

PROS Holdings, Inc.  
Form 10-K  
March 03, 2014  
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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, 2013

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

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.

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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 \$700.5 million as of June 28, 2013 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, 2014, there were outstanding 29,186,722 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 2014 Annual Stockholders Meeting, to be filed within 120 days of the end of the fiscal year ended December 31, 2013, 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 accounting principles generally accepted 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 negation 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 more than two decades 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. Since inception, PROS has completed over 700 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. Our principal executive offices are located at 3100 Main Street, Suite 900, Houston, Texas 77002. Our telephone number is (713) 335-5151. Our website is [www.PROS.com](http://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.

In December 2013, we acquired SignalDemand, Inc. ("SignalDemand"), an optimization software company headquartered in San Francisco, with approximately 40 professionals, for total cash consideration of \$13.5 million. This acquisition broadens our offering for companies in resource-based and commodity-driven industries, with products designed to help companies better serve their customers in volatile markets with greater confidence and agility. Through its SaaS-based solutions, SignalDemand processes thousands of variables to deliver real-time recommendations to help companies make price and mix decisions across products, customers and channels.

In January 2014, we acquired approximately 90% of Cameleon Software SA, a publicly traded French societe anonyme ("Cameleon") in an all-cash transaction valued at approximately €24 million (U.S. \$33 million), net of cash acquired.

Our industry

Data-driven decision making is an important driver of business performance. The high volume, velocity and variety of data that demand cost-effective, innovative forms of information processing, commonly referred to as "big data," available to companies is growing rapidly. For example, IDC, a global IT market intelligence provider, expects the worldwide big data

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technology and services market to grow at a 27% compound annual growth rate – with revenues reaching \$32.4 billion in 2017. 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 accelerate the demand for big data solutions. These forces include increasingly complex markets and business models, uncertain demand for products and services, volatile costs, greater sophistication of purchasers, proliferation of competitive alternatives, and exponentially increasing enterprise and market data. We believe the market for big data science and technology is a large and emerging 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 most likely to buy, offers most likely to result in a closed deal, and pricing that will help win a customer's business. 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. The data science embedded in our solutions provides 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 allows us to handle the processing and database requirements of sophisticated and large customers, including customers 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 have both a single code base and a single integrated database, and currently operate in some of the largest, most complex and demanding information technology environments. In addition to our professional services team, we also work with a team of globally diverse partners who have been certified to implement PROS solutions.

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 customers generally purchase the related maintenance and support services on an annual basis. Our license agreements provide customers with the right to use licensed solutions within a specific license scope, including but not limited to revenue, geography, and business unit.

We also offer some of our solutions as software-as-a-service ("SaaS"). These SaaS offerings provide customers with hosted solutions rather than traditional on-premise solutions and allow our customers to reduce infrastructure and installation requirements. This provides an alternative to our perpetual license sales model. We offer both single tenant (private cloud) and multi-tenant solutions under our SaaS model. We offer these solutions via multi-year subscriptions with pricing generally based on the number of users or amount of revenue managed by our software. Through fiscal 2013, SaaS revenue has not been material to our consolidated financial results.

Our license and implementation revenue comprised 68%, 66% and 65% of our total revenue in fiscal 2013, 2012 and 2011, 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 correct poor performance and take advantage of time-sensitive opportunities.

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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 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 sales reps to better match offers to each customer's unique perception of value.

Rebate Optimizer streamlines the rebate agreement creation, analysis and approval processes to accelerate sales growth. By providing a comprehensive analysis of rebates before they are put in place, sales and marketing organizations have insight into the expected financial impact before they are negotiated, leading to higher revenue and more profitable deals.

Sales Optimizer provides sales people with a 360-degree view in 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 they are able to make more informed decisions.

Step provides customer and product-specific pricing and discounting recommendations in a multi-tenant, SaaS-based application. Step is designed to meet the scope and scale of needs for mid-size companies, and mid-size divisions of enterprise organizations.

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.

- Automate quoting and pricing approval workflow to ensure consistency and auditability.

## Predictive Analytics and Optimization Solutions for Resource-driven and Commodity-based Companies

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

- SignalDemand EnterpriseOptimizer™ enables manufacturers to optimize business performance across the supply and demand sides of their organization to improve 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.

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

- SignalDemand 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.

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



SignalDemand 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.

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### Big Data Solutions for Revenue Management

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. 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.
- Increase customer loyalty by providing the right products and services to the right customer at the right time.

PROS big data solutions for revenue management include the following solutions:

- PROS Analytics for Airlines identifies hidden revenue leaks and opportunities.
- PROS Revenue Management manages passenger demand with either leg- or segment-based revenue management.
- 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 datacenters.
- PROS Stratus is designed specifically for low-cost airlines that compete in price-sensitive, ultra-competitive markets. It recommends load factor targets and adjusts inventory, which allows airlines to improve both ticket and ancillary revenue streams.
- PROS Cruise Pricing and Revenue Management allows customers to understand their consumers price sensitivities, track competitor behavior, and quickly set prices and availability.
- PROS Hotel Revenue Management helps customers simplify, accelerate, and improve pricing decision making.

### 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.

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**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 leading 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. PROS also provides certified content for integration with SAP ERP and Oracle e-Business Suite 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 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

Our services include implementation, consultation, training, maintenance, and cloud-based services.

### Implementation

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. In addition, 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 and have implemented PROS 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 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 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 and support enrollment entitles a customer to solicit support through a web-

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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 32%, 34%, and 35% of our total revenue in 2013, 2012 and 2011, respectively.

### Cloud-based Services

We offer cloud-based services to allow customers to deploy our big data software solutions without any significant investment in hardware.

### Customers

We sell our software solutions to customers in the manufacturing, distribution, services, and travel industries. These industries include various verticals such as chemical, high tech, consumer goods, cargo, food, food service, equipment rental, hotels, industrial, medical, mill products, petroleum, agri-business, airlines and service parts. Our customers are generally large global enterprises, although we have customers that are smaller in scope of operations. In each of 2013, 2012 and 2011, 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. Our backlog 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 \$175.1 million as of December 31, 2013 as compared to backlog of approximately \$146.5 million as of December 31, 2012. The portion of our backlog as of December 31, 2013 not reasonably expected to be recognized as revenue within the next twelve months is estimated to be approximately \$58.9 million.

### Sales and marketing

We sell and market our software solutions primarily through our direct global sales force and indirectly through resellers. 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.

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### 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, 2013, we have offices in London, England; San Francisco, California; Munich, Germany; and Austin, Texas. We also conduct development activities predominantly in 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.

Approximately 55%, 56%, and 64% of our total revenue came from customers outside the United States for the years ended December 31, 2013, 2012 and 2011, respectively. Our business, financial condition and results of operations could be adversely impacted by 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 14 of the Notes to the Consolidated Financial Statements.

### Competition

The market for big data applications that optimize sales, pricing, quoting, rebates, and revenue management is competitive, fragmented and rapidly evolving. We believe our customers consider 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.
- Vendor viability.

We compete with a number of larger and smaller companies. In the future, we believe our competition will increase as more companies move into our market segment, and will increase as we expand into adjacent market segments. We believe we are able to compete successfully due to our long history of providing prescriptive software solutions, the scope of our offerings, the size and strength of our install base, the flexibility and scalability of our architecture, and our commitment to solution innovation and customer success.

Several large enterprise application providers, such as JDA Software, Oracle and SAP, have also developed offerings that include limited pricing and revenue management functionality. JDA Software and Oracle entered the market primarily through JDA's acquisition of Manugistics and Oracle's acquisitions of Siebel Systems and Big Machines, respectively, and SAP resells products of one of our competitors. We believe these vendors 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. These vendors may seek to compete on price and by bundling their pricing and revenue management applications with other enterprise applications. We believe the market for pricing software is beginning to converge with another big data application, sales enablement software, as sales personnel are increasingly becoming the day to day users of both types of software. We believe this convergence will accelerate in



the future. For example, we released our Rebate Optimizer solution in 2012 to further sales enablement. As a result of this convergence, we have begun, and expect to continue, to compete with companies in sales enablement such as configure, price and quoting ("CPQ") software and rebate management. We believe that we distinguish ourselves from these vendors through

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the breadth and depth of the functionality we offer, the robust integration and configuration capabilities of our solutions, and our proven ability to provide high-value science-based optimization software to our global customer base across multiple industries.

In addition, a number of other vendors provide pricing and revenue management software for specific industries. In the hotel industry, we compete with IDEaS—a SAS Company and Easy RMS, among others. In the airline industry, we compete with Sabre Airline Solutions and Lufthansa Systems among others. We do not compete in the retail industry, where vendors include IBM, JDA Software, Oracle and SAP. Oracle, SAP and IBM entered the retail market through their acquisitions of ProfitLogic, Khimetrics and DemandTec, respectively.

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.

### 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. We rely primarily on a combination of patent, trademark, copyright, trade secret, confidentiality procedures, contractual provisions and other similar measures to protect our proprietary information. As of the date of this filing, we have nine issued U.S. patents and 27 pending U.S. patent applications. In addition, we have two registered trademarks and two pending U.S. trademark applications. We have not pursued patent protection in any foreign countries. Due to the rapidly changing nature of applicable technologies, we believe that the improvement of existing solutions, reliance upon trade secrets and unpatented proprietary know-how and development of new solutions are generally more advantageous than patent and trademark protection.

### Research and development

We believe our innovation with respect to our software solutions is a foundation of our business and have made substantial investments in research and development as a part of this commitment. We also believe that our long-term investment in the scientific analysis of pricing, revenue management and sales 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 2013, 2012 and 2011, we invested \$32.5 million, \$27.6 million and \$25.7 million, respectively, in research and development to enhance our existing portfolio of solutions and services and to develop new solutions and services. 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 utilize third-party contractors in Bolivia, China, Colombia and India.

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, 2013, we had 848 full time personnel which included 652 employees and 196 outsourced personnel, an increase of 20% from December 31, 2012. 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](http://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](http://www.sec.gov). You may also obtain copies of any of our reports filed with, or furnished to, 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 11, 2013.

### 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 anticipated, and our operating results could be adversely affected.

As we expand our software product portfolio, we will 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 our latest products to compete with sales enablement, configure-price-quote and rebate management software, and through Cameleon we now compete in with configure-price-quote software. Large companies in these spaces may have advantages over us because of their longer operating histories, greater brand name recognition, larger customer bases, broader product portfolios, 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 research and develop new products and enhance versions of our products. In addition, we introduced new releases of certain 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 will be diminished and the effect on our operating results may be particularly acute because of the significant research, 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 market for this software develops more slowly than we expect, our business will 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, pricing and revenue management software market is still evolving, and it is uncertain whether this software will achieve and sustain high levels of demand and market acceptance. Our success will depend on the willingness of businesses in the manufacturing, distribution, services, and travel industries to use sales, pricing and revenue management software.

Some businesses may be reluctant or unwilling to implement sales, pricing and revenue management 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 pricing processes, they may not select our sales, pricing and revenue management software solutions because they previously have made investments in internally developed sales, pricing and revenue management 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 one or more 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, pricing and revenue management software, the sales, pricing and revenue management 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, pricing and revenue management 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 software solutions and could result in pressure to price our software 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, fragmented and rapidly evolving. Our software solutions compete with both solutions developed internally by businesses as well as those solutions offered by competitors. 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 recent acquisition of BigMachines. A number of our current and potential competitors have larger installed bases of users, longer operating histories and greater name recognition than we

have. In addition, many of these companies have significantly greater financial, technical, marketing, service and other 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 additional software solutions and related services on terms favorable to us. We do not know how our competition will 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 solution, services and maintenance pricing due to competitive pressures, our margins will be reduced

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and our operating results will be adversely affected. We cannot provide assurance that we will be able to compete successfully against current or future competitors or that competitive pressures will not materially and adversely affect our business, financial condition and operating results.

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 generally have to educate our potential customers about the use and benefits of our solutions, which can require significant time and expense without the ability to realize any revenue. During this sales cycle, we expend substantial resources with no assurance that a sale will ultimately result. The length of a customer's sales cycle depends on a number of factors, many of which we may not be able to control. These factors include the customer's product and technical requirements and the level of competition we face for that customer's business. Any unexpected lengthening of the sales cycle or failure to secure anticipated orders would 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 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 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 will 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 would seriously harm our business, operating results and financial condition.

We recently completed our first two acquisitions, 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 recently completed our first two acquisitions, and in the future may continue to enter into acquisitions of 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 will make in the future will provide us with the benefits or achieve the results we anticipated in 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;
- potential 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
- potential unknown liabilities associated with acquired businesses.



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

In January 2014, we acquired approximately 90% of Cameleon. Since we own less than a 100% interest in a publicly traded company, we face additional risks, including being subject to French securities regulations applicable to public companies in France, NYSE Euronext rules, and being unable to exert full control. Although we intend to continue to purchase equity interests

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in Cameleon to obtain a 100% interest, there is no guarantee that we will be successful. In December 2013, we acquired SignalDemand. SignalDemand was our first acquisition. The purchases of Cameleon and SignalDemand have required and will continue to require significant management time and attention during the acquisition and integration process.

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 expect to grow our infrastructure to address our acquisitions of SignalDemand and Cameleon and other potential additional business combinations. Our growth will continue to 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, by way of additional business combinations, 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 of manufacturing, distribution, services, and travel would 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 market and 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 will 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 our target industries;
- it may be more difficult than we currently anticipate to increase our customer base in our target industries;
- it may take more time than we currently anticipate to train our personnel in the implementation of our software solutions in our target industries; and
- our limited experience implementing our software solutions in certain of our target industries.

Our revenue growth has been derived from customers in the manufacturing, distribution, services, and travel industries. Our revenue growth is highly dependent upon continued growth of market acceptance in these industries, and there can be no assurance our solutions will achieve or sustain widespread acceptance among customers in these industries. Failure to expand market acceptance of our solutions in the manufacturing, distribution, services industries or to maintain sales in the manufacturing, distribution, services, and travel industries would 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 percentage-of-completion, 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 project for a large customer or

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a number of customers is substantially delayed or canceled, our ability to recognize the associated revenue and our operating results would 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 will be adversely affected.

Our future success depends upon the performance and service of our executive officers and other key sales, 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 will 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 will 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 will 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 things, 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 is often accompanied by third party hardware purchases and other capital commitments, involves 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, quarterly or annual operating results and financial condition.

Periodic fluctuations in the U.S. Dollar and other currencies, corporate profits, lower spending, the availability of credit, 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. Our customers and prospects may experience consolidation or bankruptcies in their industries which may result in project delays or cancellations. We are unable to predict the strength or duration of current market conditions or effects of consolidation. Uncertainties in anticipated spending levels or further consolidation may adversely affect our business, financial condition and results of operations.

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, one or more of 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 any of these customers could have a material adverse effect on the collectability of our accounts receivable, liquidity and future operating results.

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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 to become insolvent or otherwise 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 global growth is subject to economic and political risks.

We are a global company with customers around the world. In 2013, approximately 55% of our revenues were attributable to activities outside the United States. Our operations are subject to the effects of global competition. They are also affected by local economic environments, including inflation, recession and currency volatility. Political changes, some of which may be disruptive, may interfere with our customers and our activities in a particular location.

Our revenue recognition policy may cause any decreases in sales not to be reflected in our revenue immediately.

The period over which we recognize license and implementation revenue for an implementation depends on the number of licensed software solutions and the scope and complexity of the customer's deployment requirements which may range from six months to several years. As a result, a significant 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.

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 and, for implementation projects accounted for on a percentage-of-completion method, our ability to estimate the effort required to complete our implementation projects, which may be difficult to estimate.

We evaluate our performance obligations and associated contractual terms for each new customer arrangement. Our conclusions with regard to the application of applicable financial accounting standards directly impact the timing of revenue recognition. For the majority of our software license and implementation arrangements, we recognize revenue over the period during which such services are performed using the percentage-of-completion method.

We generally recognize revenue from our software licenses and implementation services over the period during which such services are performed using the percentage-of-completion method. The length of this period depends on the number of licensed software solutions and the scope and complexity of the customer's deployment requirements. Under the percentage-of-completion method, the revenue we recognize during a reporting period is based on the resources expended during the reporting period as compared to the estimated total resources required to implement our software solutions. If we are unable to accurately estimate the overall total man-days required to implement our software solutions, such inaccuracies could have a material effect on the timing of our revenue. Any change in the timing of revenue recognition as a result of inaccurate estimates could adversely impact our quarterly or annual operating results.

New accounting standards, or changes in existing financial accounting standards or practices, including those related to revenue recognition, may adversely affect our results of operations.

GAAP in the United States are subject to interpretation by the Financial Accounting Standards Board, the American Institute of Certified Public Accountants, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. We adopted new accounting standards for multiple-element arrangements effective from January 1, 2010 and standard setters have proposed further changes to revenue recognition accounting standards, among others.

Changes in existing accounting rules or practices, new accounting pronouncements, or varying interpretations of current accounting pronouncements, in particular those related to revenue recognition, could have a significant adverse effect on our results of operations or the manner in which we conduct our business. Further, such changes could potentially affect our reporting of transactions completed before such changes are effective. A change in existing financial accounting standards or practices may even retroactively adversely affect previously reported transactions.

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The Financial Accounting Standards Board 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 GAAP and those that are required to follow International Financial Reporting Standards ("IFRS"). These projects may result in different accounting principles under 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. A change in accounting principles from GAAP to IFRS may have a material impact on our financial statements should IFRS be incorporated into the financial reporting system for U.S. companies.

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

Maintenance and support agreements are typically for a term of one to two years. Historically, maintenance and support revenue has represented a significant portion of our total revenue, including approximately 32%, 34% and 35% of our total revenue for the years ended December 31, 2013, 2012 and 2011, respectively. If our customers choose not to renew their maintenance and support 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 material portion of our license and implementation arrangements were priced on a fixed-fee basis, and we may continue to price implementation arrangements on a fixed-fee basis in the future. If we underestimate the amount of effort required to implement our software solutions, our profitability could be reduced. Moreover, if the actual costs of completing the implementation exceed the agreed upon fixed price, we would incur a loss on the arrangement.

If we fail to develop or acquire new functionality to enhance our existing software solutions, we will 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 will compete with, and may reduce the demand for, our software solutions. We cannot provide assurance that we will 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.

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,

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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, but we have found defects in our software solutions from time to time. We may discover additional defects in the future, and such defects could be material. We may not be able to detect and correct defects or errors before the final implementation of our software solutions. Consequently, we or our customers may discover defects or errors after our software solutions have been implemented. We have in the past issued, and may in the future need to issue, corrective releases of our solutions to correct defects or errors. The occurrence of any defects or errors could result in:

- lost or delayed market acceptance and 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 will continue to be available on acceptable terms. In addition, the insurer may deny coverage on any future claim. 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 will be diverted from our operations.

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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:

- 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 license 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 will 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 will 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 advisors 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.

As of the date of this filing, we have nine issued U.S. patents and 27 pending U.S. patent applications. We have not pursued patent protection in any foreign countries. Our pending patent applications may not result in issued patents. 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

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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 will be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition.

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 inventions claimed in our 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 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 will 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 suits 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 licensors 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 will 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. Over the last several years, we derived a significant portion of our revenue from customers outside the United States. For the year ended December 31, 2013, 2012 and 2011, approximately 55%, 56% and 64% of our total revenue, respectively, was derived from outside the United States. We may not be able to maintain or increase international market demand for our solutions. We have customers in over 50 countries, and have operations in the United Kingdom and Germany (through wholly-owned subsidiaries). In 2013, we began operating in Canada (through the formation of a wholly-owned Canadian subsidiary). During 2013, we continued to grow our operations in the United Kingdom, Germany, and Canada. The financial impact of our international operations to our overall

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business has been insignificant to date. We expect our international operations to grow as the result of acquiring control over Cameleon in January 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 countries;
- 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;
- 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;
- if more contracts become denominated in local currency, fluctuations in exchange rates; and
- tariffs and trade barriers, import/export controls and other regulatory or contractual limitations on our ability to sell or develop our solutions in certain foreign markets.

In addition, as a majority shareholder of Cameleon, we face several additional risks, including adverse foreign currency fluctuations, being subject to French securities regulations applicable to publicly traded companies in France, NYSE Euronext rules, and, until such time as Cameleon becomes a wholly owned subsidiary of ours, being unable to exert full control.

If we continue to expand our business globally, our success will 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, almost all 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 are subject to losses from fluctuations in foreign currency exchange rates.

Security breaches, cyber attacks or fraudulent activity could result in damage to our reputation or operations. A security breach or cyber attack of either our computer systems or our third party cloud service provider systems could interrupt or damage our operations or harm our reputation. 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. If we were to experience a security breach or cyber attack, we could be required to incur substantial costs and liabilities, including:

- expenses to rectify the consequences of the security breach or cyber attack;
- liability for stolen assets or information;
- costs of repairing damage to our systems;
- increased costs of cyber security protection; and
- damage to our reputation causing customers and investors to lose confidence in us.

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 will 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



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traditional software products which could impact our revenue and/or operating margins 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 interoperate 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 in Houston, Texas. Our headquarters are located in Houston, Texas, from which we base our operations. 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.

Our ability to raise capital in the future may be limited, and our failure to raise capital when needed could prevent us from executing our strategy.

We believe that our existing unrestricted cash and cash equivalents, our availability under our revolving credit facility with Wells Fargo, and our cash flow from future operating activities will be sufficient to meet our anticipated cash needs for the next twelve months and the foreseeable future. The timing and amount of our working capital and capital expenditure requirements may vary significantly depending on numerous factors, including the other risk factors described herein. In addition, we may require additional capital to fund acquisitions. Additional capital may not be available on terms favorable to us, or at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to invest in our business growth could be limited. Any additional capital raised through the sale of equity or convertible debt securities may dilute your percentage ownership of our common stock. Furthermore, any new debt or equity securities we issue could have rights, preferences and privileges superior to our common stock. If we raise capital by issuing convertible debt or equity securities, our existing stockholders may be diluted and earnings per share may decrease. Capital raised through debt financings could require us to make periodic interest payments and could impose additional restrictive covenants on the conduct of our business that make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions.

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. Unless the research and experimentation tax credit is reinstated for 2014, we will record federal income taxes in 2014 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 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 Sarbanes-Oxley, our market price may be adversely affected.

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Section 404 of the Sarbanes-Oxley 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.

In addition, in May 2013, the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) issued a new version of its internal control framework, which will be effective December 15, 2014. We have not yet developed a plan to integrate the 2013 edition of the COSO framework into our assessment of our internal controls over financial reporting. We may determine, following implementation of the 2013 COSO framework, that deficiencies exist in our internal controls over financial reporting, which may adversely affect our financial results and result in a loss of investor confidence in the reliability of our financial statements.

Risks relating to ownership of our common stock:

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

The market price for our common stock 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 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 will incur substantial costs and our management’s attention will 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.

In addition, the market price of our common stock may fluctuate in response to the market volatility of Cameleon, a publicly traded French societe anonyme of which we own an approximately 90% stake.

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. For the quarterly period ended December 31, 2013, the average daily trading volume of our common stock on the New York Stock Exchange was 75,136 shares. 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 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.

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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.

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 and for other general corporate purposes. Any payment of future dividends will be at the discretion of our board of directors and will 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. Investors seeking cash dividends should not purchase our common stock.

### Item 1B. Unresolved Staff Comments

None.

### Item 2. Properties

Our headquarters are located in Houston, Texas, where we lease approximately 90,000 square feet of office space. As of December 31, 2013, we also had small regional offices in Austin, Texas; San Francisco, California; London, United Kingdom and Munich, Germany. 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 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, 2012		
First Quarter	\$14.63	\$20.47
Second Quarter	\$14.60	\$20.12
Third Quarter	\$12.75	\$19.76
Fourth Quarter	\$16.56	\$20.62
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

On February 24, 2014 there were 65 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, 2013 with respect to compensation plans under which our equity securities are authorized for issuance. For additional information on our equity compensation plans, see Note 10 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))
Equity compensation plans approved by security holders	3,893,482	\$ 10.79	466,611
Equity compensation plans not approved by security holders	—	—	—
Total	3,893,482	\$ 10.79	466,611

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.

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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 31, 2008, and ending December 31, 2013. 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, 2008, 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.

	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013
PRO	\$180.00	\$198.09	\$258.78	\$318.09	\$693.91
S&P 500	\$123.45	\$139.23	\$139.23	\$157.90	\$204.63
NASDAQ Computer Index	\$170.83	\$200.62	\$201.60	\$226.00	\$299.19

#### 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 2013, we did not make any purchases of our common stock under this program. As of December 31, 2013, \$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, 2013.



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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, 2013 are derived from the Consolidated Financial Statements of PROS Holdings, Inc. 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,				
	2013	2012	2011	2010	2009
Selected consolidated statement of operations data:					
Total revenue	\$144,837	\$117,791	\$96,639	\$71,045	\$68,783
Gross profit	101,702	84,006	70,337	50,653	50,138
Income (loss) from operations	3,538	8,180	8,775	(4,112)	)7,367
Net income (loss)	3,446	4,966	6,350	(1,931)	)5,516
Net earnings (loss) attributable to common stockholders	\$3,446	\$4,966	\$6,350	\$(1,931)	)\$5,516
Net earnings (loss) attributable to common stockholders per share:					
Basic	0.12	0.18	0.24	(0.07)	)0.21
Diluted	0.11	0.17	0.23	(0.07)	)0.21
Weighted average number of shares:					
Basic	28,004	27,366	26,832	26,090	25,711
Diluted	30,114	28,420	27,762	26,090	26,431
Selected consolidated balance sheet data:					
Cash and cash equivalents, unrestricted	\$44,688	\$83,558	\$68,457	\$55,845	\$62,449
Working capital	72,127	72,950	66,334	52,326	50,755
Total assets	179,828	146,479	121,259	98,128	85,329
Long-term obligations	3,523	3,334	2,976	1,461	2,418
Total stockholders’ equity	\$111,303	\$88,669	\$73,943	\$59,503	\$55,039

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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 that are designed to help companies outperform in their markets by using big data to sell more effectively. We apply more than two decades 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, manufacturing and revenue management. We also provide professional services to implement our solutions, consultation, training, customer support and hosting and cloud-based services. Since inception, PROS has completed over 700 implementations of our solutions, across more than 40 industries in more than 55 countries.

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 application 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 back office. In addition to organic growth, we may 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 other strategic growth opportunities.

Managing our continued growth. Since 2010, 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 anticipated.

Uncertain global economic conditions. Global economic conditions have been uncertain in recent years. The uncertain economic conditions have had and may have a negative impact on the adoption of big data software and may increase the volatility in our business. Due to the uncertain economic conditions, we continue to experience long 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. We believe our solutions provide value to our customers during periods of economic growth as well as in recessions, but the extent to which the current economic conditions will further affect our business is uncertain.

Variability in revenue. Our historical revenue recognition policy provides visibility into a significant portion of our revenue in the 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. We evaluate our contract terms and conditions as well as our implementation performance obligations in making our revenue recognition determination for each contract. 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 service offerings may result in the deferral of revenue over the contractual term, whereas growth in perpetual license arrangements that meet the criteria for separation may result in the recognition of license revenue on delivery, provided revenue recognition criteria are met. Our revenue could also vary based on our customer mix and customer geographic location. We sell

our software solutions to customers in the manufacturing, distribution, services and travel industries. From a geographical standpoint, approximately 55%, 56%, and 64% of our consolidated revenues were derived from customers outside the United States for each of the years ended December 31, 2013, 2012 and 2011, respectively. Our contracts with customers outside the United States are predominately denominated in U.S. dollars. The economic and political environments around the world could change our concentration of revenue within industries and across geographies.

Income taxes. For the year ended December 31, 2013, our effective income tax rate was (5)% as compared to the federal rate of 34%. Our effective tax rate is lower than the federal rate due to the Research and Experimentation (“R&E”) tax

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credit, partially offset by nondeductible share based compensation and acquisition-related expenses. The tax benefit related to the R&E tax credit was greater for the year ended December 31, 2013 as compared to 2012 due to the fact that Congress passed the American Taxpayer Relief Act of 2012 in January 2013 which made the R&E tax credit retroactive to January 1, 2012. As a result, the benefit of the 2012 R&E tax credit was recorded in the first quarter of 2013.

### Discussion of consolidated financial information

#### Revenue

Our revenue is derived from the licensing and implementation of software solutions and associated software maintenance and support, and professional services. To a lesser extent, our revenue includes nonsoftware related hosting and cloud services. Our arrangements with customers typically include: (a) license fees for the use of our solutions either in perpetuity or over a specified term (b) professional services for configuration, implementation and training services and (c) maintenance and support fees related to our solutions, including technical support and software updates. 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 using 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.

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.

License and implementation revenue. We derive the majority of our license and implementation revenue from the sale of perpetual licenses and related implementation services. We evaluate the nature and scope of implementation services for each arrangement, and if we determine that professional services revenue should not be accounted for separately from license revenue, we recognize the license and implementation revenue together as the services are performed using the percentage-of-completion method provided other revenue recognition criteria have been met. We also recognize revenue associated with billable expenses when the expenses are incurred.

We have historically recognized revenue from the majority of our software sales on a percentage-of-completion basis, which has provided visibility into a significant portion of our revenue in the near-term quarters, although the actual timing of recognition of revenue on these types of arrangements will vary based on the nature and requirements of our contracts. Under percentage-of-completion method of accounting, our revenue recognition generally begins when efforts are expended during the implementation, which helps alleviate pressure to enter into license agreements at the end of any particular quarter as we are typically not able to recognize the corresponding revenue during the period in which the agreement is signed except to the extent we provide implementation services during the period. As a result of our revenue recognition policy, revenue from license arrangements is generally recognized over the implementation period, which typically ranges from four to fifteen months.

The percentage-of-completion computation 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, under our 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 costs are deferred until the delivery of the licensed solution and recognized ratably over the remaining contractual license term. Revenue from term license agreements, which are included in license and implementation revenue in the Consolidated Statements of Comprehensive Income, represented 3.6%, 4.8%, and 5.8% of total revenue for the years ended December 31, 2013, 2012 and 2011 respectively.

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For arrangements that include hosting and cloud-based services, we allocate the arrangement consideration between the hosting service and other elements and recognize the hosting fee ratably beginning on the date the customer commences use of our services and continuing through the end of the contractual hosting term. Revenue from hosting and cloud-based services, which is included in license and implementation revenue in the Consolidated Statements of Comprehensive Income, represented 2.4%, 2.6% and 2.3% of total revenue for the years ended December 31, 2013, 2012 and 2011 respectively.

Maintenance and support revenue. We generate maintenance and support revenue from the sale of maintenance and support services on our software solutions. Our maintenance and support arrangements are sold with terms generally ranging from one to two years. Maintenance and support fees are invoiced to our customers either monthly, quarterly or on an annual basis. Maintenance and support revenue includes customer support and the right to unspecified software updates and enhancements on a when and if available basis. Approximately 98% and 97% of the maintenance and support arrangements by our customers were renewed for the years ended December 31, 2013 and 2012, respectively.

### Cost of revenue

Cost of license and implementation revenue. Cost of license and implementation revenue includes those costs related to the implementation of our solutions, 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) hosting and cloud-related expenses, (e) amortization of capitalized software for internal use, and (f) an allocation of depreciation, facilities and IT support costs and other costs incurred in providing implementation services to our customers. License and implementation costs may vary from quarter to quarter depending on a number of factors, including the amount of implementation services required to deploy our solutions.

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

### Operating expenses

Selling, marketing, general and administrative. Selling, marketing, general and administrative expenses principally consist of (a) personnel costs, which include our employees and third party contractors and sales commissions related to selling, marketing and administrative 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) accounting, legal and other professional fees and (f) 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 third party contractors, 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 expense, and (c) an allocation of depreciation, facilities and IT support costs and other costs.

### Income taxes

We are subject to income taxes in the United States and abroad, 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. At December 31, 2013, our deferred tax assets consisted primarily of temporary differences related to noncash share based compensation and acquired net operating losses. We assess the likelihood that deferred tax assets will be realized and we recognize a valuation allowance if it is more likely than not that some portion of the deferred tax assets will not be realized. This assessment requires judgment as to the likelihood and amounts of future taxable income. Although we believe that our tax estimates are reasonable, the ultimate tax determination involves significant judgment that is subject to audit by tax authorities in the ordinary course of business.

We record our deferred tax assets and liabilities at an amount based upon a U.S. federal income tax rate of 34% and appropriate statutory tax rates of various state and local jurisdictions in which we operate. If our tax rates change in

the future, we may adjust our deferred tax assets and liabilities to an amount reflecting those income tax rates. Any change will affect the provision for income taxes during the period that the determination is made. Our effective tax rate was (5)%, 38% and 26% for the years ended December 31, 2013, 2012 and 2011, respectively. Our federal effective tax rate has historically been lower than the federal rate of 34% largely due to the application of the R&E tax credit. In January 2013, Congress passed the American Taxpayer Relief Act of 2012 which, among other things, made the R&E

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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.

As a part of our accounting for business combinations, intangible assets are recognized at fair values and goodwill is measured as the excess of consideration transferred over the net estimated fair values 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; however, deferred taxes have been recorded for non-deductible amortization expenses as a part of the accounting for business combinations.

Deferred revenue and unbilled receivables

For our license and implementation service fees, we invoice and are paid based upon contractual payment schedules in each customer arrangement which may 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.

Results of operations

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

Revenue:

(Dollars in thousands)	For the Year Ended December 31,				Variance \$	Variance %
	2013	2012	As a percentage of total revenue	As a percentage of total revenue		
License and implementation	\$98,749	68 %	\$77,656	66 %	\$21,093	27 %
Maintenance and support	46,088	32 %	40,135	34 %	5,953	15 %
Total	\$144,837	100 %	\$117,791	100 %	\$27,046	23 %

License and implementation. License and implementation 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 license and implementation revenue was principally the result of a 12% increase in the number of implementations from 133 to 149, which increased the number of man-days expended by 24%, and a 3% increase in the average revenue recognized per man-day as compared to the corresponding period of 2012. The increase in average revenue recognized per man-day was due predominantly to an increase in license revenue recognized upon software delivery in 2013 compared to the corresponding period in 2012. The average revenue per man-day can vary based on the relative relationship between license and implementation revenue and on the amount of license revenue recognized upon software delivery.

License and implementation revenue includes revenue from both term licenses and hosting and our cloud-based service offerings. Revenue from term licenses represented approximately 3.6% and 4.8% of total revenue for the year ended December 31, 2013 and 2012, respectively. Revenue from hosting and our cloud-based service offerings represented approximately 2.4% and 2.6% of total revenue for the year ended December 31, 2013 and 2012, respectively.

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 purchasing maintenance and support services.

Total Revenue. Total revenue increased \$27.0 million to \$144.8 million for the year ended December 31, 2013 from \$117.8 million for the year ended December 31, 2012, representing a 23% increase. Revenue from the manufacturing, distribution and services ("MDS") industries increased \$16.2 million to \$82.4 million for the year ended December 31, 2013 from \$66.2 million for the year ended December 31, 2012, representing a 25% increase. The increase in revenue from MDS was attributed principally to a 29% increase in license and implementation revenue as a result of both increased backlog revenue recognized from prior

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year contracts and revenue recognized from contracts executed in 2013 and an increase of 15% in maintenance and support revenue. Revenue from Travel increased \$10.8 million to \$62.4 million for the year ended December 31, 2013 from \$51.6 million for the year ended December 31, 2012 representing a 21% increase. The increase in revenue from Travel was attributed principally to a 25% increase in license and implementation revenue as a result of both increased backlog revenue recognized from prior year contracts and revenue recognized from contracts executed in 2013 and an increase of 15% in maintenance and support revenue associated with implementations completed in 2013.

Cost of revenue and gross profit:

(Dollars in thousands)	For the Year Ended December 31,				Variance \$	Variance %	
	2013	2012	As a percentage of related revenue	As a percentage of related revenue			
Cost of license and implementation	\$34,896	35	% \$25,830	33	% \$9,066	35	%
Cost of maintenance and support	8,239	18	% 7,955	20	% 284	4	%
Total cost of revenue	\$43,135	30	% \$33,785	29	% \$9,350	28	%
Gross profit	\$101,702	70	% \$84,006	71	% \$17,696	21	%

Cost of license and implementation. Cost of license and implementation revenue increased \$9.1 million to \$34.9 million for the year ended December 31, 2013 from \$25.8 million for the year ended December 31, 2012, representing a 35% increase. The increase in cost of license and implementation revenue was principally attributable to an increase of \$7.6 million of personnel costs. Personnel costs, which include our employees and third party contractors, increased primarily 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 costs is an increase of \$0.5 million of noncash share based compensation expense. In addition, there was an increase of \$0.5 million of travel expenses due to the increase in the number of implementations, an increase of \$0.7 million in expenses related to hosting and our cloud-based service offerings and an increase of \$0.5 million in depreciation which were offset by a decrease of \$0.3 million of third party recruiting expenses.

License and implementation gross margins were 65% for the year ended December 31, 2013 compared with 67% for the year ended December 31, 2012. The decrease in the license and implementation gross margin was principally the result of a 35% increase in license and implementation costs due to the increase in the level of implementations in 2013 and anticipated implementations in 2014 compared to 2012. License and implementation gross margins may vary from period to period depending on different factors, including the amount of implementation services required to deploy our solutions relative to the total contract price and additional headcount needed to support anticipated future implementations.

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 attributed 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	As a percentage of total revenue	As a percentage of total revenue		
Selling, marketing, general and administrative	\$63,524	44 %	\$48,215	41 %	\$15,309	32 %
Research and development	32,467	22 %	27,611	23 %	4,856	18 %
Acquisition-related	2,173	2 %	—	—	2,173	nm
Total operating expenses	\$98,164	68 %	\$75,826	64 %	\$22,338	29 %

Selling, marketing, general and administrative expenses. Selling, marketing, general and administrative expenses increased \$15.3 million to \$63.5 million for the year ended December 31, 2013 from \$48.2 million for the year ended December 31, 2012, representing a 32% increase. The increase was principally attributable to an increase of \$12.2 million in sales, marketing, general and administrative 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 \$4.6 million of noncash share based compensation. In addition, there were increases of \$0.6 million of third party professional fees, \$0.3 million in marketing and sales expense, \$0.5 million increase in bad debt expense, and \$1.3 million of overhead and other expenses.

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, partially 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 our planned acquisition and integration of Cameleon.

## Other (expense) income, net:

(Dollars in thousands)	For the Year Ended December 31,				Variance \$	Variance %
	2013	2012	As a percentage of total revenue	As a percentage of total revenue		
Other (expense) income, net	(265 )	— %	(163 )	— %	102	— %

Other (expense) income, net. Other (expense) income, net consists of interest expense which includes debt issuance cost amortization on the \$50 million revolving credit facility ("Revolver") we entered into with Wells Fargo in July 2012, foreign currency exchange gains and losses on transactions denominated in currencies other than the functional currency and interest income on our cash and cash equivalents. The increase in the expense was principally attributed to \$0.1 million of interest expense from the Revolver.

## Income tax provision:

(Dollars in thousands)	For the Year Ended		Variance \$	Variance %
	December 31,	December 31,		
Effective tax rate	2013	2012		
	(5 )	38 %	n/a	(43 ) %



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December 31, 2013 and 2012, respectively. The difference between the effective tax rate for the year ended December 31, 2013 compared to the year ended December 31, 2012 is primarily due to the application of the 2013 R&E tax credit, a discrete benefit attributed to the 2012 R&E tax credit recorded in the first quarter of 2013, partially offset by a rate increase attributed to an increase in non-deductible share-based compensation expense and a discrete tax provision amount recorded in the third quarter of 2012 related to a favorable return-to-provision adjustment attributed to higher than expected 2011 R&E tax credits.

Comparison of year ended December 31, 2012 with year ended December 31, 2011

Revenue:

(Dollars in thousands)	For the Year Ended December 31, 2012		For the Year Ended December 31, 2011		Variance \$	Variance %
	Amount	As a percentage of total revenue	Amount	As a percentage of total revenue		
License and implementation	\$77,656	66 %	\$62,975	65 %	\$14,681	23 %
Maintenance and support	40,135	34 %	33,664	35 %	6,471	19 %
Total	\$117,791	100 %	\$96,639	100 %	\$21,152	22 %

License and implementation. License and implementation revenue increased \$14.7 million to \$77.7 million for the year ended December 31, 2012 from \$63.0 million for the year ended December 31, December 31, 2011 representing a 23% increase. The increase in license and implementation revenue was principally the result of a 23% increase in the number of implementations from 108 to 133, which increased the number of man-days expended by 15% and a 7% increase in the average revenue recognized per man-day as compared to the corresponding period of 2011.

License and implementation revenue includes revenue from both term licenses and hosting and cloud-based services. Revenue from term licenses represented approximately 4.8% and 5.8% of total revenue for the year ended December 31, 2012 and 2011, respectively. Revenue from hosting and our cloud-based service offerings represented approximately 2.6% and 2.3% of total revenue for the year ended December 31, 2012 and 2011, respectively.

Maintenance and support. Maintenance and support revenue increased \$6.5 million to \$40.1 million for the year ended December 31, 2012 from \$33.7 million for the year ended December 31, 2011, representing a 19% 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.

Total revenue. Total revenue increased \$21.2 million to \$117.8 million for the year ended December 31, 2012 from \$96.6 million for the year ended December 31, 2011, representing a 22% increase. Revenue from the manufacturing, distribution and services ("MDS") industries increased \$19.0 million to \$66.2 million for the year ended December 31, 2012 from \$47.1 million for the year ended December 31, 2011 representing a 40% increase. The increase in MDS revenue was due to an increase in demand from our business-to-business ("B2B") customers. Revenue from the travel industry increased \$2.1 million to \$51.6 million for the year ended December 31, 2012 from \$49.5 million for the year ended December 31, 2011 representing a 4% increase. The increase in revenue from the Travel industry was attributed principally to a 21% increase in maintenance and support revenue associated with implementations completed in 2012.

Cost of revenue and gross profit:

(Dollars in thousands)	For the Year Ended December 31, 2012		For the Year Ended December 31, 2011		Variance \$	Variance %
	Amount	As a percentage of related revenue	Amount	As a percentage of related revenue		
	\$25,830	33 %	\$19,627	31 %	\$6,203	32 %

Cost of license and implementation									
Cost of maintenance and support	7,955	20	%	6,675	20	%	1,280	19	%
Total cost of revenue	\$33,785	29	%	\$26,302	27	%	\$7,483	28	%
Gross profit	\$84,006	71	%	\$70,337	73	%	\$13,669	19	%

Cost of license and implementation. Cost of license and implementation revenue increased \$6.2 million to \$25.8 million for the year ended December 31, 2012 from \$19.6 million for the year ended December 31, 2011, representing a 32% increase.

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The increase in cost of license and implementation revenue was principally attributable to an increase of \$4.5 million of personnel costs. Personnel costs, which include our employees and third party contractors, increased primarily 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 costs is an increase of \$0.2 million of noncash share based compensation expense. In addition, there was an increase of \$0.8 million of travel expenses due to the increase in the number of implementations, an increase of \$0.7 million in expenses related to hosting and our cloud-based service offerings and an increase of \$0.2 million of third party recruiting expenses.

License and implementation gross margins were 67% for the year ended December 31, 2012 as compared to 69% for the year ended December 31, 2011. The decrease in the license and implementation gross margin was principally the result of a 32% increase in license and implementation costs due to the increase in the level of implementations in 2012 compared to 2011. License and implementation gross margins may vary from period to period depending on different factors, including the amount of implementation services required to deploy our solutions relative to the total contract price and additional headcount needed to support anticipated future implementations.

Cost of maintenance and support. Cost of maintenance and support revenue increased \$1.3 million to \$8.0 million for the year ended December 31, 2012 from \$6.7 million for the year ended December 31, 2011, representing a 19% 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 \$1.0 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 flat at 80% for both of the years ended December 31, 2012 and 2011.

Gross profit. Gross profit increased \$13.7 million to \$84.0 million for the year ended December 31, 2012 from \$70.3 million for the year ended December 31, 2011, representing a 19% increase. The increase in overall gross profit was principally attributable to a 22% increase in total revenue.

Operating expenses:

(Dollars in thousands)	For the Year Ended December 31,				Variance \$	Variance %
	2012	2011	As a percentage of total revenue	As a percentage of total revenue		
Selling, marketing, general and administrative	\$48,215	41 %	\$35,891	37 %	\$12,324	34 %
Research and development	27,611	23 %	25,671	27 %	1,940	8 %
Total operating expenses	\$75,826	64 %	\$61,562	64 %	\$14,264	23 %

Selling, marketing, general and administrative expenses. Selling, marketing, general and administrative expenses increased \$12.3 million to \$48.2 million for the year ended December 31, 2012 from \$35.9 million for the year ended December 31, 2011, representing a 34% increase. The increase was principally attributable to an increase of \$9.9 million in sales, marketing, general and administrative 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 \$2.2 million of noncash share based compensation. In addition, there were increases of \$1.1 million of travel expenses primarily a result of increased sales activity, \$1.0 million of third party professional fees, \$0.9 million of overhead and other expenses and \$0.3 million in third party recruiting expenses. These increases were partially offset by a \$0.7 million decrease in sales and marketing expenses resulting from decreases in certain marketing initiatives and a \$0.3 million decrease in bad debt expense.

Research and development expenses. Research and development expenses increased \$1.9 million to \$27.6 million for the year ended December 31, 2012 from \$25.7 million for the year ended December 31, 2011, representing a 8%



increase. The increase in research and development expenses was principally attributable to an increase of \$3.9 million in personnel costs as a result of increased headcount to support work on new projects and initiatives, offset by \$2.0 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 \$0.3 million of noncash share based compensation.

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Other (expense) income, net:

(Dollars in thousands)	For the Year Ended December 31,		2011		Variance \$	Variance %
	2012	As a percentage of total revenue	Amount	As a percentage of total revenue		
Other (expense) income, net	\$(163 )	— %	\$(141 )	— %	\$22	— %

Other (expense) income, net. Other (expense) income, net consists of interest expense which includes debt issuance cost amortization on the \$50 million Revolver we entered into with Wells Fargo in July 2012, foreign currency exchange gains and losses on transactions denominated in currencies other than the functional currency and interest income on our cash and cash equivalents. The increase in the expense was principally attributed to \$0.1 million of interest expense from the Revolver.

Income tax provision:

(Dollars in thousands)	For the Year Ended		Variance \$	Variance %
	December 31,	2011		
Effective tax rate	2012	26 %	n/a	12 %
Income tax provision (benefit)	\$3,051	\$2,284	\$767	34 %

Income tax provision. Our income tax provision increased \$0.8 million to \$3.1 million for the year ended December 31, 2012 from \$2.3 million for the year ended December 31, 2011. Our effective tax rates were 38% and 26% for the years ended December 31, 2012 and 2011, respectively. The increase in our effective tax rate relative to federal tax rate for the year ended December 31, 2012 is due to nondeductible share based compensation expense and the impact of the nonrenewal of the R&E tax credit in 2012, partially offset by a favorable return-to-provision adjustment attributable to higher than expected 2011 R&E tax credits recorded in 2012. The effective tax rate of 26% in 2011 was lower than the federal tax rate due to the application of R&E tax credits, which expired at the end of 2011.

Liquidity and capital resources:

At December 31, 2013, we had \$44.7 million of unrestricted cash and cash equivalents and \$72.1 million of working capital as compared to \$83.6 million of cash and cash equivalents and \$73.0 million of working capital at December 31, 2012. Our principal sources of liquidity are our cash and cash equivalents, cash flows generated from operations and potential borrowings under our Revolver. Our material drivers or variants of operating cash flow are net income, noncash expenses (principally share-based compensation) and the timing of periodic billings and collections related to the sale of our software and related services. The primary source of operating cash flows is the collection of accounts receivable from our customers. Our operating cash flows are also impacted by the timing of payments to our vendors for accounts payable and other liabilities. We generally pay our vendors and service providers in accordance with the invoice terms and conditions.

In October 2013, we placed approximately \$40 million of cash into escrow to fund our planned acquisition of Cameleon, which was included as current restricted cash as of December 31, 2013. Certain of these funds were released from escrow in connection with our purchase of Cameleon shares and warrants in January 2014, while the balance remains in escrow subject to the acquisition of the remaining minority interest in Cameleon. We believe our existing cash and cash equivalent balances, funds available under our Revolver and our current estimates of future operating cash flows will provide adequate liquidity and capital resources to meet our operational requirements and anticipated capital expenditures for the next twelve months. Our future working capital requirements will depend on many factors, including the operations of our existing business, our potential strategic expansion, future acquisitions

we might undertake, and expansion into complementary businesses. If such need arises, we may raise additional funds through equity or debt financings.

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The following table presents key components of our Consolidated Statements of Cash Flows for the years ended December 31, 2013, 2012 and 2011:

(Dollars in thousands)	For the Year Ended December 31,		
	2013	2012	2011
Net cash provided by operating activities	\$16,971	\$24,652	\$14,243
Net cash used in investing activities	(58,766	) (9,527	) (2,965
Net cash provided by (used in) financing activities	2,925	(24	) 1,334
Cash and cash equivalents (beginning of period)	83,558	68,457	55,845
Cash and cash equivalents (end of period)	\$44,688	\$83,558	\$68,457

## Cash flow analysis:

Our cash flows from operations were derived principally from: (i) our earnings from on-going operations prior to noncash expenses such as depreciation, changes in deferred tax assets, changes in the provision for doubtful accounts, excess tax benefit on noncash share based compensation and non-cash share based compensation; and (ii) changes in our working capital.

Net cash provided by operating activities for the year ended December 31, 2013 was \$17.0 million, which represents a decrease of \$7.7 million when compared to the same period in 2012. For the year ended December 31, 2013, our cash flows from operations were derived principally from our earnings from on-going operations prior to noncash expenses such as depreciation, excess tax benefits on share-based compensation, tax benefits on share-based compensation, share-based compensation and changes in our working capital. The decrease in net cash provided by operating activities in 2013 as compared to 2012 was principally due to a decrease of \$9.1 million attributed to changes in deferred revenue as a result of a change in the timing of our revenue recognition as compared to the timing of our invoicing, and a decrease of \$1.5 million of net income. These decreases were partially offset by an increase of \$5.6 million of noncash expenses principally as the result of the increase period over period in share-based compensation. Uses of cash from investing activities consisted of \$39.4 million of restricted cash related to the planned Cameleon acquisition, \$13.1 million (net of cash acquired) for the acquisition of SignalDemand in December 2013, \$3.4 million of purchases of property and equipment as a result of infrastructure investments and costs related to the renovation and expansion of our facility and \$2.9 million in capitalized internal-use software development costs related to our cloud-based service offerings.

Net cash provided by financing activities consisted of proceeds from stock option exercises of \$3.3 million and excess tax benefits from stock-based compensation of \$2.9 million, offset by tax withholding related to the net share settlement of vesting of employee share-based awards of \$3.3 million.

Net cash provided by operating activities for the year ended December 31, 2012 was \$24.7 million, which represents an increase of \$10.4 million when compared to the same period in 2011. For the year ended December 31, 2012, our cash flows from operations were derived principally from our earnings from on-going operations prior to noncash expenses such as depreciation, excess tax benefits on share-based compensation, tax benefits on share-based compensation, share-based compensation and changes in our working capital. The increase in net cash provided by operating activities in 2012 as compared to 2011 was principally due to an increase of \$8.2 million attributed to changes in operating assets and liabilities, which are comprised of accounts receivable, unbilled receivables, prepaid and other assets, accounts payable, accrued liabilities, accrued payroll and other employee benefits and deferred revenue and \$3.6 million of noncash expenses principally as the result of the increase period over period in share-based compensation. These increases were partially offset by a decrease of \$1.4 million of net income. Included in our changes in operating assets and liabilities in 2012 was \$5.1 million of cash provided from a federal tax refund received in the second quarter. Uses of cash from investing activities consisted of \$7.5 million of purchases of property and equipment as a result of infrastructure investments and costs related to the renovation and expansion of our facility and \$2.0 million in capitalized internal-use software development costs related to our cloud-based service offerings.

Uses of cash from investing activities consisted of \$7.5 million of purchases of property and equipment as a result of infrastructure investments and costs related to the renovation and expansion of our facility and \$2.0 million in capitalized internal-use software development costs related to our cloud-based service offerings.

Net cash provided by financing activities consisted of proceeds from stock option exercises of \$1.4 million and excess tax benefits from stock-based compensation of \$1.7 million, offset by tax withholding related to the net share settlement of vesting of employee share-based awards of \$2.8 million and debt issuance cost of \$2.8 million related to the credit facility the company entered in 2012.

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Net cash provided by operating activities for the year ended December 31, 2011 was \$14.2 million, which represents an increase of \$19.5 million when compared to the same period in 2010. The increase in net cash provided by operating activities in 2011 as compared to 2010 was principally due to an increase in net earnings of \$8.3 million, net increases of \$0.5 million in noncash expenses and an increase of \$10.8 million attributed to changes in operating assets and liabilities. Uses of cash from investing activities for the year ended December 31, 2011 principally consisted of \$3.0 million of purchases of property and equipment.

Uses of cash from investing activities for the year ended December 31, 2011 consisted mainly of \$3.0 million of purchases of property and equipment as a result of infrastructure investments and costs related to the renovation and expansion of our facility.

Net cash provided by financing activities consisted of proceeds from stock option exercises of \$1.9 million and excess tax benefits from stock-based compensation of \$1.4 million, offset by tax withholding related to the net share settlement of vesting of employee share-based awards of \$1.9 million.

**Stock repurchases**

In August 2008, we announced that our Board of Directors authorized a stock repurchase program for the purchase of up to \$15.0 million of our common stock. No shares were repurchased during the years ended December 31, 2013, 2012 and 2011, respectively. At December 31, 2013, \$10.0 million remained available in the stock repurchase program. The repurchase of stock if continued will be funded primarily with existing cash balances. The timing of any repurchases will depend upon various factors including but not limited to market conditions, the market price of our common stock and management's assessment of our liquidity and cash flow needs. For additional information on the stock repurchase program see "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities."

**Contractual obligations**

The following table sets forth our contractual obligations as of December 31, 2013:

(Dollars in thousands)	Payment due by period				
	Total	Less than 1 year	1 to 3 years	3 to 5 years	more than 5 years
Operating leases	\$5,815	\$2,544	\$3,271	\$—	\$—
Total contractual obligations	\$5,815	\$2,544	\$3,271	\$—	\$—

**Operating Leases**

In June 2012, we entered into a fourth amendment to our corporate office lease in Houston, TX (the "Lease Amendment"). The Lease Amendment, among other things, provides for an increase in the square footage of our corporate office to 90,389, and provided an option to an additional 7,411 square feet. The term of this lease runs until September 30, 2016. The lease has two options to extend the total term of the lease for an additional 72 months, and provides for an early termination at any time after July 31, 2013. In addition, we lease approximately 3,100 square feet in London, United Kingdom, and 3,300 square feet in Austin, Texas. These leases expire in August 2022, with an option to terminate in August 2015, and September 2016, respectively. As part of the SignalDemand acquisition, we assumed a lease of approximately 6,600 square feet in San Francisco, California, which expires in November 2015.

**Credit facility**

In July 2012, we, through our wholly owned operating subsidiary, PROS, Inc., entered into a \$50 million revolving credit facility ("Revolver") with Wells Fargo which matures in July 2017.

Outstanding borrowings under the Revolver bear interest, at the end of the applicable one month, three month or six month interest period, at a rate per annum equal to LIBOR plus an applicable margin of 1.5% to 2.25% or the Federal Funds Rate plus an applicable margin of 1.50% to 2.25%. Borrowings under the Revolver are collateralized by a first priority interest in and lien on all of our material assets.

The Revolver contains affirmative and negative covenants, including covenants which restrict our ability to, among other things, create liens, incur additional indebtedness and engage in certain other transactions, in each case subject to certain exclusions. In addition, the Revolver contains certain financial covenants which become effective in the event our availability under the Revolver plus cash and cash equivalents falls below \$20.0 million or upon the occurrence of an event of default. As of December 31, 2013, we are in compliance with all financial covenants in the Revolver.

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Debt interest expense of \$0.2 million and \$0.1 million was incurred during the year ended December 31, 2013 and December 31, 2012.

There were no outstanding borrowings under the Revolver as of December 31, 2013.

Off-balance sheet arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as variable interest entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical accounting policies and estimates:

We make estimates and assumptions in the preparation of our Consolidated Financial Statements, and our estimates and assumptions may affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements, and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates. The complexity and judgment of our estimation process and issues related to the assumptions, risks and uncertainties inherent in the application of the percentage-of-completion method of accounting affect the amounts of revenue, expenses, unbilled receivables and deferred revenue. Estimates are also used for, but not limited to, receivables, allowance for doubtful accounts, useful lives of assets, depreciation, income taxes and deferred tax asset valuation, valuation of stock options, other current liabilities and accrued liabilities. Numerous internal and external factors can affect estimates. Our management has reviewed these critical accounting policies, our use of estimates and the related disclosures with our Audit Committee. We believe the critical accounting policies listed below affect significant judgment and estimates used in the preparation of our Consolidated Financial Statements.

Revenue recognition

We derive our revenue from the licensing and implementation of software solutions and associated software maintenance and support. To a lesser extent, our revenue includes nonsoftware related hosting and cloud-based services. Our arrangements with customers typically include: (a) license fees paid for the use of our solutions either in perpetuity or over a specified term and implementation fees for configuration, implementation and training services and (b) maintenance and support fees related to technical support and software updates. 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 and fees are fixed or determinable. For certain arrangements, we engage independent contractors to assist in the implementation of our software solutions. These arrangements are analyzed based on numerous factors to determine the amount of revenue to be recognized.

In determining whether implementation 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 using factors such as the nature of our software products; whether they are ready for use by the customer upon receipt; the nature of our implementation services; the availability of services from other vendors; whether the timing of payments for license revenue is coincident with performance of services; and whether milestones or acceptance criteria exist that affect the realizability of the software license fee.

Our software license arrangements typically include implementation services that can be considered essential to the customer's usability of the licensed software solutions and accordingly do not qualify for separate accounting treatment for the license and implementation services revenues and software license revenue is generally recognized together with the implementation services using the percentage-of-completion method or completed contract method. The completed contract method is used for contracts where there is a risk over final acceptance by the customer or for contracts that are short term in nature.



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

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We also license software solutions under term license agreements that typically include maintenance during the license term. When maintenance is included for the entire term of the license, there is no renewal rate and we have not established vendor specific objective evidence (“VSOE”) of fair value for the maintenance on term licenses. For term license agreements, revenue and the associated costs are deferred until the delivery of the solution and recognized ratably over the remaining license term. Revenue from term licenses, which is included in license and implementation revenue in the Consolidated Statement of Operations, represented approximately 3.6%, 4.8% and 5.8% of total revenue for the years ended December 31, 2013, 2012 and 2011, respectively.

For arrangements that include hosting and cloud-based service offerings, we allocate the arrangement consideration between the hosting and cloud-based service offerings and other elements and recognize the hosting and cloud-based service offerings revenue ratably beginning on the date the services commence through the end of the contract term. Revenue from hosting and cloud-based service offerings, which is included in license and implementation revenue in the Consolidated Statements of Comprehensive Income, represented approximately 2.4%, 2.6% and 2.3% of total revenue for the years ended December 31, 2013, 2012 and 2011, respectively.

Our customer arrangements typically contain multiple elements that include software license, implementation services and post-implementation maintenance and support. For multiple element arrangements containing our nonsoftware services, we must (1) determine whether and when each element has been delivered; (2) determine fair value of each element using the selling price hierarchy of VSOE of fair value, third party evidence (“TPE”), or BESP, as applicable, and (3) allocate the total price among the various elements based on the relative selling price method.

For multiple-element arrangements that contain software and nonsoftware elements such as our hosting service offerings, we allocate revenue between the software and software related elements as a group and any nonsoftware elements based on a relative fair value allocation. We determine fair value for each deliverable using this hierarchy and utilize VSOE of fair value if it exists.

In certain instances, we may not be able to establish VSOE for all deliverables in an arrangement with multiple elements. This may be due to infrequently selling each element separately, not pricing solutions or services within a narrow range, or only having a limited sales history. In addition, third party evidence may not be available. When we are unable to establish selling prices using VSOE or TPE, we use BESP in our allocation of arrangement consideration. The objective of BESP is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis. For transactions that only include software and software-related elements, we continue to account for such arrangements under the software revenue recognition standards which requires us to establish VSOE of fair value to allocate arrangement consideration to multiple deliverables.

Maintenance and support revenue includes post-implementation customer support and the right to unspecified software updates and enhancements on a when and if available basis. We generally invoice for maintenance and support services on a monthly, quarterly or on an annual basis through the maintenance and support period. We recognize revenue from maintenance arrangements ratably over the period in which the services are provided.

Software license and implementation revenue that has been recognized, but for which we have not invoiced the customer, is recorded as unbilled receivables. Invoices that have been issued before software license, implementation and maintenance and support revenue has been recognized are recorded as deferred revenue in the accompanying consolidated balance sheets.

### Allowance for doubtful accounts

In addition to our initial credit evaluations at the inception of arrangements, we regularly assess our ability to collect outstanding customer invoices. To do so, we make estimates of the collectability of accounts receivable. We provide an allowance for doubtful accounts when we determine that the collection of an outstanding customer receivable is not

probable. We also analyze accounts receivable and historical bad debt experience, customer creditworthiness, changes in our customer payment history and industry concentration on an aggregate basis when evaluating the adequacy of the allowance for doubtful accounts. If any of these factors change, our estimates may also change, which could affect the level of our future provision for doubtful accounts.

#### Noncash share based compensation

We have two noncash share based compensation plans, the 1999 equity incentive plan and the 2007 equity incentive plan, which authorize the discretionary granting of various types of stock awards to key employees, officers, directors and consultants. Our 1999 equity incentive plan was terminated in March 2007 for purposes of granting any future equity awards. Our 2007 equity incentive plan was adopted in March 2007. We may provide noncash share based compensation through the grant of: (i) restricted

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stock awards; (ii) restricted stock unit awards; (iii) stock options; (iv) stock appreciation rights; (v) phantom stock; and (vii) performance awards. As of December 31, 2013, we have granted stock options, restricted stock units, stock appreciation rights (“SARs”) and market stock units (“MSUs”).

Noncash share based compensation expense is measured at the grant date based on the fair value of the award and is recognized as expense on a straight-line basis over the requisite service period, which is generally the vesting period. The fair value of the restricted stock units is based on the closing price of our stock on the date of grant. We estimate the fair value of stock options and SARs, using the Black-Scholes option pricing model, which requires us to use significant judgment to make estimates regarding the expected life of the award, volatility of our stock price, the risk-free interest rate and the dividend yield of our stock over the life of the award. The expected life of the award is a historical weighted average of the expected lives of similar securities of comparable public companies. We estimate volatility using a combination of our historical volatility and the volatilities of an appropriately selected peer group of companies, given our limited public stock price history as of the date of the grant. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of our awards. The dividend yield assumption is based on our expectation of paying no dividends.

As we issue stock options and SARs, we evaluate the assumptions used to value our stock option awards and SARs. If factors change and we employ different assumptions, noncash share based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unearned noncash share based compensation expense. Future noncash share based compensation expense and unearned noncash share based compensation will increase to the extent that we grant additional equity awards to employees.

We estimate the number of awards that will be forfeited and recognize expense only for those awards that ultimately are expected to vest. Significant judgment is required in determining the adjustment to noncash share based compensation expense for estimated forfeitures. Noncash share based compensation expense in a period could be impacted, favorably or unfavorably, by differences between forfeiture estimates and actual forfeitures.

The MSUs are performance-based awards that vest based on our shareholder return relative to the total shareholder return of the Russell 2000 Index (“Index”) over a two and three year period ending December 31, 2013 and December 31, 2015 (“Performance Period”), respectively. The MSUs vest on January 1, 2014 and 2016 and the maximum number of shares issuable upon vesting is 200% of the MSUs initially granted based on the average price of our common stock relative to the Index during the Performance Period. We estimate the fair value of MSUs on the date of grant using a Monte Carlo simulation model. The determination of fair value of the MSUs is affected by our stock price and a number of assumptions including the expected volatilities of our stock and the Index, the risk-free interest rate and expected dividends. Our expected volatility at the date of grant was based on the historical volatilities of our stock and the Index over the Performance Period. We did not estimate a forfeiture rate for the MSUs due to the limited size, the vesting period and nature of the grantee population and the lack of history of granting this type of award.

We record deferred tax assets for stock-based compensation awards that will result in future deductions on our income tax returns, based on the amount of stock-based compensation recognized at the statutory tax rate in the jurisdiction in which we will receive a tax deduction. Because the deferred tax assets we record are based upon the stock-based compensation expenses in a particular jurisdiction, the aforementioned inputs that affect the fair values of our stock awards may also indirectly affect our income tax expense. In addition, differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on our income tax returns are recorded in additional paid-in capital. If the tax deduction is less than the deferred tax asset, the calculated shortfall reduces our pool of excess tax benefits. If the pool of excess tax benefits is reduced to zero, then subsequent shortfalls would increase our income tax expense.

At December 31, 2013, we had \$29.4 million of total unrecognized compensation costs related to noncash share based compensation arrangements for stock options, SARs, restricted stock units and MSUs granted. These costs will be recognized over a weighted-average period of 3.0 years.

### Accounting for income taxes

We use the asset and liability method of accounting for income taxes. Under this method, income tax expense is recognized for the amount of taxes payable or refundable for the current year. In addition, deferred tax assets and

liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for operating losses and tax credit carryforwards. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. In order for us to realize our deferred tax assets, we must be able to generate sufficient taxable income in those jurisdictions where the deferred tax assets are located. We consider both positive and

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negative evidence including future growth, forecasted earnings, future taxable income, taxable income in prior years and tax planning actions, as applicable, in determining the need for a valuation allowance.

We account for uncertain income tax positions recognized in our financial statements in accordance with the Income Tax Topic of the Accounting Standards Codification (“ASC”), issued by FASB. This interpretation requires companies to use a prescribed model for assessing the financial recognition and measurement of all tax positions taken or expected to be taken in its tax returns. This guidance provides clarification on derecognition, classification, interest and penalties, accounting in interim periods, disclosures and transition. Please see Note 11 to the Consolidated Financial Statements for more information.

Our Federal effective tax rate historically has been lower than the statutory rate of 34% largely due to the application of general business tax credits. 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, we recorded the full benefit of the 2012 R&E tax credit in the first quarter of 2013.

### Business Combinations

We record tangible and intangible assets acquired and liabilities assumed in business combinations under the purchase method of accounting. Amounts paid for each acquisition are allocated to the assets acquired and liabilities assumed based on their fair values at the date of acquisition. We then allocate the purchase price in excess of net tangible assets acquired to identifiable intangible assets based on detailed valuations that use information and assumptions provided by management. We allocate any excess purchase price over the fair value of the net tangible and intangible assets acquired and liabilities assumed to goodwill. If the fair value of the assets acquired exceeds our purchase price, the excess is recognized as a gain.

Significant management judgments and assumptions are required in determining the fair value of acquired assets and liabilities, particularly acquired intangible assets. The valuation of purchased intangible assets is based upon estimates of the future performance and cash flows from the acquired business. Each asset is measured at fair value from the perspective of a market participant.

If different assumptions are used, it could materially impact the purchase price allocation and adversely affect our results of operations, financial condition and cash flows.

### Intangible Assets and Goodwill

We amortize our intangible assets that have finite lives using either the straight-line method or, if reliably determinable, based on the pattern in which the economic benefit of the asset is expected to be consumed utilizing expected undiscounted future cash flows. Amortization is recorded over the estimated useful lives ranging from two to eight years.

We review our intangible assets subject to amortization to determine if any adverse conditions exist or a change in circumstances has occurred that would indicate impairment or a change in the remaining useful life. If the carrying value of an asset exceeds its undiscounted cash flows, we will write down the carrying value of the intangible asset to its fair value in the period identified. In assessing recoverability, we must make assumptions regarding estimated future cash flows and discount rates. If these estimates or related assumptions change in the future, we may be required to record impairment charges. We generally calculate fair value as the present value of estimated future cash flows to be generated by the asset using a risk adjusted discount rate. If the estimate of an intangible asset’s remaining useful life is changed, we will amortize the remaining carrying value of the intangible asset prospectively over the revised remaining useful life.

We review the carrying value of goodwill for impairment whenever events or changes in circumstances indicate that the carrying value of goodwill may exceed its fair value, and otherwise annually. Conditions that could trigger a more

frequent impairment assessment include, but are not limited to, a significant adverse change in certain agreements, significant underperformance relative to historical or projected future operating results, an economic downturn in customers' industries, increased competition, a significant reduction in our stock price for a sustained period or a reduction of our market capitalization relative to net book value. We evaluate impairment by comparing the estimated fair value of each reporting unit to its carrying value. We estimate fair value primarily utilizing the market approach, which calculates fair value based on the market values of comparable companies or comparable transactions. Actual results may differ materially from these estimates. The estimates we make in determining the fair value of our reporting unit involve the application of judgment, which could affect the timing and size of any future impairment charges. Impairment of our goodwill could significantly affect our operating results and financial position.

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We continually evaluate whether events or circumstances have occurred that indicate that the estimated remaining useful life of our long-lived assets may warrant revision or that the carrying value of these assets may be impaired. Any write-downs are treated as permanent reductions in the carrying amount of the assets. We must use judgment in evaluating whether events or circumstances indicate that useful lives should change or that the carrying value of assets has been impaired. Any resulting revision in the useful life or the amount of an impairment also requires judgment. Any of these judgments could affect the timing or size of any future impairment charges. Revision of useful lives or impairment charges could significantly affect our operating results and financial position.

In 2013 we adopted ASU No. 2011-08, Intangibles — Goodwill and Other (Topic 350) Testing Goodwill for Impairment . Under ASU 2011-08, we have the option to assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount to determine whether further impairment testing is necessary. Based on the assessment of these qualitative factors, we determined that no impairment indicators were noted, allowing us to forego the quantitative analysis.

Recent accounting pronouncements

In February 2013, the FASB issued ASU 2013-2, Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. This guidance requires the presentation of the effects on the line items of net income of significant amounts reclassified out of accumulated other comprehensive income, but only if the item reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. We adopted the standard on January 1, 2013. The adoption did not have an impact on our consolidated financial position, results of operations or cash flows.

In July 2012, the FASB amended ASC 350, Intangibles — Goodwill and Other. This amendment is intended to simplify how an entity tests indefinite-lived assets other than goodwill for impairment by providing entities with an option to perform a qualitative assessment to determine whether further impairment testing is necessary. The amended provisions were effective for us for the year ended December 31, 2013. This amendment impacts impairment testing steps only, and therefore the adoption did not have an impact on our consolidated financial position, results of operations or cash flows.



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### Item 7A. Quantitative and qualitative disclosures about market risk

#### Foreign Currency Exchange Risk

Our contracts are predominately denominated in U.S. dollars; however, we have contracts denominated in foreign currencies and therefore a portion of our revenue is subject to foreign currency risks. The primary market risk we face is from foreign currency exchange rate fluctuations. Our cash flows are subject to fluctuations due to changes in foreign currency exchange rates. The effect of an immediate 10% adverse change in exchange rates on foreign denominated receivables as of December 31, 2013 would have resulted in a \$0.9 million loss. In addition, as of December 31, 2013, we had operating subsidiaries in Canada, the United Kingdom and Germany. However, due to the relative low volume of payments made by us through these foreign subsidiaries, we do not believe that it has significant exposure to foreign currency exchange risks. Fluctuations in currency exchange rates could harm our results of operations in the future.

We currently do not use derivative financial instruments to mitigate foreign currency exchange risks. We continue to review this issue and may consider hedging certain foreign exchange risks through the use of currency futures or options in future years.

#### Exposure to Interest Rates

PROS' exposure to market risk for changes in interest rates relates to the variable interest rate on borrowings under our Revolver. As of December 31, 2013, we had no borrowings under the Revolver.

#### Item 8. Financial statements and supplementary data

The consolidated financial statements required to be filed are indexed on page F-1 and are incorporated herein by reference. See Item 15(a)(1) and (2).

#### Item 9. Change in and disagreements with accountants on accounting and financial disclosure None.

#### Item 9A. Controls and procedures

##### Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act of 1934, as amended ("Exchange Act"). Based on that evaluation as of the period covered by this Annual Report on Form 10-K, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

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

In December 2013, we completed the acquisition of SignalDemand, a privately held software company headquartered in San Francisco. For purposes of determining the effectiveness of our internal controls over financial reporting, management has excluded SignalDemand from its evaluation of these matters. SignalDemand represented approximately 8.7% of our consolidated total assets as of December 31, 2013 and approximately 0.2% of our consolidated revenues for the year-ended December 31, 2013.

Other than the change described above, there have been no other changes in our internal control over financial reporting that occurred during most recent fiscal quarter that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

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

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external purposes in accordance with GAAP. Our internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

In December 2013, we completed the acquisition of SignalDemand, a privately held software company headquartered in San Francisco. For purposes of determining the effectiveness of our internal controls over financial reporting, management has excluded SignalDemand from its evaluation of these matters. SignalDemand represented approximately 8.7% of our consolidated total assets as of December 31, 2013 and approximately 0.2% of our consolidated revenues for the year-ended December 31, 2013.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer has assessed the effectiveness of our internal control over financial reporting as of December 31, 2013, based on the criteria in Internal Control — Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2013 based upon the COSO criteria.

The effectiveness of our internal control over financial reporting as of December 31, 2013 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

Item 9B. Other information

None.

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Part III

Item 10. Directors, executive officers and corporate governance

The information required by this item is incorporated by reference from our proxy statement in connection with our 2014 Annual Meeting of Stockholders, which proxy statement will be filed with the SEC not later than 120 days after the close of our fiscal year ended December 31, 2013.

Item 11. Executive compensation

The information required by this item is incorporated by reference from our proxy statement in connection with our 2014 Annual Meeting of Stockholders, which proxy statement will be filed with the SEC not later than 120 days after the close of our fiscal year ended December 31, 2013.

Item 12. Security ownership of certain beneficial owners and management and related stockholder matters

The information required by this item is incorporated by reference from our proxy statement in connection with our 2014 Annual Meeting of Stockholders, which proxy statement will be filed with the SEC not later than 120 days after the close of our fiscal year ended December 31, 2013.

Item 13. Certain relationships, related transactions and director independence

The information required by this item is incorporated by reference from our proxy statement in connection with our 2014 Annual Meeting of Stockholders, which proxy statement will be filed with the SEC not later than 120 days after the close of our fiscal year ended December 31, 2013.

Item 14. Principal accountant fees and services

The information required by this item is incorporated by reference from our proxy statement in connection with our 2014 Annual Meeting of Stockholders, which proxy statement will be filed with the SEC not later than 120 days after the close of our fiscal year ended December 31, 2013.

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Part IV

Item 15. Exhibits and financial statements schedules

(a)(1) Financial Statements

Reference is made to the Index to Financial Statements in the section entitled “Financial Statements and Supplementary Data” in Part II, Item 8 of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

Reference is made to Schedule II, Valuation and Qualifying Accounts, as indexed on page F-1.

Schedules not listed above have been omitted because they are not applicable or are not required or the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto.

(a)(3) Exhibits

Exhibits are as set forth in the section entitled “Exhibit Index” which follows the section entitled “Signatures” in this Annual Report on Form 10-K. Exhibits which are incorporated herein by reference can be inspected and copied at the public reference rooms maintained by the SEC in Washington, D.C., New York, New York, and Chicago, Illinois, and are also available to the public from commercial document retrieval services and at the website maintained by the SEC at <http://www.sec.gov>.

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## Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities and Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on March 3, 2014.

PROS Holdings Inc.

By: /s/ Andres Reiner

Andres Reiner

President and Chief Executive Officer

KNOW BY THESE PRESENT, that each person whose signature appears below constitutes and appoints each of Andres Reiner and Charles H. Murphy, his attorney-in-fact, with the power of substitution, for him in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of the attorney-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof. Pursuant to the requirement of the Securities and Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signatures	Title	Date
/s/ Andres Reiner Andres Reiner	President, Chief Executive Officer, and Director (Principal Executive Officer)	March 3, 2014
/s/ Charles H. Murphy Charles H. Murphy	Executive Vice President and Chief Financial Officer (Principal Accounting Officer)	March 3, 2014
/s/ Ronald F. Woestemeyer Ronald Woestemeyer	Executive Vice President, Strategic Business Planning and Director	March 3, 2014
/s/ William Russell William Russell	Chairman of the Board	March 3, 2014
/s/ Ellen Keszler Ellen Keszler	Director	March 3, 2014
/s/ Greg B. Petersen Greg B. Petersen	Director	March 3, 2014
/s/ Timothy V. Williams Timothy V. Williams	Director	March 3, 2014
/s/ Mariette M. Woestemeyer Mariette M. Woestemeyer	Director	March 3, 2014

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PROS Holdings, Inc.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of PROS Holdings, Inc.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of PROS Holdings, Inc. and its subsidiaries at December 31, 2013 and December 31, 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and the financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A, management has excluded SignalDemand from its assessment of internal control over financial reporting as of December 31, 2013 because it was acquired by the Company in a purchase business combination during 2013. We



have also excluded SignalDemand from our audit of internal control over financial reporting. SignalDemand is a wholly-owned subsidiary whose total assets and total revenues represent 8.7% and 0.2%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2013.

/s/ PricewaterhouseCoopers LLP

San Jose, California  
March 3, 2014

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PROS Holdings, Inc.

Consolidated Balance Sheets

(In thousands, except share amounts)

	December 31, 2013	2012
Assets:		
Current assets:		
Cash and cash equivalents	\$44,688	\$83,558
Accounts and unbilled receivables, net of allowance of \$1,060 and \$760, respectively	46,566	38,801
Prepaid and other current assets	6,157	5,067
Restricted cash - current	39,718	—
Total current assets	137,129	127,426
Restricted cash - noncurrent	100	329
Property and equipment, net	15,587	12,788
Intangibles	8,232	—
Goodwill	7,024	—
Deferred tax assets - noncurrent, net of valuation allowance	10,505	4,585
Other long term assets, net	1,251	1,351
Total assets	\$179,828	\$146,479
Liabilities and Stockholders' Equity:		
Current liabilities:		
Accounts payable	\$7,839	\$3,775
Accrued liabilities	5,210	3,258
Accrued payroll and other employee benefits	9,679	7,669
Deferred revenue	42,274	39,774
Total current liabilities	65,002	54,476
Long-term deferred revenue	2,977	2,007
Other long-term liabilities	546	1,327
Total liabilities	68,525	57,810
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 5,000,000 shares authorized none issued	—	—
Common stock, \$0.001 par value, 75,000,000 shares authorized; 32,606,228 and 31,966,432 shares issued, respectively; 28,188,643 and 27,548,847 shares outstanding, respectively	33	32
Additional paid-in capital	106,880	87,693
Treasury stock, 4,417,585 common shares, at cost	(13,938	) (13,938 )
Retained earnings	18,328	14,882
Total stockholders' equity	111,303	88,669
Total liabilities and stockholders' equity	\$179,828	\$146,479

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

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PROS Holdings, Inc.  
 Consolidated Statements of Comprehensive Income  
 (In thousands, except share and per share data)

	For the Year Ended December 31,		
	2013	2012	2011
Revenue:			
License and implementation	\$98,749	\$77,656	\$62,975
Maintenance and support	46,088	40,135	33,664
Total revenue	144,837	117,791	96,639
Cost of revenue:			
License and implementation	34,896	25,830	19,627
Maintenance and support	8,239	7,955	6,675
Total cost of revenue	43,135	33,785	26,302
Gross profit	101,702	84,006	70,337
Operating expenses:			
Selling, marketing, general and administrative	63,524	48,215	35,891
Research and development	32,467	27,611	25,671
Acquisition-related	2,173	—	—
Income from operations	3,538	8,180	8,775
Other expense, net	(265)	(163)	(141)
Income before income tax provision	3,273	8,017	8,634
Income tax provision (benefit)	(173)	3,051	2,284
Net income	\$3,446	\$4,966	\$6,350
Net earnings attributable to common stockholders per share:			
Basic	0.12	0.18	0.24
Diluted	0.11	0.17	0.23
Weighted average number of shares:			
Basic	28,004,019	27,365,731	26,831,530
Diluted	30,114,373	28,419,956	27,761,958
Other comprehensive income, net of tax:			
Other comprehensive income	—	—	—
Comprehensive income	\$3,446	\$4,966	\$6,350

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

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PROS Holdings, Inc.  
Consolidated Statements of Cash Flows  
(In thousands)

	Year Ended December 31,		
	2013	2012	2011
Operating activities:			
Net income	\$3,446	\$4,966	\$6,350
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	4,307	2,286	1,609
Share-based compensation	16,272	9,645	6,832
Excess tax benefits on share-based compensation	(2,940)	(1,686)	(1,379)
Tax benefit from share-based compensation	2,931	1,573	1,320
Deferred income tax, net	(2,776)	962	315
Provision for doubtful accounts	300	(326)	178
Changes in operating assets and liabilities:			
Accounts and unbilled receivable	(7,492)	(4,609)	(6,656)
Prepaid expenses and other	1,204	2,215	(2,971)
Accounts payable and other liabilities	2,885	(790)	2,579
Accrued liabilities	1,002	1,700	(392)
Accrued payroll and other employee benefits	1,050	2,879	405
Deferred revenue	(3,218)	5,837	6,053
Net cash provided by operating activities	16,971	24,652	14,243
Investing activities:			
Purchases of property and equipment	(3,401)	(7,514)	(3,002)
Acquisition of SignalDemand, net of cash acquired	(13,102)	—	—
Capitalized internal-use software development costs	(2,874)	(2,013)	—
Increase in restricted cash	(39,389)	—	(36)
Decrease in short-term investment	—	—	73
Net cash used in investing activities	(58,766)	(9,527)	(2,965)
Financing activities:			
Exercise of stock options	3,327	1,354	1,874
Excess tax benefits on share-based compensation	2,940	1,686	1,379
Tax withholding related to net share settlement of restricted stock units	(3,342)	(2,814)	(1,919)
Debt issuance costs related to Revolver	—	(250)	—
Net cash provided (used in) by financing activities	2,925	(24)	1,334
Net (decrease) increase in cash and cash equivalents	(38,870)	15,101	12,612
Cash and cash equivalents:			
Beginning of period	83,558	68,457	55,845
End of period	\$44,688	\$83,558	\$68,457
Supplemental disclosure of cash flow information:			
Cash refund (paid) during period for:			
Taxes	\$(278)	\$4,694	\$(5,330)
Interest	\$(87)	\$(68)	\$—
Noncash investing activities:			
Purchase of property and equipment accrued but not paid	\$2,045	\$1,425	\$606

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



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PROS Holdings, Inc.  
 Consolidated Statements of Stockholders' Equity  
 (In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Treasury Stock		Accumulated (Deficit) Retained Earnings	Total Stockholders' Equity
	Shares	Amount		Shares	Amount		
Balance at December 31, 2010	26,359,415	\$ 31	\$ 69,844	4,417,585	\$(13,938 )	\$ 3,566	\$ 59,503
Exercise of stock options	308,762	—	1,874	—	—	—	1,874
Restricted stock units net settlement	346,668	—	(1,919 )	—	—	—	(1,919 )
Excess tax benefits from stock based compensation	—	—	1,303	—	—	—	1,303
Noncash share based compensation	—	—	6,832	—	—	—	6,832
Net loss	—	—	—	—	—	6,350	6,350
Balance at December 31, 2011	27,014,845	31	77,934	4,417,585	(13,938 )	9,916	73,943
Exercise of stock options	126,604	—	1,354	—	—	—	1,354
Restricted stock units net settlement	407,398	1	(2,814 )	—	—	—	(2,813 )
Excess tax benefits from stock based compensation	—	—	1,574	—	—	—	1,574
Noncash share based compensation	—	—	9,645	—	—	—	9,645
Net income	—	—	—	—	—	4,966	4,966
Balance at December 31, 2012	27,548,847	32	87,693	4,417,585	(13,938 )	14,882	88,669
Exercise of stock options	354,973	1	3,326	—	—	—	3,327
Restricted stock units net settlement	284,823	—	(3,342 )	—	—	—	(3,342 )
Excess tax benefits from stock based compensation	—	—	2,931	—	—	—	2,931
Noncash share based compensation	—	—	16,272	—	—	—	16,272
Net income	—	—	—	—	—	3,446	3,446
Balance at December 31, 2013	28,188,643	\$ 33	\$ 106,880	4,417,585	\$(13,938 )	\$ 18,328	\$ 111,303

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

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PROS Holdings, Inc.

Notes to Consolidated Financial Statements

1. Organization and Nature of Operations

PROS Holdings, Inc., a Delaware corporation, through its operating subsidiaries (the “Company”), provides big data software applications that are designed to help companies outperform in their markets by using big data to sell more effectively. The Company applies data science 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. The Company offers big data software applications to analyze, execute, and optimize sales, pricing, quoting, rebates and revenue management. The Company also provides professional services to implement its software applications as well as business consulting. In addition, the Company provides product maintenance and support to its customers to receive unspecified upgrades, maintenance releases and bug fixes during the term of the support period on a when-and-if-available basis. The Company provides its big data software applications to enterprises across a range of industries, including manufacturing, distribution, services and travel.

2. Summary of Significant Accounting Policies

Principles of consolidation and basis of presentation

The Consolidated Financial Statements include the accounts of PROS Holdings, Inc., and its wholly-owned subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation. The Consolidated Financial Statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”).

Dollar amounts

The dollar amounts presented in the tabular data within these footnote disclosures are stated in thousands of dollars, except per unit amounts, or as noted within the context of each footnote disclosure.

Use of estimates

The Company’s management makes estimates and assumptions in the preparation of its audited Consolidated Financial Statements in conformity with GAAP. These estimates and assumptions may affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the audited Consolidated Financial Statements and the reported amounts of revenue and expense during the reporting periods. Actual results could differ from those estimates. The complexity of the estimation process and issues related to the assumptions, risks and uncertainties inherent in the application of the percentage-of-completion method of revenue recognition affects the amount of revenue, expenses, unbilled receivables and deferred revenue. Numerous internal and external factors can affect estimates. Estimates are also used for, but not limited to, receivables, allowance for doubtful accounts, useful lives of assets, depreciation and amortization, the fair value of assets acquired and liabilities assumed for business combinations, income taxes and deferred tax asset valuation, valuation of stock options, other current liabilities and accrued liabilities.

Cash and cash equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents. The Company has a cash management program that provides for the investment of excess cash balances, primarily in short-term money market instruments.

Financial instruments

The carrying amount of the Company’s financial instruments, which include cash equivalents, short-term investments, receivables and accounts payable, approximates their fair values at December 31, 2013 and 2012. For additional information on the Company’s fair value measurements, see Note 8 to the Consolidated Financial Statements.

Prepaid expenses and other assets

Prepaid expenses and other assets consist primarily of short-term deferred tax assets, prepaid income taxes, deferred project costs and prepaid third-party license fees.





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### Property and equipment, net

Property and equipment are recorded at cost, less accumulated depreciation. Maintenance, repairs and minor replacements are charged to expense as incurred. Significant renewals and betterments are capitalized. Depreciation on property and equipment, with the exception of leasehold improvements, is recorded using the straight-line method over the estimated useful lives of the assets. Depreciation on leasehold improvements is recorded using the shorter of the lease term or useful life. When property is retired or disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gains or losses are reflected in the Consolidated Statements of Comprehensive Income in the period of disposal.

### Internal-use software

Costs incurred to develop internal-use software during the application development stage are capitalized, stated at cost, and depreciated using the straight-line method over the estimated useful lives of the assets. Application development stage costs generally include salaries and personnel costs and third party contractor expenses associated with internal-use software configuration, coding, installation and testing. Capitalized internal-use software is included in property and equipment, net in the Consolidated Balance Sheets.

### Impairment of long-lived assets

Property and equipment are reviewed for impairment whenever an event or change in circumstances indicates that the carrying amount of an asset or group of assets may not be recoverable. The impairment review includes comparison of future cash flows expected to be generated by the asset or group of assets with the associated assets' carrying value. If the carrying value of the asset or group of assets exceeds its expected future cash flows (undiscounted and without interest charges), an impairment loss is recognized to the extent that the carrying amount of the asset exceeds its fair value. The Company has not recorded any impairment charges in any of the years ended December 31, 2013, 2012 and 2011.

### Intangible Assets and Goodwill

Intangible assets that have finite lives are amortized over their useful lives and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. During this review, the Company reevaluates the significant assumptions used in determining the original cost and estimated lives of long-lived assets. Although the assumptions may vary from asset to asset, they generally include operating results, changes in the use of the asset, cash flows and other indicators of value. Management then determines whether the remaining useful life continues to be appropriate or whether there has been an impairment of long-lived assets based primarily upon whether expected future undiscounted cash flows are sufficient to support the assets' recovery. If impairment exists, the Company would adjust the carrying value of the asset to fair value, generally determined by a discounted cash flow analysis.

Goodwill is not amortized, but is evaluated for impairment annually, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

In assessing the recoverability of goodwill, the Company must make assumptions regarding the estimated future cash flows, and other factors, to determine the fair value of these assets. If these estimates or their related assumptions change in the future, the Company may be required to record impairment charges against these assets in the reporting period in which the impairment is determined. The Company has determined, based on its organizational structure, that it had one reporting unit as of December 31, 2013.

For goodwill, the impairment evaluation includes a comparison of the carrying value of the reporting unit to the fair value of the reporting unit. If the reporting unit's estimated fair value exceeds the reporting unit's carrying value, no impairment of goodwill exists. If the fair value of the reporting unit does not exceed its carrying value, then further

analysis would be required to determine the amount of the impairment, if any.

For the year ended December 31, 2013, the Company adopted ASU No. 2011-08, Intangibles–Goodwill and Other (Topic 350) Testing Goodwill for Impairment. Under ASU 2011-08, the Company has the option to assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount to determine whether further impairment testing is necessary. Based on the results of the qualitative review of goodwill performed as of December 31, 2013, the Company did not identify any indicators of impairment. As such, the two-phase process described above was not necessary.

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### Research and development

Research and development costs for software sold to our customers is expensed as incurred. These costs include salaries and personnel costs, third-party contractor expenses, software development tools, an allocation of facilities and depreciation expenses and other expenses in developing new solutions and upgrading and enhancing existing solutions.

### Treasury stock

The Company makes treasury stock purchases in the open market pursuant to the share repurchase program, which was approved by its Board of Directors on August 28, 2008. The Company accounts for the purchase of treasury stock under the cost method. For additional information on the Company's stock repurchase program, see Note 9 to the Consolidated Financial Statements.

### Revenue recognition

The Company derives its revenue from the licensing and implementation of software solutions and associated software maintenance and support. To a lesser extent, the Company's revenue includes nonsoftware related hosting services. The Company's arrangements with customers typically include: (a) license fees paid for the use of our solutions either in perpetuity or over a specified term and implementation fees for configuration, implementation and training services and (b) maintenance and support fees related to technical support and software updates. 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 fixed or determinable.

In determining whether professional services revenue should be accounted for separately from license revenue, the Company evaluates whether the professional services are considered essential to the functionality of the software using factors such as: the nature of its software products; whether they are ready for use by the customer upon receipt; the nature of professional services; the availability of 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.

If the Company determines that 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 percentage-of-completion computation is measured by the percentage of man-days incurred during the reporting period as compared to the estimated total man-days necessary for each contract for implementation of the software solutions. The Company measures performance under the percentage-of-completion method using total man-day method based on current estimates of man-days to complete the project. The Company believes that for each such project, man-days expended in proportion to total estimated man-days at completion represents the most reliable and meaningful measure for determining a project's progress toward completion. Under our fixed-fee arrangements, should a loss be anticipated on a contract, the full amount is recorded when the loss is determinable.

The Company also licenses software solutions under term license agreements that typically include maintenance during the license term. When maintenance is included for the entire term of the license, there is no renewal rate and the Company has not established vendor specific objective evidence ("VSOE") of fair value for the maintenance on term licenses. For term license agreements, revenue and the associated costs are deferred until the delivery of the solution and recognized ratably over the remaining license term. Revenue from term licenses, which is included in license and

implementation revenue in the Consolidated Statement of Comprehensive Income, represented approximately 3.6%, 4.8% and 5.8% of total revenue for the years ended December 31, 2013, 2012 and 2011, respectively.

For arrangements that include hosting and cloud-based services, we allocate the arrangement consideration between the service and other elements and recognize the hosting and cloud-based services fee ratably beginning on the date the customer commences use of our services and continuing through the end of the customer term. Revenue from hosting and cloud-based services, which is included in license and implementation revenue in the Consolidated Statements of Comprehensive Income, represented approximately 2.4%, 2.6% and 2.3% of total revenue for the years ended December 31, 2013, 2012 and 2011, respectively.

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The Company's customer arrangements typically contain multiple elements that include software license, implementation services and post-implementation maintenance and support. For multiple element arrangements containing our nonsoftware services, the Company must (1) determine whether and when each element has been delivered; (2) determine fair value of each element using the selling price hierarchy of VSOE of fair value, third party evidence ("TPE"), or BESP, as applicable, and (3) allocate the total price among the various elements based on the relative selling price method.

For multiple-element arrangements that contain software and nonsoftware elements such as the Company's hosting service offerings, we allocate revenue between the software and software related elements as a group and any nonsoftware elements based on a relative fair value allocation. We determine fair value for each deliverable using this hierarchy and utilize VSOE of fair value if it exists.

In certain instances, the Company may not be able to establish VSOE for all deliverables in an arrangement with multiple elements. This may be due to infrequently selling each element separately, not pricing solutions or services within a narrow range, or only having a limited sales history. In addition, third party evidence may not be available. When the Company is unable to establish selling prices using VSOE or TPE, it uses BESP in the allocation of arrangement consideration. The objective of BESP is to determine the price at which the Company would transact a sale if the product or service were sold on a stand-alone basis. For transactions that only include software and software-related elements, the Company continues to account for such arrangements under the software revenue recognition standards which require it to establish VSOE of fair value to allocate arrangement consideration to multiple deliverables.

Maintenance and support revenue includes post-implementation customer support and the right to unspecified software updates and enhancements on a when and if available basis. The Company generally invoices for maintenance and support services on a monthly, quarterly or on an annual basis through the maintenance and support period. The Company recognizes revenue from maintenance arrangements ratably over the period in which the services are provided.

Software license and implementation revenue that has been recognized, but for which the Company has not invoiced the customer, is recorded as unbilled receivables. Invoices that have been issued before software license, implementation and maintenance and support revenue has been recognized are recorded as deferred revenue in the accompanying consolidated balance sheets.

### Foreign currency

The Company has contracts denominated in foreign currencies and therefore a portion of the Company's revenue is subject to foreign currency risks. Gains and losses from foreign currency transactions, such as those resulting from the settlement of receivables, are classified in other (expense) income, net included in the accompanying Consolidated Statements of Comprehensive Income.

The Company translates assets and liabilities of its foreign subsidiaries, whose functional currency is the U.S. dollar, at exchange rates in effect at the balance sheet date. The Company translates revenue and expenses using the monthly average exchange rate. The Company includes foreign currency translation adjustments in the accompanying Consolidated Statements of Comprehensive Income.

### Noncash share based compensation

The Company has two noncash share based compensation plans, the 1999 Equity Incentive Plan ("1999 Stock Plan") and the 2007 Equity Incentive Plan ("2007 Stock Plan"), which authorize the discretionary granting of various types of stock awards to key employees, officers, directors and consultants. The Company's 1999 Stock Plan was terminated in

March 2007 for purposes of granting any future equity awards. The Company's 2007 Stock Plan was adopted in March 2007. The Company may provide noncash share based compensation through the grant of: (i) restricted stock awards; (ii) restricted stock unit awards; (iii) stock options; (iv) stock appreciation rights; (v) phantom stock; and (vii) performance awards.

To date, the Company has granted stock options, stock appreciation rights, restricted stock units and market stock units. The Company issues common stock from its pool of authorized stock upon exercise of stock options, settlement of stock appreciation rights and market stock units or upon vesting of restricted stock units. The following table presents the number of awards outstanding for each award type as of December 31, 2013 and 2012:

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	Year Ended December 31,	
	2013	2012
Award type		
Stock options	1,160	1,475
Restricted stock units	1,543	1,183
Stock appreciation rights	721	790
Market stock units	469	205

Stock options. The Company did not grant stock options during 2013 and 2012. The fair value of each stock option was estimated on the date of grant using the Black-Scholes option pricing model.

Restricted stock units. The fair value of the restricted stock units ("RSUs") is based on the closing price of the Company's stock on the date of grant and is amortized over the vesting period.

Stock appreciation rights. Stock appreciation rights ("SARs") will be settled in stock at the time of exercise and vest over four years from the date grant. The Company used the Black-Scholes option pricing model to estimate the fair value of its SARs. The determination of the fair value of SARs utilizing the Black-Scholes model is affected by the Company's stock price and a number of assumptions, including expected volatility, expected life, deliver risk-free interest rate and expected dividends. The Company estimates the expected volatility of common stock at the date of grant based on a combination of its historical volatility and the average volatility of comparable companies. The expected life of the SARs noncash share based payment awards is a historical weighted average of the expected lives of similar securities of comparable public companies. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of the Company's awards. The dividend yield assumption is based on our expectation of paying no dividends.

Market stock units. The market stock units ("MSUs") are performance-based awards that vest based upon the Company's relative shareholder return. The actual number of MSUs that will be eligible to vest is based on the total shareholder return of the Company relative to the total shareholder return of the Russell 2000 Index ("Index") over a two or three year period ending December 31, 2013 and December 31, 2015 ("Performance Period"), respectively. The MSUs granted in 2012 vest on January 1, 2014 and the MSUs granted in 2013 vest on January 1, 2016. The maximum number of shares issuable upon vesting is 200% of the MSUs initially granted based on the average price of our common stock relative to the Index during the Performance Period. The Company estimates the fair value of MSUs on the date of grant using a Monte Carlo simulation model. The determination of fair value of the MSUs is affected by the Company's stock price and a number of assumptions including the expected volatility of the Company's stock and the Index, its risk-free interest rate and expected dividends. The Company's expected volatility at the date of grant was based on the historical volatilities of the Company and the Index over the Performance Period. The Company did not grant any MSUs in 2011.

As the Company issues stock options and SARs, it evaluates the assumptions used to value our stock option awards and SARs. If factors change and the Company employs different assumptions, noncash share based compensation expense may differ significantly from what has been recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, the Company may be required to accelerate, increase or cancel any remaining unearned noncash share based compensation expense. Future noncash share based compensation expense and unearned noncash share based compensation will increase to the extent that the Company grants additional equity awards to employees.

At December 31, 2013, there were an estimated \$29.4 million of total unrecognized compensation costs related to noncash share based compensation arrangements. These costs will be recognized over a weighted average period of 3.0 years. For further discussion of the Company's noncash share based compensation plans, see Note 10 to the Consolidated Financial Statements.

Product warranties

The Company generally issues warranties for 90 days from the completion of implementation, depending on the contract, for software licenses and implementation services. In the Company's experience, warranty costs have been insignificant.

#### Income taxes

The Company uses the asset and liability method to account for income taxes, including recognition of deferred tax assets and liabilities for the anticipated future tax consequences attributable to differences between financial statement amounts and their respective tax basis. The Company reviews its deferred tax assets for recovery. A valuation allowance is established when the Company believes that it is more-likely than not that some portion of its deferred tax assets will not be realized. Changes in the valuation allowance from period to period are included in the Company's tax provision in the period of change.

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The Company accounts for uncertain income tax positions recognized in an enterprise's financial statements in accordance with the income tax topic of the ASC issued by the FASB. This interpretation requires companies to use a prescribed model for assessing the financial recognition and measurement of all tax positions taken or expected to be taken in its tax returns. This guidance provides clarification on derecognition, classification, interest and penalties, accounting in interim periods, disclosures and transition. For additional information regarding the Company's income taxes, see Note 11 to the Consolidated Financial Statements.

### Earnings per share

The Company computes basic earnings (loss) per share by dividing net income (loss) attributable to common stockholders by the weighted average number of common shares outstanding. Diluted earnings (loss) per share is computed by dividing net income (loss) attributable to common stockholders by the weighted average number of common shares and dilutive potential common shares then outstanding. Diluted earnings per share reflect the assumed conversion of all dilutive securities, using the treasury stock method. Dilutive potential common shares consist of shares issuable upon the exercise of stock options, shares of unvested restricted stock units, and settlement of stock appreciation rights. When the Company incurs a net loss, the effect of the Company's outstanding stock options, stock appreciation rights and restricted stock units are not included in the calculation of diluted earnings (loss) per share as the effect would be anti-dilutive. Accordingly, basic and diluted net loss per share are identical.

### Recent accounting pronouncements

In February 2013, the FASB issued ASU 2013-2, Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. This guidance requires the presentation of the effects on the line items of net income of significant amounts reclassified out of accumulated other comprehensive income, but only if the item reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. We adopted the standard on January 1, 2013. The adoption did not have an impact on our consolidated financial position, results of operations or cash flows.

In July 2012, the FASB amended ASC 350, Intangibles — Goodwill and Other. This amendment is intended to simplify how an entity tests indefinite-lived assets other than goodwill for impairment by providing entities with an option to perform a qualitative assessment to determine whether further impairment testing is necessary. The amended provisions were effective for us for the year ended December 31, 2013. This amendment impacts impairment testing steps only, and therefore the adoption did not have an impact on our consolidated financial position, results of operations or cash flows.

### 3. Business Combination

In December 2013, the Company acquired SignalDemand, an optimization software company headquartered in San Francisco, with approximately 40 employees and contractors, for total cash consideration of \$13.5 million. This acquisition broadens the Company's offering for companies in resource-based and commodity-driven industries, helping them to better serve their customers in volatile markets with greater confidence and agility. Through its SaaS-based solutions, SignalDemand processes thousands of variables to deliver real-time recommendations to help companies make price and mix decisions across products, customers and channels.

The acquisition was accounted for using the purchase method of accounting in accordance with ASC 805, Business Combinations. Accordingly, the results of operations of SignalDemand have been included in the accompanying consolidated financial statements since the date of acquisition. The purchase price has been allocated to the tangible and intangible assets acquired and liabilities assumed based upon the respective estimates of fair value as of the date of the acquisition and using assumptions that the Company's management believes are reasonable given the information currently available. While the initial purchase price allocation has been completed, the allocation of the

purchase price is subject to change for a period of one year following the acquisition. Transaction costs associated with the transaction have been expensed as incurred.

The process for estimating the fair values of identifiable intangible assets and certain tangible assets requires the use of significant estimates and assumptions, including estimating future cash flows and developing appropriate discount rates.

During the year ended December 31, 2013, the Company incurred acquisition-related costs of \$0.4 million consisting primarily of advisory, legal fees, and retention of key employees.

The Company recorded revenue and net loss for SignalDemand of approximately \$0.2 million and \$(0.4) million, respectively, in the consolidated statements of operations from the acquisition date through December 31, 2013.

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All of the assets acquired and the liabilities assumed in the transaction have been recognized at their acquisition date fair values at December 16, 2013.

The total purchase price for SignalDemand has been preliminarily allocated as follows:

Current assets	\$881	
Deferred tax asset - current	2,752	
Noncurrent assets	193	
Intangibles	8,300	
Goodwill	7,024	
Deferred tax asset - noncurrent	2,572	
Accounts payable and accrued liabilities	(1,534	)
Deferred revenue	(6,688	)
	\$13,500	

The following are the identifiable intangible assets acquired and their respective useful lives:

	Amount	Useful Life (years)
Developed technology	\$4,600	7
Internally developed technology	160	2
Customer relationships	3,500	8
Trade name	40	2
Total	\$8,300	

In performing the preliminary purchase price allocation, the Company considered, among other factors, its intention for future use of the acquired assets, analyses of historical financial performance, and estimates of future cash flows from SignalDemand's products and services. The allocation resulted in acquired intangible assets of \$8.3 million. The acquired intangible assets consisted of developed technology, customer relationships and trade name and were valued using the income approach in which the after-tax cash flows are discounted to present value. The cash flows are based on estimates used to price the transaction, and the discount rates applied were benchmarked with reference to the implied rate of return from the transaction model as well as the weighted average cost of capital. Additionally, the Company assumed certain liabilities in the acquisition, including deferred revenue to which a fair value of \$6.7 million was ascribed using a cost-plus profit approach.

The Company has made a preliminary determination that \$5.3 million of net deferred tax assets were assumed on the acquisition date. The deferred tax assets primarily relate to net operating losses and other expenses accrued but not expensed for tax purposes.

The excess of the purchase price over the estimated amounts of net assets as of the effective date of the acquisition was allocated to goodwill. The factors contributing to the recognition of the amount of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the SignalDemand acquisition. These benefits include the expectation that the combined company's complementary products will significantly broaden the Company's offerings in sales optimization solutions. The combined company will benefit from a broader global presence, and with the Company's direct sales force and larger channel coverage, the combined company anticipates significant crossselling opportunities. None of the goodwill is expected to be currently deductible for tax purposes.

Pro Forma Financial Informaiton

The unaudited financial information in the table below summarizes the combined results of operations of the Company and SignalDemand, on a pro forma basis, as though the Company had acquired SignalDemand on January 1, 2012. The pro forma information for all periods presented also includes the effect of business combination accounting resulting from the acquisition, including amortization charges from acquired intangible assets.

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(in thousands)	Year Ended December 31,	
	2013	2012
Total revenue	153,648	120,345
Net income (loss)	1,098	(3,252)

## 4. Goodwill and Intangible Assets

The change in the carrying amount of goodwill for the year ended December 31, 2013 was as follows (in thousands):

Balance as of December 31, 2012	\$—
Goodwill acquired	7,024
Balance as of December 31, 2013	\$7,024

Intangible assets acquired from business combination consist of the following as of December 31, 2013 (in thousands):

	Useful Life (years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Developed technology	7	\$4,600	\$27	\$4,573
Internally developed technology	2	160	3	157
Customer relationships	8	3,500	37	3,463
Trade name	2	40	1	39
Total		\$8,300	\$68	\$8,232

As of December 31, 2013, the expected future amortization expense for the acquired intangible assets for each of the five succeeding years and thereafter was as follows (in thousands):

Year Ending December 31,	Amount
2014	\$1,623
2015	1,402
2016	1,147
2017	1,095
2018 and thereafter	2,965
Total amortization expense	\$8,232

## 5. Accounts receivable and contracts in progress

Accounts receivable at December 31, 2013 and 2012, consists of the following:

	December 31,	
	2013	2012
Accounts receivable	\$40,842	\$34,332
Unbilled receivables	6,784	5,229
Total receivables	47,626	39,561
Less: Allowance for doubtful accounts	(1,060)	(760)
Accounts receivable, net	\$46,566	\$38,801



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The bad debt expense reflected in selling, general and administrative expenses in the accompanying Consolidated Statements of Comprehensive Income for the years ended December 31, 2013, 2012 and 2011, totaled approximately \$0.4 million, \$(0.3) million and \$0.2 million, respectively.

Activity related to contracts in progress at December 31, 2013 and 2012, is summarized as follows:

	December 31,	
	2013	2012
Costs and estimated earnings recognized to date	\$221,905	\$228,912
Progress billings to date	(260,372 )	(265,463 )
Total	\$(38,467 )	\$(36,551 )

The foregoing table reflects the aggregate invoiced amount of all contracts in progress and maintenance as of the respective dates, including amounts that have already been collected.

These amounts are included in the accompanying Consolidated Balance Sheets at December 31, 2013 and 2012, as follows:

	December 31,	
	2013	2012
Unbilled receivables	\$6,784	\$5,229
Deferred revenue	(45,251 )	(41,780 )
Total	\$(38,467 )	\$(36,551 )

At December 31, 2013 and 2012, the Company had approximately \$11.4 million and \$11.1 million, respectively, in deferred maintenance and support revenue, which is reflected above within deferred revenue and progress billing.

#### 6. Earnings per share

The following table sets forth the computation of basic and diluted earnings per share:

	For the Year Ended December 31,		
	2013	2012	2011
Numerator:			
Net income attributable to common stockholders	\$3,446	\$4,966	\$6,350
Denominator:			
Weighted average shares (basic)	28,004	27,366	26,832
Dilutive effect of stock options, restricted stock units and stock appreciation rights	2,110	1,054	930
Weighted average shares (diluted)	30,114	28,420	27,762
Basic earnings per share	\$0.12	\$0.18	\$0.24
Diluted earnings per share	\$0.11	\$0.17	\$0.23

Approximately 14,000, 416,000 and 893,000 of potential common shares have not been considered in the diluted earnings per calculation for the years ended December 31, 2013, 2012 and 2011, respectively, as the effect would be anti-dilutive.

#### 7. Property and equipment, net

Property and equipment, net as of December 31, 2013 and 2012 consists of the following:

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	Estimated useful life	December 31,	
		2013	2012
Furniture and fixtures	7-10 years	\$2,423	\$2,371
Computers and equipment	3-5 years	10,857	9,477
Software	2-5 years	4,322	4,123
Capitalized internal-use software development costs	3 years	5,064	2,013
Leasehold improvements	Shorter of lease term or useful life	4,568	3,550
Construction in progress		305	532
Property and equipment, gross		27,539	22,066
Less: Accumulated depreciation and amortization		(11,952)	(9,278)
Property and equipment, net		\$15,587	\$12,788

Depreciation and amortization was approximately \$4.2 million, \$2.2 million and \$1.6 million for the years ended December 31, 2013, 2012 and 2011, respectively. During the years ended December 31, 2013, 2012 and 2011, the Company disposed of approximately \$1.5 million, \$0.8 million and \$3.2 million, respectively, of fully depreciated assets. As of December 31, 2013 and 2012, the Company had approximately \$3.8 million and \$4.2 million, respectively, of fully depreciated assets in use.

Software includes approximately \$0.4 million related to the acquisition and implementation of a new enterprise resource planning system during the year ended December 31, 2012. Also during the years ended December 31, 2013 and 2012, the Company capitalized internal-use software development costs of approximately \$3.1 million and \$2.0 million, respectively, related to its cloud-based offerings. During the years ended December 31, 2013 and 2012, approximately \$1.7 million and \$0.9 million, respectively, of capitalized internal-use software development cost were subject to amortization. Included in accumulated depreciation and amortization is approximately \$0.5 million and \$0.1 million, respectively, of amortization related to capitalized internal-use software development costs.

## 8. Fair value measurements

The Company adopted fair value measurements guidance for financial and nonfinancial assets and liabilities. The guidance defines fair value, establishes a framework for measuring fair value in GAAP and expands disclosures about fair value measurements.

The guidance defines fair value as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants. The guidance establishes a fair value hierarchy for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2: Quoted prices for similar assets or liabilities in markets that are not active or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability; and

Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

A portion of the Company's existing cash and cash equivalents are invested in short-term interest bearing obligations with original maturities less than 90 days, principally various types of money market funds. In addition, the Company had short-term investments consisting of certificates of deposit. The Company does not enter into investments for trading or speculative purposes.

At December 31, 2013 and 2012, the Company had approximately \$21.0 million and \$58.0 million invested in treasury money market funds, respectively. These investments are required to be measured at fair value on a recurring basis. The fair value of these accounts is determined based on quoted market prices, which represents level 1 in the fair value hierarchy. The Company's diversified money market funds, treasury money market funds and short term



investments have a fair value that is not materially different from its carrying amount.

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9. Stockholders' equity

Stock repurchase

On August 25, 2008, the Company's Board of Directors approved a stock repurchase program that authorized the Company to purchase up to \$15.0 million of the Company's outstanding shares of 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.

The Company did not repurchase any shares under this plan for the years ended December 31, 2013 and 2012. The remaining amount available to purchase common stock under this plan was \$10.0 million as of December 31, 2013.

10. Noncash share based compensation

Employee noncash share based compensation plans:

The Company has two noncash share based compensation plans; the 1999 Stock Plan and the 2007 Stock Plan. These plans authorize the discretionary granting of various types of stock awards to key employees, officers, directors and consultants. The discretionary issuance of stock awards generally contains vesting provisions ranging from one to four years.

**1999 Stock Plan.** Under the 1999 Stock Plan, the Company is authorized to grant options to purchase shares of common stock to its employees, directors and consultants at the Company's discretion. The Company's 1999 Stock Plan was terminated in March 2007 for purposes of granting any future equity awards. There were issued and outstanding stock options to purchase 33,325 shares of the Company's common stock under the 1999 Stock Plan as of December 31, 2013.

**2007 Stock Plan.** The Company's 2007 Stock Plan was adopted in March 2007. The purpose of the 2007 Stock Plan is to promote the Company's long-term growth and profitability. The 2007 plan is intended to make available incentives that will help the Company to attract, retain and reward employees whose contributions are essential to its success. Under the 2007 Stock Plan, the Company's employees, officers, directors and other individuals providing services to the Company or any of its affiliates are eligible to receive awards. The 2007 Stock Plan has an evergreen provision that allows for an annual increase equal to the lesser of (i) 3.5% of the Company's outstanding shares (ii) 900,000 shares or (iii) any lesser amount determined by the Compensation Committee of the Board of Directors. The Company may provide these incentives through the grant of: (i) restricted stock awards; (ii) restricted stock unit awards; (iii) stock options; (iv) stock appreciation rights; (v) phantom stock; and (vii) performance awards.

In February 2012, the Company increased the number of shares available to grant by 900,000 under the evergreen provision in the Company's 2007 Stock Plan, increasing the number shares reserved for issuance to 7,268,000. As of December 31, 2013, the Company had outstanding equity awards to acquire 3,893,482 shares of its common stock held by the Company's employees, directors and consultants under the 2007 Stock Plan. Included in the outstanding equity awards are 1,160,464 of stock options, 1,542,990 RSUs, 721,028 SARs and 469,000 MSUs held by the Company's employees, directors and consultants. As of December 31, 2013, 466,611 shares remain available for grant under the 2007 Stock Plan. As of December 31, 2013, there were no restricted stock awards or phantom stock issued under the 2007 Stock Plan.

Noncash share based compensation expense for all noncash share based payment awards granted is determined based on the grant-date fair value of the award. The Company recognizes compensation expense, net of estimated forfeitures, which represents noncash share based awards expected to vest on a straight-line basis over the requisite service period of the award, which is generally the vesting term. Noncash share based awards typically vest over four years. Stock options are generally granted for a ten-year term. The Company estimates forfeiture rates based on its

historical experience for grant years where the majority of the vesting terms have been satisfied. Changes in estimated forfeiture rates are recognized through a cumulative catch-up adjustment in the period of change and thus impact the amount of noncash share based compensation expense to be recognized in future periods.

Noncash share based compensation expense is allocated to expense categories on the Consolidated Statements of Comprehensive Income. The following table summarizes noncash share based compensation expense, net of amounts capitalized, for the years ended December 31, 2013, 2012 and 2011.

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	For the Year Ended December 31,		
	2013	2012	2011
Share-based compensation:			
Cost of revenue:			
License and implementation	\$2,071	\$1,451	\$1,201
Total included in cost of revenue	2,071	1,451	1,201
Operating expenses:			
Selling, marketing, general and administrative	10,889	6,273	4,038
Research and development	3,139	1,921	1,593
Total included in operating expenses	14,028	8,194	5,631
Total share-based compensation expense	\$16,099	\$9,645	\$6,832

At December 31, 2013, there was an estimated \$29.4 million of total unrecognized compensation costs related to noncash share based compensation arrangements. These costs will be recognized over a weighted average period of 3.0 years.

## Stock Options:

The following table summarizes the Company's stock option activity for the year ended December 31, 2013:

	Number of shares under option	Weighted average exercise price	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Outstanding, December 31, 2012	1,475	\$ 11.24		
Granted	0	—		
Exercised	(315)	11.66		
Forfeited	0	—		
Expired	0	—		
Outstanding, December 31, 2013	1,160	\$ 11.12	3.7	\$33,396
Vested and exercisable at December 31, 2013	1,160	\$ 11.12	3.7	\$33,396

(1) The aggregate intrinsic value was calculated based on the positive difference between the estimated fair value of the Company's common stock on December 31, 2013 of \$39.90 and the grant date fair value.

For the years ended December 31, 2013 and 2012, respectively, the Company did not grant any stock options. The total intrinsic value of stock options exercised for the years ended December 31, 2013, 2012 and 2011 was \$5.2 million, \$0.6 million and \$1.7 million, respectively.

## RSUs:

The Company has granted RSUs under the 2007 Stock Plan. Generally, RSUs granted to employees, directors and consultants vest in equal annual installments over a one to four year period from the grant date. At December 31, 2013 there were 1,542,990 shares related to RSUs outstanding and unvested.

The following table summarizes the Company's unvested RSUs as of December 31, 2013, and changes during the year then ended, is as follows:

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	Number of shares	Weighted average grant date fair value	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Unvested at December 31, 2012	1,183	\$ 15.55		
Granted	851	20.08		
Vested	(405	) 14.35		
Forfeited	(86	) 17.53		
Unvested at December 31, 2013	1,543	\$ 18.25	5.3	\$61,565
Expected to vest at December 31, 2013	1,500	\$ 18.21	5.3	\$59,843

(1) The aggregate intrinsic value was calculated based on the fair value of the Company's common stock on December 31, 2013 of \$39.90.

The weighted average grant-date fair value of the RSUs granted during the years ended December 31, 2013, 2012 and 2011 was \$20.08, \$18.65 and \$14.13, respectively.

**SARs:**

The Company has granted SARs under the 2007 Stock Plan. The SARs will be settled in stock at the time of exercise and vest four years from the date of grant subject to the recipient's continued employment with the Company. The number of shares issued upon the exercise of the SARs is calculated as the difference between the share price of the Company's stock on the date of exercise and the date of grant multiplied by the number of SARs divided by the share price on the exercise date.

The following table summarizes the Company's SARs activity for the year ended December 31, 2013:

	Stock appreciation rights	Weighted average exercise price	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Outstanding, December 31, 2012	790	\$ 10.66		
Granted	—	—		
Exercised	(64	) 9.84		
Forfeited	(3	) 10.02		
Expired	(2	) 11.42		
Outstanding, December 31, 2013	721			