased due to an increase in the overall number of customers generating services revenue. The total number of customers generating services revenue was 108 for the year ended December 31, 2013, as compared to 100 in the corresponding period in 2012, an increase of 8%.

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Subscription revenue increased \$0.2 million to \$9.2 million for the year ended December 31, 2013 from \$9.1 million for the year ended December 31, 2012, representing a 2% increase. The \$0.2 million increase in subscription revenue was primarily attributed to an increase in the total number of customers generating subscription revenue. The total number of customers generating subscription revenue was 36 for the year ended December 31, 2013, as compared to 19 in the corresponding period in 2012, an increase of 89%.

Maintenance and support. Maintenance and support revenue increased \$6.0 million to \$46.1 million for the year ended December 31, 2013 from \$40.1 million for the year ended December 31, 2012, representing a 15% increase. The increase in maintenance and support revenue was principally the result of an increase in the number of customers that purchased maintenance and support services.

Cost of revenue and gross profit:

(Dollars in thousands)	For the Year Ended December 31,							
	2013	2012	Percentage	2012	Percentage	Variance \$	Variance %	
	Amount	Amount	of related	Amount	of related			
			revenue		revenue			
Cost of license	\$282	\$244	1 %	\$244	1 %	\$38	16	%
Cost of services	32,492	24,329	67 %	24,329	68 %	8,163	34	%
Cost of subscription	2,122	1,257	23 %	1,257	14 %	865	69	%
Total cost of license, services and subscription	34,896	25,830	35 %	25,830	33 %	9,066	35	%
Cost of maintenance and support	8,239	7,955	18 %	7,955	20 %	284	4	%
Total cost of revenue	\$43,135	\$33,785	30 %	\$33,785	29 %	\$9,350	28	%
Gross profit	\$101,702	\$84,006	70 %	\$84,006	71 %	\$17,696	21	%

Cost of license. Cost of license consists of third-party fees for licensed software. Cost of license was \$0.3 million for the year ended December 31, 2013 as compared to \$0.2 million for the year ended December 31, 2012. License gross profit percentages for both the year ended December 31, 2013 and 2012, were 99%, as a result of limited third-party fees for licensed software incurred over both periods.

Cost of services. Cost of services increased \$8.2 million to \$32.5 million for the year ended December 31, 2013, from \$24.3 million for the year ended December 31, 2012, representing a 34% increase. The increase was primarily attributable to an increase of personnel costs, which include employees and third-party consulting costs, as a result of an increase in headcount needed to support the increased number of active and anticipated implementations. Included in the increase in personnel cost is an increase of \$0.5 million of noncash share based compensation expense. Services gross profit percentages for the year ended December 31, 2013 and 2012, were 33% and 32%, respectively. Service margins can vary from period to period depending on different factors, including the utilization of our professional services personnel and additional headcount needed to support anticipated future implementations.

Cost of subscription. Cost of subscription increased \$0.9 million to \$2.1 million for the year ended December 31, 2013, from \$1.3 million for the year ended December 31, 2012, representing a 69% increase. The increase was primarily attributable to personnel costs and an increase in expenses for our cloud-based infrastructure. Subscription gross profit percentages for the year ended December 31, 2013 and 2012, were 77% and 86%, respectively. The decrease in subscription gross profit percentage was attributable our increase investments in cloud-based infrastructure.

Cost of maintenance and support. Cost of maintenance and support revenue increased \$0.3 million to \$8.2 million for the year ended December 31, 2013, from \$8.0 million for the year ended December 31, 2012, representing a 4% increase. The cost of providing maintenance and support services consists largely of personnel related expenses. The increase in cost of maintenance was principally attributable to an increase of \$0.3 million of personnel costs

associated with the continued growth in our customer maintenance and support function commensurate with maintenance and support revenue growth. Maintenance and support gross margins were 82% and 80% for the years ended December 31, 2013 and 2012, respectively. The improvements in gross margins was attributable to the scaling of existing resources in supporting the growth in our maintenance and support customer base.

Gross profit. Gross profit increased \$17.7 million to \$101.7 million for the year ended December 31, 2013, from \$84.0 million for the year ended December 31, 2012, representing a 21% increase. The increase in overall gross profit was principally attributable to a 23% increase in total revenue.

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Operating expenses:

(Dollars in thousands)	For the Year Ended December 31,				Variance \$	Variance %	
	2013	2012	Amount	Percentage of total revenue		Amount	Percentage of total revenue
Selling and marketing	\$39,478	27 %	\$29,987	25 %	\$9,491	32 %	%
General and administrative	24,046	17 %	18,228	15 %	5,818	32 %	%
Research and development	32,467	22 %	27,611	23 %	4,856	18 %	%
Acquisition-related	2,173	2 %	—	— %	2,173	— %	%
Total operating expenses	\$98,164	68 %	\$75,826	64 %	\$22,338	29 %	%

Selling and marketing. Selling and marketing expenses increased \$9.5 million to \$39.5 million for the year ended December 31, 2013 from \$30.0 million for the year ended December 31, 2012, representing a 32% increase. The increase was principally attributable to an increase of \$8.4 million in sales and marketing personnel costs as a result of an increase in headcount to support our current and future growth objectives and higher commission expenses resulting from higher revenue levels. Included in the increase in personnel costs is an increase of \$1.5 million of noncash share based compensation. In addition, there was an increase of \$1.1 million of non-personnel related expenses primarily a result of \$0.8 million of overhead and other expenses and \$0.3 million related to an increase in sales and marketing events.

General and administrative expenses. General and administrative expenses increased \$5.8 million to \$24.0 million for the year ended December 31, 2013, from \$18.2 million for the year ended December 31, 2012, representing a 32% increase. The increase was principally attributable to an increase of \$3.9 million in general and administrative personnel costs as a result of an increase in headcount to support our current and future growth objectives. Included in the increase in personnel costs is an increase of \$3.1 million of noncash share based compensation. In addition, there was an increase of \$1.9 million of non-personnel related expenses which included an increase of \$0.8 million of overhead and other expenses, an increase of \$0.6 million in professional fees and an increase of \$0.5 million of bad debt expense.

Research and development expenses. Research and development expenses increased \$4.9 million to \$32.5 million for the year ended December 31, 2013 from \$27.6 million for the year ended December 31, 2012, representing a 18% increase. The increase in research and development expenses was principally attributable to an increase of \$5.2 million in personnel costs as a result of increased headcount to support work on new projects and initiatives, offset by an increase of \$1.1 million of personnel costs that were capitalized related to the development of our cloud-based service offerings. Included in the increase in personnel costs is an increase of \$1.2 million of noncash share based compensation. In addition, there was an increase of \$0.7 million of overhead and other expenses.

Acquisition-related expense: Acquisition-related expenses were \$2.2 million for the year ended December 31, 2013 consisting primarily of advisory and legal fees related to the acquisition and integration of SignalDemand as well as the planned acquisition and integration of Cameleon.

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Other expense, net:

(Dollars in thousands)	For the Year Ended December 31,			
	2013		2012	
	Amount	As a percentage of total revenue	Amount	As a percentage of total revenue