MANHATTAN ASSOCIATES INC
Form 10-K
February 05, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2015

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: 000-23999

Manhattan Associates, Inc.

(Exact name of registrant as specified in its charter)

Georgia (State or other jurisdiction of incorporation or organization)	58-2373424 (I.R.S. Employer Identification No.)
2300 Windy Ridge Parkway, Tenth Floor Atlanta, Georgia (Address of principal executive offices)	30339 (Zip Code)

Registrant's telephone number, including area code: (770) 955-7070

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

Title of each class	Name of each exchange on which registered
Common Stock, $.01 par value per share	The Nasdaq Stock Market LLC

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 þ No ¨

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

Note – Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Exchange Act from their obligations under those Sections.

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 þ 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 þ No ¨

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer þ	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 þ

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant as of June 30, 2015 was $4,379,735,575, which was calculated based upon a closing sales price of $59.65 per share of the Common Stock as reported by the Nasdaq Global Select Market on the same day. As of January 31, 2016, the Registrant had outstanding 72,998,434 shares of Common Stock.

DOCUMENTS INCORPORATED BY REFERENCE

The Registrant’s definitive Proxy Statement for the Annual Meeting of Shareholders to be held May 12, 2016 is incorporated by reference in Part III of this Form 10-K to the extent stated herein.

MANHATTAN ASSOCIATES, INC.

Annual Report on Form 10-K

For the Fiscal Year Ended December 31, 2015

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Forward-Looking Statements

Certain statements contained in this filing are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including but not limited to statements related to expectations about global macroeconomic trends and industry developments, plans for future business development activities, anticipated costs of revenues, product mix and service revenues, research and development and selling, general and administrative activities, and liquidity and capital needs and resources. When used in this Annual Report, the words “may,” “expect,” “forecast,” “anticipate,” “intend,” “plan,” “believe,” “could,” “seek,” “project,” “estimate,” and similar expressions are general to identify forward-looking statements. Undue reliance should not be placed on these forward-looking statements, which reflect opinions only as of the date of this Annual Report. Such forward-looking statements are subject to risks, uncertainties, and other factors that could cause actual results to differ materially from future results expressed or implied by such forward-looking statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those contemplated by such forward-looking statements.

Some of the factors that could cause actual results to differ materially from the results discussed in forward-looking statements include:

- economic, political and market conditions;
- ability to attract and retain highly skilled employees;
- competition;
- our dependence on a single line of business, as well as our dependence on generating license revenue to drive business;
- risks associated with large system implementations;
- the requirement to maintain high quality professional service capabilities;
- possible compromises of our data protection and IT security measures;
- the risks of international operations, including foreign currency exchange risk;
- the possibility that research and developments investments may not yield sufficient returns;
- possible liability to customers if our products fail;
- undetected errors or “bugs” in our software;
- the long sales cycle associated with our products;
- the difficulty of predicting operating results;
- the need to continually improve our technology;
- risks associated with managing growth;
- reliance on third party and open source software;
- the need for our products to interoperate with other systems;
- the need to protect our intellectual property, and our exposure to intellectual property claims of others; and
- other risks described under the heading “Risk Factors” in Part I, Item 1A of this Annual Report.

We undertake no obligation to update or revise forward-looking statements to reflect changed assumptions, the occurrence of unanticipated events or changes in future operating results.

PART I

Item 1. Business

Overview

Manhattan Associates was founded in 1990 in Manhattan Beach, California and incorporated in Georgia in 1998. References in this filing to the "Company," "Manhattan," "Manhattan Associates," "we," "our" and "us" refer to Manhattan Associates, Inc., our predecessors, and our wholly-owned and consolidated subsidiaries. Our principal executive offices are located at 2300 Windy Ridge Parkway, Tenth Floor, Atlanta, Georgia 30339, and our telephone number is 770-955-7070.

We develop, sell, deploy, service and maintain software solutions designed to manage supply chains, inventory and omni-channel operations for retailers, wholesalers, manufacturers, logistics providers and other organizations. Our customers include many of the world's premier and most profitable brands.

Specifically, Manhattan Associates solutions help our customers in three distinct areas of their business:

- Supply Chain - Manhattan solutions provide companies across industries the tools needed to manage distribution and optimize transportation costs throughout the entire network. Manhattan provides shippers the most comprehensive transportation management solutions in the market. This includes moving freight via the most cost-effective means possible while also meeting service level expectations. Likewise, Manhattan's Warehouse Management solutions are widely regarded as industry-leading systems designed to optimize productivity and throughput in distribution centers and warehouses around the world.
- Omni-Channel - Meeting ever-evolving consumer expectations of service, inventory availability and delivery convenience is a challenge every retailer must meet head on. Manhattan's Omni-Channel solutions provide both 'central' or corporate solutions that manage inventory availability across all channels and locations as well as 'local' solutions deployed in retail stores to empower store associates to satisfy the demands of the walk-in shopper and the online customer.
- Inventory - Manhattan solutions provide distributors of any finished goods (apparel, food, auto parts, pharmaceuticals, etc.) the ability to forecast demand, determine when, where and how much inventory is needed and translate this into a profitable inventory buying plan. Through the use of advanced science and sophisticated analytics, customer service level is maximized with the minimum necessary inventory investment. Industry changes driven by omni-channel retail, pharmaceutical regulations and other trends make this an area of particular need for many retailers and wholesale distributors.

Manhattan Associates' Software Solution Portfolios

Our portfolio of solutions takes a platform-based approach to the following key areas. This approach implies a single, holistic technology architecture that provides customers with three major benefits:

- Cross-Functional Business Solutions - By virtue of shared data, taxonomy and interfaces, a platform solution enables the organization to tackle business challenges that might otherwise be too technically daunting to achieve. For instance, the ability to apportion freight, labor, inventory handling and overhead costs across the supply chain to determine an item's total cost to serve for an end customer normally requires a massive integration and harmonization effort. With a platform like Manhattan's, this is simply another module that taps into a readily available pool of data in the supply chain and inventory solutions.
- Total Cost of Ownership - A single set of tools to administrate security, resource management, system configuration and integration across all three functional disciplines allows for economies of scale within IT departments. The use

of standard technologies, development tools and languages also ensures needed technical skills are readily available in the marketplace.

- The Power of Shared Components - When an organization has multiple disparate systems, there are frequently redundant capabilities found across the enterprise. Examples include yard management, parcel shipping and inventory visibility. The consequences of duplicate systems range from the simple confusion brought on by different naming conventions to the expensive and complex data becoming out of sync, resulting in missed appointments, chargebacks and other issues.

Supply Chain Solutions

As previously described, Supply Chain solutions are focused on the distribution and transportation operations of the enterprise. There are four main components of Manhattan's Supply Chain Solutions:

- Distribution Management - These applications comprise Manhattan's Warehouse Management Solutions (WMS) commonly used to manage the complexity of the modern warehouse. They manage the flow of goods and information across the distribution center. The complete distribution management suite not only includes capabilities focused on execution within the distribution center, but also on the management of personnel, performance and the overall distribution center layout. All of these solutions come together to provide the customer the most productive workforce with an operation that can scale to meet the highest demands during peak season, yet can still operate effectively and profitably throughout the course of the year.
- Transportation Management - Organizations today face a complex transportation environment with ever-changing demands driven by macro-economic trends and governmental regulations. Manhattan's Transportation Management Solutions (TMS) are designed to help shippers navigate their way through these demands while meeting customer service expectations at the lowest possible freight costs. Components include procurement and modeling tools to setup a network that can be successful, along with planning, execution and settlement tools to manage day-to-day transportation requirements.
- Supply Chain Convergence - Unique to Manhattan's platform approach are a set of common components that for most solutions are either in a WMS or a TMS. These include tools designed to manage the scheduling of appointments with carriers and suppliers as well as oversee operations of the yard.
- Visibility - Crucial to effective supply chain management is visibility into the movement of goods between locations in the supply chain and outside the enterprise's realm of control. Manhattan provides world-class visibility and event management tools that not only provide alerts to when events occur in the supply chain, but also when they don't occur (such as missing a vessel overseas) that can have a cascading effect on production lines, freight and most importantly, customer commitments.

Omni-Channel Solutions

As omni-channel retail has placed new demands on organizations, it has also created new software solution needs. These demands range from the ability to leverage inventory across the entire network to meet any demand, to providing store associates and call center representatives the means to take advantage of the available inventory.

Omni-Channel Central Solutions - There is a wide range of new capabilities that must be leveraged at a corporate or 'central' level in retail today. The goal is to enable an omni-channel commerce platform that can be tapped into by any selling system—webstore, ERP, point-of-sale, call center, mobile app, etc. Manhattan's Enterprise Inventory builds out a complete inventory availability picture that can be updated in near-real time with feeds from the warehouse, the store and the network. Enterprise Order Management merges this inventory availability data with demand feeds from across the organization to match supply with demand in a way that satisfies customer delivery expectations while also striving to maximize profitability. Lastly, the Call Center application provides representatives access to this inventory picture as well as complete customer sales history to satisfy shopper needs, regardless of whether it is an exchange, a return or a new order.

Omni-Channel Local Solutions - Just as the consumer enters the store with more information than ever, it is now vital to equip the sales associate with all relevant information and capabilities to satisfy that shopper's every demand. Local solutions include mobile Point of Sale to process any purchase transactions, Clienteling to provide the associate with a complete picture of the shopper's purchase history, and Tablet Retailing to offer a virtual showroom. When all of these solutions come together on a single mobile platform, retailers are able to offer unparalleled service and convenience for the shopper.

Also an important part of Local solutions are Store Inventory and Fulfillment. Most retailers are now looking to leverage store inventory to fulfill ecommerce demand (driving greater sales revenue with less inventory). In order to achieve this, solutions that can maintain inventory integrity and enable productive, reliable fulfillment are required.

Inventory Solutions

The ability to accurately forecast demand and project inventory needs is only heightened by omni-channel retail requirements that change traditional approaches to inventory management. Manhattan's Inventory solutions address both the questions of what products should be carried and how much is needed at what locations and dates.

Inventory Optimization - This set of applications includes sophisticated demand forecasting capabilities that can address the particularly challenging slow-moving and intermittent products that frequently result in excess inventory due to unpredictability. Also included is the Replenishment module that can evaluate inventory needs across all locations and channels. This module can even suggest transferring inventory between locations (warehouses or stores) or 'protect' merchandise at a store from online sales in order to save it for walk-in traffic.

Planning - Manhattan's Planning solutions provide merchants the tools they need to create channel-, store- or region-specific assortments. These tools offer channel-specific metrics and methodologies that optimize the planning process and maximum retailer revenues.

Manhattan SCALE™

SCALE is our portfolio of logistics execution solutions built on Microsoft's .NET® platform. Purpose built for rapid development and a value based total cost of ownership, it is targeted toward companies with execution-focused supply chain needs that require speed-to-value, resource-light system configuration and maintenance, and the ability to quickly scale their logistics operations up or down in response to market fluctuations or business requirement changes. SCALE combines the features of Trading Partner Management, Yard Management, Optimization, Warehouse Management and Transportation Execution.

Because SCALE leverages a common platform, solutions share common data elements and each user can access all applications through a single sign-on. Users also can set up "dashboards" that enable easy access to real-time information most relevant to their jobs. SCALE's ease of deployment, operation and support make it a popular choice for organizations operating in countries with emerging and developing economies, and where technical support resources are limited.

Technology Platform

Our solutions operate across Unix, IBM System i, Linux and Microsoft's .NET computing platforms, as well as on multiple hardware platforms and systems. Because supply chain solutions necessarily interact with other business operation systems, our solutions are designed to interoperate with software from other providers as well as with a company's existing legacy systems. This interfacing and open system capability enables customers to continue using existing computer resources and to choose among a wide variety of existing and emerging computer hardware and peripheral technologies. We provide an integration framework to facilitate rapid and reliable integration to any Enterprise Resource Planning (ERP) or host business systems (including certified integration to both SAP and Microsoft Dynamics AX). We also offer certain of our solutions in both on-premise software and cloud computing models so that customers can select the option that best meets their requirements for control, flexibility, cost of ownership, and time-to-deployment.

Professional Services

We advise and assist our customers in planning and implementing our solutions through our global Professional Services Organization. To ensure long-term successful customer relationships, consultants assist customers with the initial deployment of our systems, the conversion and transfer of the customer's historical data onto our systems, and ongoing training, education, and system upgrades. We believe our Professional Services teams enable customers to implement our solutions knowledgeably and in the appropriate amount of time, help customers achieve expected results from system investments, continuously identify new opportunities for supply chain advancements, and meaningfully add to our industry-specific knowledge base to improve future implementations and product innovations.

Substantially all of our customers utilize some portion of our Professional Services to implement and support our software solutions. Professional Services typically are rendered under time and materials contracts, with services billed by the hour. Professional Services sometimes are rendered under fixed-fee contracts, with payments due on specific dates or milestones. We believe that increased sales of our software solutions will drive higher demand for our Professional Services.

We believe our Professional Services team delivers deep supply chain and enterprise commerce domain expertise to our customers through industry-specific "best-practices" protocols and processes developed through the collective knowledge we have gained from 26 years of implementing our supply chain solutions worldwide. We also extensively train our consulting personnel on enterprise commerce operations and on our solutions.

Business consultants, systems analysts, and technical personnel assist customers in all phases of implementing our systems, including planning and design, customer-specific module configuration, on-site implementation- or conversion from existing systems, and integration with customer systems such as Enterprise Resource Planning (ERP), web- and mobile-based commerce platforms, and Material Handling Equipment (MHE) systems. At times, third-party consultants, such as those from major systems integrators, assist our customers with certain implementations.

Customer Support Services and Software Enhancements

We offer a comprehensive program that provides our customers with software upgrades for additional or improved functionality and technological advances incorporating emerging supply chain and industry initiatives. Over the past three years, our annual renewal rate of customers subscribing to comprehensive support and enhancements has been greater than 90%. We are able to remotely access customer systems to perform diagnostics, provide on-line assistance, and facilitate software upgrades. We offer 24-

hour customer support every day of the year, plus software upgrades for an annual fee that is paid in advance and is based on the solutions the customer has and the service level required. Software upgrades are provided under this program on a when-and-if- available basis.

Training and Change Management Services

We offer training and change management services for new and existing users, enabling our customers to align systems, people and processes. Services provided by our Manhattan training experts cover a wide range of support from the intended design to the front-line of the customer's business, including critical end-user adoption with hands-on, live training in a virtualized Manhattan software environment. These programs are provided at fixed fees per-person, per-class. In addition, several computer-based training programs can be purchased for a fixed fee for use at client sites.

Manhattan Training and Change Management Services are offered under six categories: Role-Based Training Paths, Comprehensive Training Programs, Change Management Services, Individual Product Training Courses, End-User Enablement and Knowledge Resources.

Hardware Sales

Along with software licenses, and as a convenience for our customers, we resell a variety of hardware developed and manufactured by others, including (but are not limited to) computer hardware, radio frequency terminal networks, RFID chip readers, bar code printers and scanners, and other peripherals. We resell all third-party hardware products and related maintenance pursuant to agreements with manufacturers or through distributor-authorized reseller agreements pursuant to which we are entitled to purchase hardware products and services at discount prices and to receive technical support in connection with product installations and any subsequent product malfunctions. We do not maintain hardware inventory as we generally purchase hardware from vendors only after receiving related customer orders.

Strategy

Our objective is to extend our position as the leading global commerce solutions provider for organizations intent on creating and sustaining market advantages through technology-enabled commerce solutions. Our solutions help global distributors, wholesalers, retailers, logistics providers and manufacturers successfully manage accelerating and fluctuating market demands, as well as master the increasing complexity and volatility of their local and global supply chains. We believe our solutions are advanced, highly functional and highly scalable. They are designed to enable organizations to: create customer experiences consistent with their brand values; improve relationships with suppliers, customers and logistics providers; leverage investments across supply chain functions; effectively generate revenue and manage costs; and meet dynamically changing customer requirements. We believe our solutions are uniquely positioned to holistically optimize the way companies bring together omni-channel, supply chain and inventory management:

Develop and Enhance Software Solutions. We intend to continue to focus our research and development resources on enhancing our Supply Chain, Omni-Channel Commerce and Inventory Solutions. We offer what we believe to be the broadest and most richly-featured software portfolio in the marketplace. To continuously expand functionality and value, we plan to continue to provide enhancements to existing solutions and to introduce new solutions to address evolving industry standards and market needs. We identify these opportunities through our Product Management, Professional Services, Customer Support and Account Management organizations, through interactions such as ongoing customer consulting engagements and implementations, sessions with our solution user groups, association with leading industry analyst and market research firms, and participation on industry standards and research committees. Our solutions address needs in various vertical markets, including retail, consumer goods, food and grocery, logistics service providers, industrial and wholesale, high technology and electronics, life sciences and government. We intend to continue to enhance our solutions to meet the dynamic requirements of these and new vertical markets as business opportunities dictate.

Expand International Presence. We believe our solutions offer significant benefits to customers in markets outside the United States, and for organizations with global operations. We have offices in Australia, China, France, India, Japan, the Netherlands, Singapore, and the United Kingdom, as well as representatives in Mexico and reseller partnerships in Latin America, Eastern Europe, the Middle East, South Africa, and Asia. Our Europe, Middle East, and Africa (EMEA) operations support sales, implementation services, and customer support functions for customers in Europe as well as a number of customers across the Middle East, concentrated in countries we consider politically and economically stable. Our Asia Pacific (APAC) operations service emerging opportunities in China, Southeast Asia, and India, as well as more established markets in Japan, Australia and New Zealand. Our international strategy includes leveraging the strength of our relationships with current U.S. and Europe-based customers that also have significant international operations.

Strategic Alliances and Indirect Sales Channels. We currently sell our products primarily through our direct sales personnel, and through partnership agreements with a select number of organizations in emerging markets where we do not currently have a direct sales presence. We have worked on joint projects and joint sales initiatives with industry-leading consultants and software systems implementers, including most of the large consulting firms specializing in our targeted industries, to supplement our direct sales force and professional services organization. We expand our indirect sales channels through reseller agreements, marketing agreements, and agreements with third-party logistics providers. These alliances extend our market coverage and provide us with new business leads and access to trained implementation personnel.

Acquire or Invest in Complementary Businesses. We continuously evaluate strategic acquisition opportunities of technologies, solutions, and businesses that are consistent with our platform-based strategy and enable us to enhance and expand our offerings. Preferred acquisition targets are those that would be complementary to our existing solutions and technologies, expand our geographic presence and distribution channels, extend our presence into additional vertical markets with challenges and requirements similar to those we currently serve, and further solidify our leadership position within the primary components of supply chain planning and execution.

Sales and Marketing

We employ multi-disciplinary sales teams that consist of professionals with industry experience in sales and technical sales support. To date, we have generated the majority of our software sales (licensing) revenue through our direct sales force. We plan to continue to invest in our sales, services, and marketing organizations within the United States, EMEA, and APAC, and to pursue strategic marketing partnerships. We conduct comprehensive global marketing programs that include prospect profiling and targeting, lead generation, public relations, analyst relations, trade show attendance and sponsorships, supply chain conference hosting, online marketing, joint promotion programs with vendors and consultants, and ongoing customer communication programs.

Our sales cycle typically begins with the generation of a sales lead — through in-house telemarketing efforts, targeted promotions, web inquiries, trade show presence, speaking engagements, hosted seminars, or other means of referral — or the receipt of a request for proposal from a prospective customer. Leads are qualified and opportunities are closed through a process that includes telephone-based assessments of requirements; responses to requests for proposals, presentations and product demonstrations, site visits and/or reference calls with organizations already using our supply chain solutions, and contract negotiations. Sales cycles vary substantially from opportunity to opportunity, but typically require nine to twelve months.

In addition to new customer sales, we plan to continue to leverage our existing customer base to drive revenue from system upgrades, sales of additional licenses of purchased solutions, and sales of new or add-on solutions. To efficiently penetrate emerging global markets, we leverage indirect sales channels, including sales through reseller agreements, marketing agreements, and agreements with third-party logistics providers. To extend our market coverage, generate new business leads, and provide access to trained implementation personnel, we leverage strategic alliances with systems integrators skilled at implementing our solutions. Business referrals and leads are positively influenced by systems integrators, which include most of the large consulting firms and other systems consulting firms specializing in our targeted industries.

Our Manhattan Value Partner (Manhattan MVP™) and Manhattan GeoPartner™ programs foster joint sales and marketing with other organizations. Manhattan Value Partners are proven software and hardware providers, trusted third-party integrators and consultants who bring added value to customer engagements through vertical industry knowledge or technical specialization. Manhattan MVPs support and complement our supply chain solutions so we can provide customers with a comprehensive approach that is suited to their business requirements. This collaborative program is designed to benefit both Manhattan and our partners through tailored joint marketing, sales and, in some cases, co-development efforts. Among others, Manhattan MVPs include IBM, Deloitte, Kurt Salmon, Microsoft, Cap Gemini and Intel. Manhattan GeoPartners represent a select group of companies that sell and implement our solutions in specific geographies around the world, each providing valuable localized expertise to meet customer needs in areas such as Western Europe, Eastern Europe, Russia, the Middle East, Latin America, Africa, and the Asia Pacific region.

Customers

To date, our customers have been suppliers, manufacturers, distributors, retailers, and logistics providers in a variety of industries. Our top five customers (new or pre-existing) in the aggregate accounted for 8%, 10%, and 11% of total revenue for the years ended December 31, 2015, 2014, and 2013, respectively. No single customer accounted for more than 10% of our total revenue in 2015, 2014, or 2013.

Product Development

We focus our development efforts on new product innovation and adding new functionality to existing solutions, integrating our various solution offerings, enhancing the operability of our solutions across our Process Platform and across distributed and alternative hardware platforms, operating systems, and database systems. We believe that our future success depends, in part, on our ability to continue to enhance existing solutions, to respond to dynamically changing customer requirements, and to develop new or enhanced solutions that incorporate new technological developments and emerging supply chain and industry standards. To that end, development frequently focuses on base system enhancements and incorporating new user requirements and features into our solutions. As a result, we deliver packaged, highly configurable solutions with increasingly rich functionality rather than custom-developed software. We also deliver interface toolkits for many major ERP systems to enhance communication and improve data flows between our core solutions and our clients' host systems.

We leverage internal and external scientific advisors to inform our solution strategies and research and development approaches with the most advanced thinking on supply chain opportunities, challenges, and technologies. Our internal research team is comprised of Ph.D.-credentialed math and science experts who work on creating and solving algorithms and other constructs that advance the optimization capabilities and other aspects of our solutions. We also regularly communicate with and are advised by experts from leading educational institutions known for their supply chain disciplines, and practitioners from organizations deploying supply chain technology in innovative and market-advancing ways. Together, our research team and external advisors inform both the practical business approaches and the mathematical and scientific inventiveness of our solutions.

We conduct most research and development internally in the U.S. and India to retain domain knowledge and to promote programming continuity standards. However, we may periodically outsource some projects that can be performed separately and/or that require special skills. We also use third-party translation companies to localize our application software into various languages such as, but not limited to, Chinese, French, Japanese, and Spanish.

Our research and development expenses for the years ended December 31, 2015, 2014, and 2013 were $53.9 million, $49.0 million, and $44.5 million, respectively. We intend to continue to invest significantly in product development.

Competition

Our solutions are solely focused on enterprise commerce capabilities, which have been consolidating rapidly, are intensely competitive, and are characterized by rapid technological change. The principal competitive factors affecting the markets for our solutions include: industry expertise; company and solution reputation; company viability; compliance with industry standards; solution architecture; solution functionality and features; integration experience, particularly with ERP providers and material handling equipment providers; ease and speed of implementation; proven return on investment; historical and current solution quality and performance; total cost of ownership; solution price; and ongoing solution support structure. We believe we compete favorably with respect to each of these factors.

Our competitors are diverse and offer a variety of solutions directed at various aspects of enterprise commerce. Our existing competitors include:

- Corporate information technology departments of current or potential customers capable of internally developing solutions;
- ERP vendors, including Oracle, SAP, and Infor, among others;
- Supply chain execution vendors, including JDA Software Group, Inc. (JDA), HighJump Software Inc., and the Sterling Commerce division of IBM, among others;
- Point of sale vendors, including Aptos, Inc., Demandware, Inc., NCR Corporation, among others;
- Supply chain planning vendors, including JDA and SAS Institute Inc., among others; and
- Smaller independent companies that have developed or are attempting to develop supply chain execution solutions and/or planning solutions that apply in specific countries and/or globally.

We anticipate facing increased competition from ERP and supply chain management (SCM) applications vendors and business application software vendors that may broaden their solution offerings by internally developing or by acquiring or partnering with independent developers of supply chain planning and execution software. Some of these ERP and other potential competitors have longer operating histories; significantly more financial, technical, marketing and other resources; greater name recognition; broader solutions; and larger installed bases of customers than us. To the extent that ERP and SCM vendors or other large competitors develop or acquire systems with functionality comparable or superior to ours, their larger customer bases, long-standing customer relationships, and ability to offer broader solutions outside the scope of supply chain could create significant competitive advantage for them. It also is possible that new competitors or alliances among current and/or new competitors could emerge to win significant market share. Increased competition could result in price reductions, fewer customer orders, reduced earnings and margins and loss of market share. In turn, this could have a material adverse effect on our business, results of operations, cash flow, and financial condition.

We believe we have established meaningful competitive differentiation through our supply chain expertise; our platform-based solution approach; our track record of continuous supply chain innovation and investment; our strong and endorsing customer relationships; our significant success in deploying and supporting supply chains for market-leading companies; our success in helping our clients address the enterprise impacts of digital commerce; and our ability to out-execute others in identifying sales opportunities and demonstrating expertise throughout the sales cycle. However, to further our market success, we must continue to respond promptly and effectively to technological change and competitors' innovations. Consequently, we cannot assure that we will not be required to make substantial additional investments in research, development, marketing, sales and customer service efforts in order to meet any competitive threat, or that we will be able to compete successfully in the future.

International Operations: Segments

We have three reporting segments, based on geographic location: the Americas; Europe, Middle East and Africa ("EMEA"); and Asia Pacific ("APAC"). For further information on our segments, see Note 7 to our consolidated financial statements. Our international revenue was approximately $131.3 million, $134.6 million, and $110.8 million for the years ended December 31, 2015, 2014, and 2013, respectively, which represents approximately 24%, 27%, and 27% of our total revenue for the years ended December 31, 2015, 2014, and 2013, respectively. International revenue includes all revenue derived from sales to customers outside the United States. We now have approximately 1,550 employees in our International operations.

Proprietary Rights

We rely on a combination of copyright, patent, trade secret, trademark, and trade dress laws, confidentiality procedures, and contractual provisions to protect our proprietary rights in our products, processes and technology. We have registered trademarks for Manhattan Associates and the Manhattan Associates logo, as well as a number of our products and features. Generally we enter into confidentiality and assignment-of-rights agreements with our employees, consultants, customers and potential customers and limit access to, and distribution of, our proprietary information. We license our proprietary products to our customers under license agreements that we believe contain appropriate use and other restrictions in order to try to best protect our ownership of our products and our proprietary rights in them, and to protect our revenue potential from our products. However, despite our efforts to safeguard and maintain our proprietary rights, we cannot ensure that we will successfully deter misappropriation, unintended disclosure or independent third-party development of our technology or our proprietary rights or information. Policing unauthorized use of our products is difficult, and, while we are unable to determine the extent to which piracy of our software solutions exists, as is the case with any software company, piracy could become a problem. Further, to the extent that we enter into transactions in countries where intellectual property laws are not well developed or are poorly enforced, our efforts to protect our proprietary rights may be ineffective. Whether we seek to enforce our proprietary rights in the U.S. or abroad, our efforts, including litigation to enforce our rights, can result in substantial costs and diversion of resources, and such efforts, or our failure to succeed in such efforts, could have a material adverse effect on our business, financial condition, results of operations or cash flows, regardless of the final outcome.

As the number of supply chain management solutions available in the marketplace increases and solution functionality continues to overlap, supply chain software may increasingly become subject to claims of infringement or other misappropriation of intellectual property. Third parties may assert infringement or misappropriation claims against us relating to our products, processes or technology. Such claims, whether or not they have merit, generally are time-consuming and may result in costly litigation, divert management's attention or cause product shipment delays or require us to enter into royalty or licensing arrangements. Defense of infringement or other misappropriation claims, entering into royalty or licensing agreements, the unavailability of such agreements, or adverse determinations in proprietary rights litigation could have a material adverse effect on our business, results of operations, cash flow and financial condition.

Employees

At December 31, 2015, we employed approximately 2,930 employees worldwide, of which 1,380 are based in the Americas, 210 in EMEA, and 1,340 in APAC (including India).

Available Information

We file annual, quarterly and current reports and other information with the Securities and Exchange Commission (the "SEC" or the "Commission"). These materials can be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials may also be obtained by mail at prescribed rates from the SEC's Public Reference Room at the above address. Information about the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

On our website, www.manh.com, we provide free of charge our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments thereto, as soon as reasonably practicable after they have been electronically filed or furnished to the SEC. Information contained on our website is not part of this Form 10-K or our other filings with the SEC.

Additionally, our code of business conduct and ethics and the charters of the Audit, Compensation, and Nomination and Governance Committees of the Board of Directors are available on our website.

Item 1A. Risk Factors

You should consider the following and other risk factors in evaluating our business or an investment in our common stock. The occurrence of adverse events described in the following risk factors or other adverse events not described in the following risk factors could have a material adverse effect on our business, results of operations, cash flow and financial condition, and could cause the trading price of our common stock to decline.

Economic, political and market conditions can adversely affect our business, results of operations, cash flow and financial condition, including our revenue growth and profitability, which in turn could adversely affect our stock price. Our business is influenced by a range of factors that are beyond our control and that we have no comparative advantage in forecasting. These include:

- general economic and business conditions;
- overall demand for enterprise software and services;
- governmental policy, budgetary constraints or shifts in government spending priorities;
- general geo-political developments; and
- currency exchange rate fluctuations.

Macroeconomic developments like the continued slow pace of economic recovery in the United States and Europe and in parts of Asia and South America could negatively affect our business, operating results, financial condition and outlook, which, in turn, could adversely affect our stock price. Any general weakening of, and related declining corporate confidence in, the global economy or the curtailment in government or corporate spending could cause current or potential customers to reduce or eliminate their information technology budgets and spending, which could cause customers to delay, decrease or cancel purchases of our products and services or cause customers not to pay us or to delay paying us for previously purchased products and services.

In addition, political unrest in places like Ukraine, Syria and Iraq and the related potential impact on global stability, terrorist attacks and the potential for other hostilities in various parts of the world, potential public health crises and natural disasters continue to contribute to a climate of economic and political uncertainty that could adversely affect our results of operations and financial condition, including our revenue growth and profitability.

Our inability to attract, integrate, and retain management and other personnel could adversely impact our business, results of operations, cash flow, and financial condition. Our success greatly depends on the continued service of our executives, as well as our other key senior management, technical personnel, and sales personnel. Our success will depend on the ability of our executive officers to work together as a team. The loss of any of our senior management or other key professional services, research and development, sales and marketing personnel—particularly if they are lost to competitors—could impair our ability to grow our business. We do not maintain key man life insurance on any of our executive officers.

Our future success will depend in large part upon our ability to attract, retain, and motivate highly skilled employees. We face significant competition for individuals with the skills required to perform the services we offer, and thus we may encounter increased compensation costs that are not offset by increased revenue. In the broader technology industry in which we compete for talented hires, there is substantial and continuous competition for engineers with high levels of experience in designing, developing and managing software, as well as competition for sales executives and operations personnel. We cannot guarantee that we will be able to attract and retain sufficient numbers of these highly skilled employees or motivate them. Because of the complexity of the supply chain market, we may experience a significant time lag between the date on which technical and sales personnel are hired and the time at which these persons become fully productive.

We may not be able to continue to successfully compete with other companies. We compete in markets that are intensely competitive and are expected to become more competitive as current competitors expand their product offerings. Our current competitors come from many segments of the software industry and offer a variety of solutions directed at various aspects of the extended supply chain, as well as the enterprise as a whole. We face competition for product sales from:

- corporate information technology departments of current or potential customers capable of internally developing solutions;
- ERP vendors, including Oracle, SAP, and Infor, among others;
- supply chain execution vendors, including JDA Software Group, Inc. (JDA), HighJump Software Inc., and the Sterling Commerce division of IBM, among others;
- supply chain planning vendors, including JDA and SAS Institute Inc., among others; and
- smaller independent companies that have developed or are attempting to develop supply chain execution solutions and/or supply chain planning solutions that apply in specific countries and/or globally.

We anticipate facing increased competition from ERP and supply chain management (SCM) applications vendors and business application software vendors that may broaden their solution offerings by internally developing or by acquiring or partnering with independent developers of supply chain planning and execution software. Some of these ERP and other potential competitors have longer operating histories, significantly more financial, technical, marketing, and other resources, greater name recognition, broader solutions, and larger installed bases of customers than do we. To the extent that ERP and SCM vendors or other large competitors develop or acquire systems with functionality comparable or superior to ours, their larger customer bases, long-standing customer relationships, and ability to offer broader solutions outside the scope of supply chain could create significant competitive advantage for them. It also is possible that new competitors or alliances among current and/or new competitors could emerge to win significant market share. Increased competition could result in price reductions, fewer customer orders, reduced earnings and margins, and loss of market share. In turn, this could have a material adverse effect on our business, results of operations, cash flow, and financial condition.

We believe the domain expertise required to continuously innovate supply chain technology in our target markets, effectively and efficiently implement solutions, identify and attract sales opportunities, and compete successfully in the sales cycle provides us with a competitive advantage and is a significant barrier to market entry. However, in order to be successful in the future, we must continue to respond promptly and effectively to technological change and competitors' innovations, and consequently we cannot assure you that we will not be required to make substantial additional investments in connection with our research, development, marketing, sales, and customer service efforts in order to meet any competitive threat, or that we will be able to compete successfully in the future. Some of our competitors have significant resources at their disposal, and the degree to which we will compete with their new innovative products in the marketplace is undetermined.

Our pricing models may need to be modified due to price competition. The competitive markets in which we operate may oblige us to reduce our prices in order to contend with the pricing models of our competitors. If our competitors discount certain products or services, we may have to lower prices on certain products or services in order to attract or retain customers. Any such price modifications would likely reduce margins and could adversely affect our business, results of operations, cash flow, and financial condition.

Our operating results are substantially dependent on one line of business. We continue to derive our revenues from sales of our supply chain commerce solutions software and related services and hardware. Any factor adversely affecting the markets for supply chain solutions could have an adverse effect on our business, results of operations, cash flow, and financial condition. Accordingly, our future operating results will depend on the demand for our supply chain commerce products and related services and hardware by our customers, including new and enhanced releases that we subsequently introduce. We cannot guarantee that the market will continue to demand our current products or we will be successful in marketing any new or enhanced products. If our competitors release new products that are superior to our products in performance or price, demand for our products may decline. A decline in demand for our products as a result of competition, technological change, or other factors would reduce our total revenues and harm our ability to maintain profitability.

Our future revenue is dependent on continuing license sales, which in turn drive sales of post-contract support and professional services. We are dependent on our new customers as well as our large installed customer base to purchase additional software licenses, post-contract support, and professional services from us. Our post-contract support agreements are generally for a one-year term and our professional services agreements generally only cover a particular engagement. In future periods customers may not license additional products, and in turn may not renew post-contract support agreements or purchase additional professional services from us. If our customers decide not to license or purchase these products and services from us, or if they reduce the scope of their post-contract support or hosting or professional services agreements, our revenue could decrease significantly, and that could have a material adverse effect on our business, results of operations, cash flow and financial condition.

In addition, many of our customers are using older versions of our products for which we are no longer developing any further upgrades or enhancements. While we intend to migrate our customers who are using these versions to newer versions or products, there can be no assurance that these customers will do so. If customers using older versions of our products decide not to license our current software products, or decide to discontinue the use of our products and associated post-contract support services, our revenue could decrease and our operating results could be materially adversely affected.

Delays in implementing our products could adversely impact our business, results of operations, cash flow, and financial condition. Due to the size and complexity of most of our software implementations, our implementation cycle can be lengthy and may result in delays. Our products may require modification or customization and must integrate with many existing computer systems and software programs of our customers. This can be time-consuming and expensive for customers and can result in implementation and deployment delays of our products. Additional delays could result if we fail to attract, train, and retain services personnel, or if our alliance companies fail to commit sufficient resources towards implementing our software. These delays and resulting customer dissatisfaction could limit our future sales opportunities, impact revenue, and harm our reputation.

Our ability to license our software is highly dependent on the quality of our services offerings, and our failure to offer high quality services could adversely impact our business, results of operations, cash flow, and financial condition. Most of our customers rely to some extent on our professional services to aid in the implementation of our software solutions. Once our software has been installed and deployed, our customers may depend on us to provide them with ongoing support and resolution of issues relating to our software. Therefore, a high level of service is critical for the continued marketing and sale of our solutions. If we or our partners do not efficiently and effectively install and deploy our software products, or succeed in helping our customers quickly resolve post-deployment issues, our ability to sell software products to these customers would be adversely affected and our reputation in the marketplace with potential customers could suffer.

If our data protection or other security measures are compromised and as a result our data, our customers' data or our IT systems are accessed improperly, made unavailable, or improperly modified, our products and services may be perceived as vulnerable, our brand and reputation could be damaged, the IT services we provide to our customers could be disrupted, and customers may stop using our products and services, all of which could reduce our revenue and earnings, increase our expenses and expose us to legal claims and regulatory actions. Our products and services can store, retrieve, manipulate and manage our customers' information and data as well as our own. We have a reputation for secure and reliable software products and services and invest time and resources in protecting the integrity and security of our products, services and internal and external data that we manage.

Nevertheless, we encounter attempts by third parties to penetrate or bypass our data protection and other security measures and gain unauthorized access to our networks, systems and data or compromise the confidential information or data of our customers. Data may also be accessed or modified improperly as a result of employee or supplier error or malfeasance and third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information.

These risks are persistent and likely will increase as we continue to grow our cloud offerings and services and store and process increasingly large amounts of our customers' confidential information and data. We also may acquire companies, products, services and technologies and inherit such risks when we integrate these acquisitions within Manhattan.

If a cyber-attack or other security incident described above were to occur, we could suffer damage to our brand and reputation, which could reduce our revenue and earnings, increase our expenses to address and fix the incidents as well as expose us to legal claims and regulatory actions.

Further, as regulatory focus on privacy issues continues to increase and become more complex, these potential risks to our business will intensify. Changes in laws or regulations associated with the enhanced protection of certain types of sensitive data could greatly increase our cost of providing our products and services.

Our international operations have many associated risks. We continue to strategically manage our presence in international markets, and these efforts require significant management attention and financial resources. We may not be able to successfully penetrate international markets, or, if we do, there can be no assurance that we will grow our business in these markets at the same rate as in North America. Because of these inherent complexities and challenges, lack of success in international markets could adversely affect our business, results of operations, cash flow, and financial condition.

We have international offices in Europe: the United Kingdom, the Netherlands, and France; and in Asia: China, Japan, Singapore, and India; and Australia. We have committed resources to maintaining and further expanding, where appropriate, our sales offices and sales and support channels in key international markets. However, our efforts may not be successful. International sales are subject to many risks and difficulties, including those arising from the following: building and maintaining a competitive presence in new markets; staffing and managing foreign operations; managing international systems integrators; complying with a variety of foreign laws; producing localized versions of our products; import and export restrictions and tariffs; enforcing contracts and collecting accounts receivable; unexpected changes in regulatory requirements; reduced protection for intellectual property rights in some countries; potential adverse tax treatment; less stringent adherence to ethical and legal standards by prospective customers in some countries; language and cultural barriers; currency fluctuations; political and economic instability abroad; and seasonal fluctuations.

Our operating results may include foreign currency gains and losses. Due to our international operations, we conduct a portion of our business in currencies other than the United States dollar. Our revenues, expenses, operating profit and net income are affected when the dollar weakens or strengthens in relation to other currencies. In addition, we have a large development center in Bangalore, India, that does not have a natural in-market revenue hedge to mitigate currency risk to our operating expense in India. Fluctuations in the value of other currencies, particularly the Indian rupee, could materially impact our revenues, expenses, operating profit and net income.

Our research and development activities may not generate significant returns. Our product development activities are costly, and recovering our investment in product development may take a significant amount of time, if it occurs at all. We anticipate continuing to make significant investments in software research and development and related product opportunities because we believe that we must continue to allocate a significant amount of resources to our research and development activities in order to compete successfully. We cannot estimate with any certainty when we will, if ever, receive significant revenues from these investments.

Our liability to clients may be substantial if our systems fail, which could adversely impact our business, results of operations, cash flow, and financial condition. Our products are often critical to the operations of our customers' businesses and provide benefits that may be difficult to quantify. If our products fail to function as required, we may be subject to claims for substantial damages. Courts may not enforce provisions in our contracts that would limit our liability or otherwise protect us from liability for damages. Defending a lawsuit, regardless of its merit, could be costly and divert management's time and attention. Although we maintain general liability insurance and error and omissions coverage, these coverages may not continue to be available on reasonable terms or in sufficient amounts to cover claims against us. In addition, our insurer may disclaim coverage as to any future claim. If claims exceeding the available insurance coverage are successfully asserted against us, or our insurer imposes premium increases or large deductibles or co-insurance requirements on us, then our business, results of operations, cash flow, and financial condition could be adversely affected.

Our software may contain undetected errors or "bugs" resulting in harm to our reputation which could adversely impact our business, results of operations, cash flow, and financial condition. Software products as complex as those offered by us might contain undetected errors or failures when first introduced or when new versions are released. Despite testing, we cannot ensure that errors will not be found in new products or product enhancements after commercial release. Any errors could cause substantial harm to our reputation, result in additional unplanned expenses to remedy any defects, delay the introduction of new products, result in the loss of existing or potential customers, or cause a loss in revenue. Further, such errors could subject us to claims from our customers for significant damages, and we cannot assure you that courts would enforce the provisions in our customer agreements that limit our liability for damages. In turn, our business, results of operations, cash flow, and financial condition could be materially adversely affected.

We may encounter long sales cycles, particularly with our larger customers, which could have an adverse effect on the amount, timing, and predictability of our revenue, adversely affecting our business, results of operations, cash flow, and financial condition. Our products have lengthy sales cycles, which typically extend from nine to twelve months and may take up to several years. Potential and existing customers, particularly larger enterprise customers, often commit significant resources to an evaluation of available solutions and services and require us to expend substantial time and resources in connection with our sales efforts. The length of our sales cycles also varies depending on the type of customer to which we are selling, the product being sold, and customer requirements. We may incur substantial sales and marketing expenses and expend significant management effort during this time, regardless of whether we make a sale. Many of the key risks relating to sales processes are beyond our control, including: our customers' budgetary and scheduling constraints; the timing of our customers' budget cycles and approval processes; our customers' willingness to replace their currently deployed software solutions; and general economic conditions.

As a result of these lengthy and uncertain sales cycles of our products and services, it is difficult for us to predict when customers may purchase products or services from us, thereby affecting when we can recognize the associated revenue, and our operating results may vary significantly and may be adversely affected. The length of our sales cycle makes us susceptible to having pending transactions delayed or terminated by our customers if they decide to delay or withdraw funding for IT projects. Our customers may decide to delay or withdraw funding for IT projects for various reasons, including, but not limited to, global economic cycles and capital market fluctuations.

Our operating results are difficult to predict and could cause our stock price to fall. Our quarterly revenue and operating results are difficult to predict and can fluctuate significantly from quarter to quarter. If our quarterly revenue or operating results fall below the expectations of investors or public market analysts, the price of our common stock could fall substantially. Our quarterly revenue is difficult to forecast for several reasons, including the following: global macro-economic disruptions; credit and equity market disruptions, which can significantly impact capital availability and spend timing of customers or potential customers; the varying sales cycle for our products and services from customer to customer, including multiple levels of authorization required by some customers; the varying demand for our products; customers' budgeting and purchasing cycles; potential deferral of license revenue well after entering into a license agreement due to extended payment terms, including, although infrequent, payment terms in a contract extending beyond twelve months, significant software modifications, future software functionality deliverables not on a stand-alone basis, or other negotiated terms that preclude software revenue recognition under U.S. general accepted accounting principles; delays in our implementations at customer sites; timing of hiring new services employees and the rate at which these employees become productive; timing of introduction of new products; development and performance of our distribution channels; and timing of any acquisitions and related costs.

As a result of these and other factors, our license revenue is difficult to predict. Because our revenue from services is largely correlated to our license revenue, a decline in license revenue could also cause a decline in our services revenue in the same quarter or in subsequent quarters. In addition, an increase or decrease in hardware sales, which provide us with lower gross margins than sales of software licenses or services, may cause variations in our quarterly operating results.

Most of our expenses, including employee compensation and rent, are relatively fixed. In addition, our expense levels are based, in part, on our expectations regarding future revenue increases. As a result, any shortfall in revenue in relation to our expectations could cause significant changes in our operating results from quarter to quarter and could result in quarterly losses. As a result of these factors, we believe that period-to-period comparisons of our revenue levels and operating results are not necessarily meaningful. Historical growth rates and historical quarterly revenue and operating results may not be a good indicator of future operating results and reliance on historical results should not be used to predict our future performance.

Our technology must be advanced if we are to remain competitive. The market for our products is characterized by rapid technological change, frequent new product introductions and enhancements, changes in customer demands, and evolving industry standards. Our existing products could be rendered obsolete if we fail to continue to advance our technology. We have also found that the technological life cycles of our products are difficult to estimate, partially because of changing demands of other participants in the supply chain. We believe that our future success will depend in large part upon our ability to continue to enhance our current product line while we concurrently develop and introduce new products that keep pace with competitive and technological developments. These developments require us to continue to make substantial product development investments. Although we are presently developing a number of product enhancements to our product sets, we cannot assure you that these enhancements will be completed on a timely basis or gain customer acceptance.

Our failure to manage the growth of our operations may adversely affect our business, results of operations, cash flow, and financial condition. We plan to continue to increase the scope of our operations domestically and internationally. This growth may place a significant strain on our management systems and resources. We may further expand domestically or internationally through internal growth or through acquisitions of related companies and technologies. If we fail to maintain continuity in our executive officers; develop the management skills of our managers and supervisors; attract, retain, train, and motivate our employees; improve our operational, financial, and management controls; and maintain adequate reporting systems and procedures and our management and information control systems, our business, results of operations, and cash flow could be negatively impacted.

We incorporate third-party software in our solutions, the failure or unavailability of which could adversely affect our ability to sell, support, and service our products. We incorporate and include third-party software into and with certain of our products and solutions and expect to continue to do so. The operation of our products could be impaired if there are defects in that third-party software. It may be difficult for us to correct any defects in third-party software because the development and maintenance of the software is not within our control. Such defects could adversely affect our business.

In addition, there can be no assurance that these third parties will continue to make their software available to us on acceptable terms, or at all; not make their products available to our competitors on more favorable terms; invest the appropriate levels of resources in their products and services to maintain and enhance the capabilities of their software; or remain in business. Any impairment in our relationship with these third parties or our ability to license or otherwise use their software could have a material adverse effect on our business, results of operations, cash flow, and financial condition.

The use of open source software in our products may expose us to additional risks and harm our intellectual property, which could adversely impact our business, results of operations, cash flow, and financial condition. Some of our products use or incorporate software that is subject to one or more open source licenses. Open source software is typically freely accessible, usable and modifiable. Certain open source software licenses require a user who intends to distribute the open source software as a component of the user's software to disclose publicly part or all of the source code to the user's software. In addition, certain open source software licenses require the user of such software to make any derivative works of the open source code available to others on unfavorable terms or at no cost. This can subject previously proprietary software to open source license terms.

While we monitor the use of all open source software in our products, processes, and technology and try to ensure that no open source software is used in such a way as to require us to disclose the source code to the related product or solution, such use could inadvertently occur. Additionally, if a third-party software provider has incorporated open source software into software we license from them for use in our products and solutions, we could, under certain circumstances, be required to disclose the source code to our products and solutions. This could harm our intellectual property position and have a material adverse effect on our business, results of operations, cash flow, and financial condition.

If we are unable to develop software applications that interoperate with computing platforms developed by others, our business, results of operations, cash flow, and financial condition may be adversely affected. We develop software applications that interoperate with operating systems, database platforms, and hardware devices developed by others, which we refer to collectively as computing platforms. If the developers of these computing platforms do not cooperate with us or we are unable to devote the necessary resources so that our applications interoperate with those computing platforms, our software development efforts may be delayed and our business and results of operations may be adversely affected. When new or updated versions of these computing platforms are introduced, it is often necessary for us to develop updated versions of our software applications so that they interoperate properly with these computing platforms. We may not accomplish these development efforts quickly or cost-effectively, and it is difficult to predict what the relative growth rates of adoption of these computing platforms will be. These development efforts require substantial investment, the devotion of substantial employee resources, and the cooperation of the developers of the computing platforms. For some computing platforms, we must obtain some proprietary application program interfaces from the owner in order to develop software applications that interoperate with the computing platforms. Computing platform providers have no obligation to assist in these development efforts. If they do not provide us with assistance or the necessary proprietary application program interfaces on a timely basis, we may experience delays or be unable to expand our software applications into other areas.

The computing platforms we use may not continue to be available to us on commercially reasonable terms. Any loss of the right to use any of these systems could result in delays in the provision of our products and services, and our results of operations may be adversely affected. Defects in computing platforms could result in errors or failure of our products, which could harm our business.

Our liability for intellectual property claims can be costly and result in the loss of significant rights, which could adversely impact our business, results of operations, cash flow, and financial condition. It is possible that third parties will claim that we have infringed their current or future products, inventions, or other intellectual property. We expect that supply chain software developers like us will increasingly be subject to infringement claims as the number of products grows. Any claims, with or without merit, could be time-consuming, result in costly litigation, cause product shipment delays, or require us to pay monetary damages or to enter into royalty or licensing agreements, any of which could negatively impact our operating results. There are no assurances that these royalty or licensing agreements, if required, would be available on terms acceptable to us, if at all. We also may be required to indemnify our customers for damages they suffer as a result of such infringement. There are no assurances that legal action claiming patent infringement will not be commenced against us, or that we would prevail in litigation given the complex technical issues and inherent uncertainties in patent litigation. If a patent claim against us were successful and we could not obtain a license on acceptable terms or license a substitute technology or redesign the product or feature to avoid infringement, we may be prevented from distributing our software or required to incur significant expense and delay in developing non-infringing software. Any of these events could seriously harm our business, results of operations, cash flow, and financial condition.

We may have exposure to additional tax liabilities. As a multinational corporation, we are subject to income taxes in the U.S. and various foreign jurisdictions. Significant judgment is required in determining our global provision for income taxes and other tax liabilities. In the ordinary course of a global business, there are many intercompany transactions and calculations where the ultimate tax determination is uncertain. Our income tax returns are routinely subject to audits by tax authorities. Although we regularly assess the likelihood of adverse outcomes resulting from these examinations to determine our tax estimates, a final determination of tax audits or tax disputes could have an adverse effect on our financial condition, results of operations and cash flows. Also, the earnings of our foreign subsidiaries are considered to be indefinitely reinvested. If our plans change in the future or if we elect to repatriate the unremitted earnings of our foreign subsidiaries in the form of dividends or otherwise, we would be subject to additional income taxes which would result in a higher effective tax rate.

In addition, our future effective tax rates could be favorably or unfavorably affected by changes in tax rates, changes in the valuation of our deferred tax assets or liabilities, or changes in tax laws or their interpretation. Such changes could have a material adverse impact on our financial results.

We are also subject to non-income taxes, such as payroll, sales, use, value-added, net worth, property and goods and services taxes in the U.S. and various foreign jurisdictions. We are regularly under audit by tax authorities with respect to these non-income taxes and may have exposure to additional non-income tax liabilities, which could have an adverse effect on our results of operations, financial condition and cash flows.

Fluctuations in our hardware sales may adversely impact our business, results of operations, cash flow, and financial condition. A portion of our revenue in any period is from the resale of a variety of third-party hardware products to purchasers of our software. However, our customers may purchase these hardware products directly from manufacturers or distributors rather than from us. We view sales of hardware as non-strategic. We perform this service to our customers seeking a single source for their supply chain needs. Hardware sales are difficult to forecast and fluctuate from quarter to quarter, leading to unusual comparisons of total revenue and fluctuations in profits. If we are unable to maintain or grow our hardware revenue, our business, results of operations, cash flow, and financial condition may be adversely affected.

Our growth is dependent upon the successful development of our direct and indirect sales channel mix. We believe that our future growth also will depend on further developing and maintaining a successful direct sales force and strategic relationships with systems integrators and other technology companies. We invest significant resources to maintain and develop our sales channels. Our investment could adversely affect our operating results if these efforts do not generate license and service revenue necessary to offset the investment. Also, our inability to partner with other technology companies and qualified systems integrators could adversely affect our results of operations. Because lower unit prices are typically charged on sales made through indirect channels, a disproportionate increase in indirect sales could reduce our average selling prices and result in lower gross margins. In addition, sales of our products through indirect channels typically do not generate consulting services revenue for us at the same levels as direct sales, as the third-party systems integrators generally provide these services. Similarly, indirect sales typically do not generate the same levels of direct contact between our associates and those of our customer, and we may have more difficulty accurately forecasting sales, evaluating customer satisfaction, and recognizing emerging customer requirements. In addition, these systems integrators and third-party software providers may develop, acquire, or market products competitive with our products.

Our strategy of marketing our products directly to customers and indirectly through systems integrators and other technology companies may result in distribution channel conflicts. Our direct sales efforts may compete with those of our indirect channels and, to the extent different systems integrators target the same customers, systems integrators may also come into conflict with each other. Any channel conflicts that develop may have a material adverse effect on our relationships with systems integrators or harm our ability to attract new systems integrators.

Our employee retention and hiring may be hindered by immigration restrictions, which could adversely impact our business, results of operations, cash flow, and financial condition. Foreign nationals who are not U.S. citizens or permanent residents constitute a significant part of our professional U.S. workforce. Our ability to hire and retain these workers, and their ability to remain and work in the U.S. are impacted by laws and regulations as well as by processing procedures of various government agencies. Changes in laws, regulations, or procedures may adversely affect our ability to hire or retain such workers and may affect our costs of doing business and/or our ability to deliver services.

Our failure to adequately protect our proprietary rights could adversely impact our business, results of operations, cash flow, and financial condition. Our success and ability to compete is dependent in part upon our proprietary technology. There are no assurances that we will be able to protect our proprietary rights against unauthorized disclosure or third-party copying or use. We rely on a combination of copyright, patent, trademark, and trade secret laws, as well as confidentiality agreements, licensing arrangements, and contractual commitments, to establish and protect our proprietary rights. Despite our efforts to protect our proprietary rights, existing copyright, patent, trademark, and trade secret laws afford only limited protection. In addition, the laws of certain foreign countries do not protect our rights to the same extent as do the laws of the United States. Attempts may be made to copy or reverse engineer aspects of our products or to obtain and use information that we regard as proprietary. Any infringement of our proprietary rights could negatively impact our future operating results. Furthermore, policing the unauthorized use of our products is difficult, and litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets, or to determine the validity and scope of the proprietary rights of others. Litigation could result in substantial costs and diversion of resources. In turn, our business, results of operations, cash flow, and financial condition could be materially adversely affected.

Mergers or other strategic transactions involving our competitors could weaken our competitive position or reduce our revenue. Our competitors have been consolidating, which may make them more formidable competitors to us. Competing with stronger companies may cause us to experience pricing pressure and loss of market share, either of which could have a material adverse effect on our business, results of operations, cash flow, and financial condition. Our competitors may establish or strengthen their cooperative relationships with vendors, systems integrators, third-party consulting firms, or other parties. Established companies may not only develop their own products but may also acquire or partner with our current competitors. If any of these events occur, our revenue and profitability could significantly decline.

Our business, results of operations, cash flow, and financial condition may be adversely affected if we cannot integrate acquired companies or manage joint ventures. We may from time to time acquire companies with complementary products and services. These acquisitions will expose us to increased risks and costs, including those arising from the following: assimilating new operations and personnel; diverting financial and management resources from existing operations; and integrating acquired technologies. We may not be able to generate sufficient revenue from any of these acquisitions to offset the associated acquisition costs.

We will also be required to maintain uniform standards of quality and service, controls, procedures, and policies. Our failure to achieve any of these standards may hurt relationships with customers, employees, and new management personnel. In addition, future acquisitions may result in additional issuances of stock that could be dilutive to our shareholders.

Many acquisition candidates have significant intangible assets, and an acquisition of these businesses would likely result in significant amounts of goodwill and other intangible assets. Goodwill and certain other intangible assets are not amortized to income, but are subject to at least annual impairment reviews. If the acquisitions do not perform as planned, future charges to income arising from such impairment reviews could be significant. Likewise, future quarterly and annual earnings could be significantly adversely affected. In addition, these acquisitions could involve acquisition-related charges, such as one-time acquired research and development charges.

We may also evaluate joint venture relationships with complementary businesses. Any joint venture we enter into would involve many of the same risks posed by acquisitions, particularly the following: risks associated with the diversion of resources; the inability to generate sufficient revenue; the management of relationships with third parties; and potential additional expenses.

Our business may require additional capital. We may require additional capital to finance our growth or to fund acquisitions or investments in complementary businesses, technologies or product lines. Our capital requirements may be impacted by many factors, including: demand for our products; the timing of and extent to which we invest in new technology; the timing of and extent to which we acquire other companies; the level and timing of revenue; the expenses of sales and marketing and new product development; the success and related expense of increasing our brand awareness; the cost of facilities to accommodate a growing workforce; the extent to which competitors are successful in developing new products and increasing their market share; and the costs involved in maintaining and enforcing intellectual property rights.

To the extent that our resources are insufficient to fund our future activities, we may need to raise additional funds through public or private financing. However, additional funding, if needed, may not be available on terms attractive to us, or at all. In addition, since we have historically financed our growth through cash flow from operations and available cash, our relative inexperience in accessing the credit or capital markets may impair our ability to do so if the need arises. Our inability to raise capital when needed could have a material adverse effect on our business, results of operations, cash flow and financial condition. If additional funds are raised through the issuance of equity securities, the percentage ownership of our company held by our current shareholders would be diluted.

Fires or other catastrophic events at our principal facilities could cripple our business. Fires, natural disasters or other catastrophic events, particularly those effecting our Atlanta headquarters or India research and development center, may cause damage or disruption to our operations, and thus could have a strong negative effect on us. Our business operations are subject to interruption by natural disasters, fire, power shortages, pandemics and other events beyond our control. Although we maintain crisis management and disaster response plans, such events could make it difficult or impossible for us to deliver our services to our customers.

Our ability to maintain and develop our brand is critical for our continued success. The brand identity we have developed has significantly contributed to the continued success of our business. Our ability to maintain and develop our brand is critical in expanding our base of customers, partners and employees. Our brand will depend largely on our ability to remain a technology leader and continue to provide high-quality innovative products, services, and features. Significant investments may be required in order to maintain and develop our brand. However, the investments may later be proven to be unsuccessful. If we fail to maintain and develop our brand, or if we incur excessive expenses in our efforts to do so, our business, operating results and financial condition may be materially and adversely affected.

Adverse litigation results could affect our business. From time to time, we may be involved in litigation relating to claims arising out of our ordinary course of business, and occasionally legal proceeding not in the ordinary course. Litigation can be lengthy, expensive and disruptive to our operations, and can divert our management’s attention away from running our core business. The results of any litigation also cannot be predicted with certainty. An adverse decision could result in monetary damages or injunctive relief that could affect our business, operating results or financial condition. Additional information regarding legal matters in which we are involved can be found in Note 5 of the Notes to our Consolidated Financial Statements.

Our stock price has been highly volatile. The trading price of our common stock has fluctuated significantly since our initial public offering in April 1998. In addition, the trading price of our common stock could be subject to wide fluctuations in response to various factors, including: global macro-economic contraction impacting demand for supply chain solutions; quarterly variations in operating results; announcements of technological innovations or new products by us or our competitors; developments with respect to patents or proprietary rights; changes in financial estimates by securities analysts; and mergers, acquisitions, and combinations involving our competitors or us.

During 2015, we repurchased approximately $101.6 million of Manhattan Associates’ outstanding common stock under the share repurchase program approved by our Board of Directors throughout the year. In January 2016, our Board of Directors approved raising our remaining share repurchase authority to $50.0 million of Manhattan Associates outstanding common stock.

In addition, the stock market has recently experienced volatility that has particularly affected the market prices of equity securities of many technology companies. The volatility often has been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations may adversely affect the market price of our common stock.

Our articles of incorporation and bylaws and Georgia law may inhibit a takeover of our company. Our basic corporate documents and Georgia law contain provisions that might enable our management to resist a takeover of our company. These provisions might discourage, delay, or prevent a change in the control of our company or a change in our management. These provisions could also discourage proxy contests and make it more difficult for you and other shareholders to elect directors and take other corporate actions. The existence of these provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock.

Item 1B. Unresolved Staff Comments

As of December 31, 2015, we do not have any unresolved SEC staff comments.

Item 2. Properties

Our principal administrative, sales, marketing, support, and research and development facility is located in approximately 221,000 square feet of modern office space in Atlanta, Georgia. Substantially all of this space is leased to us through September 30, 2025. We have additional offices under multi-year agreements in Indiana and New Jersey. We also occupy facilities outside of the United States under multi-year agreements in the United Kingdom, the Netherlands, France, China, Japan, Singapore, India, and Australia. We also occupy offices under short-term agreements in other geographical regions. We believe our office space is adequate to meet our immediate needs; however, we may expand into additional facilities in the future.

Item 3. Legal Proceedings

From time to time, we may be a party to legal proceedings arising in the ordinary course of business, and we could be a party to legal proceedings not in the ordinary course of business. The Company is not currently a party to any legal proceeding the result of which it believes could have a material adverse impact upon its business, financial position, results of operations, or cash flows.

Many of our installations involve products that are critical to the operations of our clients' businesses. Any failure in our products could result in a claim for substantial damages against us, regardless of our responsibility for such failure. Although we attempt to contractually limit our liability for damages arising from product failures or negligent acts or omissions, there can be no assurance that the limitations of liability set forth in our contracts will be enforceable in all instances.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market for Common Stock

On December 19, 2013, the Board of Directors of the Company approved a four-for-one stock split of the Company's common stock, effected in the form of a stock dividend. Each shareholder of record at the close of business on December 31, 2013 received three additional shares for every outstanding share held on the record date. The additional shares were distributed on January 10, 2014 and trading began on a split-adjusted basis on January 13, 2014. All references made to share or per share amounts have been restated to reflect the effect of this four-for-one stock split for all periods presented.

Our common stock is traded on the Nasdaq Global Select Market under the symbol "MANH". The following table sets forth the high and low closing sales prices of the common stock as reported by the Nasdaq Global Select Market for the periods indicated:

Fiscal Period	High Price	Low Price
2015		
First Quarter	$55.11	$38.53
Second Quarter	61.23	50.80
Third Quarter	68.19	56.96
Fourth Quarter	76.96	62.68
2014		
First Quarter	$40.49	$29.40
Second Quarter	36.22	29.68
Third Quarter	35.36	28.55
Fourth Quarter	42.38	31.84

On January 29, 2016, the last reported sales price of our common stock on the Nasdaq Global Select Market was $57.65 per share. The number of shareholders of record of our common stock as of January 31, 2016 was approximately 14.

We do not intend to declare or pay cash dividends in the foreseeable future. Our management anticipates that all earnings and other cash resources, if any, will be retained for investment in our business.

Equity Compensation Plan Information

The following table provides information regarding our current equity compensation plans as of December 31, 2015:

Plan Category	Number of securities to	Weighted-average exercise price of outstanding options and rights	Number of securities remaining available for future issuance under equity compensation plans

	be issued upon exercise of outstanding options and rights		
Equity compensation plans approved by security holders	1,209,143	$5.06	11,923,068
Equity compensation plans not approved by security holders	-	-	-
Total	1,209,143	$5.06	11,923,068

Additional information regarding our equity compensation plans can be found in Note 2 of the Notes to our Consolidated Financial Statements.

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Purchase of Equity Securities

The following table provides information regarding our common stock repurchases under our publicly-announced share repurchase program and shares withheld for taxes due upon vesting of restricted stock for the quarter ended December 31, 2015. All repurchases related to the share repurchase program were made on the open market.

Period	Total Number of Shares Purchased (a)	Average Price Paid per Share (b)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
October 1 - October 31, 2015	28,850	$73.03	28,497	$47,915,183
November 1 - November 30, 2015	179,494	73.35	179,494	34,749,862
December 1 - December 31, 2015	132,091	74.40	132,091	24,921,883
Total	340,435		340,082	

(a) Includes 353 shares withheld for taxes due upon vesting of restricted stock during October. No restricted stock awards vested in November and December. These amounts do not include shares withheld for taxes due upon vesting of restricted stock units.

(b) The average price paid per share for shares withheld for taxes due upon vesting of restricted stock was $62.68. No restricted stock awards vested in November and December.

During the year ended December 31, 2015, we repurchased a total of 1,721,457 shares at an average price per share of $59.02 under our publicly-announced share repurchase program. In January 2016, our Board of Directors approved raising our remaining share repurchase authority to $50 million worth of Manhattan Associates outstanding common stock.

Item 6. Selected Financial Data

You should read the following selected consolidated financial data in conjunction with our Consolidated Financial Statements and related Notes thereto and with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this Form 10-K. The statement of income data for the years ended December 31, 2015, 2014 and 2013, and the balance sheet data as of December 31, 2015 and 2014, are derived from, and are qualified by reference to, the audited financial statements included elsewhere in this Form 10-K. The statement of income data for the years ended December 31, 2012 and 2011 and the balance sheet data as of December 31, 2013, 2012, and 2011 are derived from audited financial statements not included herein. Historical results are not necessarily indicative of results to be expected in the future.

	Year Ended December 31,				
	2011	2012	2013	2014	2015
	(in thousands, except per share data)				

Statement of Income Data:					
Software license	$54,241	$61,494	$62,416	$71,583	$78,615
Total revenue	$329,253	$376,248	$414,518	$492,104	$556,371
Operating income	$61,363	$80,073	$101,287	$127,124	$161,446
Net income	$44,907	$51,853	$67,296	$82,000	$103,475
Earnings per diluted share	$0.52	$0.64	$0.86	$1.08	$1.40

	December 31,				
	2011	2012	2013	2014	2015
	(in thousands)				
Balance Sheet Data:					
Cash, cash equivalents and investments	$99,114	$103,047	$132,956	$124,438	$128,760
Total assets	$259,600	$261,813	$297,828	$318,170	$337,913
Debt	$-	$-	$-	$-	$-
Shareholders' equity	$162,080	$161,509	$181,586	$182,023	$195,493

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

All statements, trend analyses, and other information contained in the following discussion relative to markets for our products and trends in revenue, gross margins, and anticipated expense levels, as well as other statements including words such as "anticipate," "believe," "plan," "estimate," "expect," and "intend" and other similar expressions constitute forward-looking statements. These forward-looking statements are subject to business and economic risks and uncertainties, including those discussed under the caption "Risk Factors" in Item 1A of this Form 10-K, and our actual results of operations may differ materially from those contained in the forward-looking statements.

Business Overview

We develop, sell, deploy, service and maintain software solutions designed to manage supply chains, inventory and omni-channel operations for retailers, wholesalers, manufacturers, logistics providers and other organizations. Our customers include many of the world's most premier and profitable brands.

Our business model is singularly focused on the development and implementation of complex commerce enablement software solutions that are designed to optimize supply chains, and retail store operations including point of sale effectiveness and efficiency for our customers. We have three principal sources of revenue:

- licenses of our software;
- professional services, including solutions planning and implementation, related consulting, customer training, and customer support services and software enhancements (collectively, "services"); and
- hardware sales and other revenue.

In 2015, we generated $556.4 million in total revenue, with a revenue mix of: license revenue 14%; services revenue 77%; and hardware and other revenue 9%.

The Company has three geographic reportable segments: the Americas, EMEA, and APAC. Geographic revenue is based on the location of the sale. Our international revenue was approximately $131.3 million, $134.6 million and $110.8 million for the years ended December 31, 2015, 2014 and 2013, respectively, which represents approximately 24%, 27% and 27% of our total revenue for the years ended December 31, 2015, 2014 and 2013, respectively. International revenue includes all revenue derived from sales to customers outside the United States. At December 31, 2015, we employed approximately 2,930 employees worldwide, of which 1,380 employees are based in the Americas, 210 employees in EMEA, and 1,340 employees in APAC (including India). We have offices in Australia, China, France, India, Japan, the Netherlands, Singapore, and the United Kingdom, as well as representatives in Mexico and reseller partnerships in Latin America, Eastern Europe, the Middle East, South Africa, and Asia.

Global Economic Trends and Industry Factors

Global macro-economic trends, technology spending, and supply chain management market growth are important barometers for our business. In 2015, approximately 76% of our total revenue was generated in the United States, 13% in EMEA, and the remaining balance in APAC, Canada, and Latin America. In addition, Gartner Inc., an information technology research and advisory company, estimates that nearly 80% of every supply chain software solutions dollar invested is spent in North America (52%) and Western Europe (24%); consequently, the health of the U.S. and the Western European economies has a meaningful impact on our financial results.

We sell technology-based solutions with total pricing, including software and services, in many cases exceeding $1.0 million. Our software often is a part of our customers' and prospects' much larger capital commitment associated with facilities expansion and business improvement. We believe that, given the lingering uncertainty in the global macro environment, the current sales cycles for large license sales of $1.0 million or greater in our target markets have been extended. The current business climate within the United States and geographic regions in which we operate continues to affect customers' and prospects' decisions regarding timing of strategic capital expenditures. Delays with respect to such decisions can have a material adverse impact on our business, and may further intensify competition in our already highly competitive markets.

In January 2016, the International Monetary Fund (IMF) provided a World Economic Outlook (WEO) update lowering its previous 2016 world economic growth forecast to about 3.4 percent, downward revision of 0.2 percent relative to the October 2015 WEO. The WEO update noted "in advanced economies, a modest and uneven recovery is expected to continue, with a gradual further narrowing of output gaps. The picture for emerging market and developing economies is diverse but in many cases challenging. The slowdown and rebalancing of the Chinese economy, lower commodity prices, and strains in some large emerging market economies will continue to weigh on growth prospects in 2016–17."

The WEO update projected that advanced economies, which represent our primary revenue markets, would grow at about 2.1 percent in both 2016 and 2017, while the emerging and developing economies would grow at about 4.3 percent in 2016 and 4.7 percent in 2017.

During the past three years, the overall trend has been steady for our large license sales, with recognized license revenue of $1.0 million or greater on twenty one, fifteen and fourteen new contracts for 2015, 2014 and 2013, respectively. However, the large deal flow has been inconsistent from quarter to quarter, reflecting what we believe to be ongoing macroeconomic uncertainty in the United States and Western Europe. While we are encouraged by our 2015 and 2014 results, we, along with many of our customers, still remain cautious regarding the pace of global economic recovery. With global GDP growth continuing to be below pre-2008 levels, we believe global economic volatility likely will continue to shape customers' and prospects' enterprise software buying decisions, making it difficult to forecast sales cycles for our products and the timing of large enterprise software license sales.

Revenue

License revenue: License revenue, a leading indicator of our business, is primarily derived from software license fees customers pay for supply chain solutions. In 2015, license revenue totaled $78.6 million, or 14% of total revenue, with gross margins of 87.4%. For the year ended December 31, 2015, Americas, EMEA, and APAC recognized $65.3 million, $9.6 million, and $3.7 million in license revenue, respectively. For the year ended December 31, 2015, the percentage mix of new to existing customers was approximately 40/60.

License revenue growth is influenced by the strength of general economic and business conditions and the competitive position of our software products. Our license revenue generally has long sales cycles. In addition, the timing of the closing of a few large license transactions can have a material impact on our license revenues, operating profit, operating margins and earnings per share. For example, $1.2 million of license revenue in 2015 equates to approximately one cent of diluted earnings per share impact.

Our software solutions are singularly focused on core supply chain operations (Warehouse Management, Transportation Management, Labor Management), Inventory optimization and Omni-channel operations (e-commerce, retail store operations and point of sale), which are intensely competitive markets characterized by rapid technological change. We are a market leader in the supply chain management software solutions market as defined by industry analysts such as ARC Advisory Group and Gartner. Our goal is to extend our position as a leading global supply chain solutions provider by growing our license revenues faster than our competitors through investment in innovation. We expect to continue to face increased competition from Enterprise Resource Planning (ERP) and Supply Chain Management applications vendors and business application software vendors that may broaden their solution offerings by internally developing, or by acquiring or partnering with independent developers of supply chain planning and execution software. Increased competition could result in price reductions, fewer customer orders, reduced gross margins, and loss of market share.

Services revenue: Our services business consists of professional services (consulting and customer training) and customer support services and software enhancements ("CSSE"). In 2015, our services revenue totaled $428.1 million, or 77% of total revenue, with gross margins of 56.9%. The Americas, EMEA, and APAC recognized $352.7 million, $58.0 million, and $17.4 million, respectively, in services revenue for the year ended December 31, 2015. Professional services totaled $304.6 million in 2015, accounted for approximately 71% of total services revenue and approximately 55% of total revenue. Our consolidated operating margin profile may be lower than those of various other technology companies due to our large services revenue mix as a percentage of total revenue. While we believe our services margins are very strong, they do lower our overall operating margin profile as services margins are inherently lower than license revenue margins.

At December 31, 2015, our professional services organization totaled approximately 1,920 employees, accounting for 66% of our total employees worldwide. Our professional services organization provides our customers with expertise and assistance in planning and implementing our solutions. To ensure a successful product implementation, consultants assist customers with the initial installation of a system, the conversion and transfer of the customer's historical data onto our system, and ongoing training, education, and system upgrades. We believe our professional services enable customers to implement our software rapidly, ensure the customer's success with our solution, strengthen our customer relationships, and add to our industry-specific knowledge base for use in future implementations and product innovations.

Although our professional services are optional, the majority of our customers use at least some portion of these services for their planning, implementation, or related needs. Professional services are typically rendered under time and materials-based contracts with services typically billed on an hourly basis. Professional services are sometimes rendered under fixed-fee based contracts with payments due on specific dates or milestones.

Services revenue growth is contingent upon license revenue and customer upgrade cycles, which is influenced by the strength of general economic and business conditions and the competitive position of our software products. In addition, our professional services business has competitive exposure to offshore providers and other consulting companies. All of these factors potentially create the risk of pricing pressure, fewer customer orders, reduced gross margins, and loss of market share.

For CSSE, we offer a comprehensive 24 hours per day, 365 days per year program that provides our customers with software upgrades, when and if available, which include additional or improved functionality and technological advances incorporating emerging supply chain and industry initiatives. Our CSSE revenues totaled $123.5 million in 2015, representing approximately 29% of services revenue and approximately 22% of total revenue, respectively. The growth of CSSE revenues is influenced by: (1) new license revenue growth; (2) annual renewal of support contracts; (3) increase in customers through acquisitions; and (4) fluctuations in currency rates. Substantially all of our customers renew their annual support contracts. Over the last three years, our annual revenue renewal rate of customers subscribing to comprehensive support and enhancements has been greater than 90%. CSSE revenue is generally paid in advance and recognized ratably over the term of the agreement, typically twelve months. CSSE renewal revenue is recognized over the renewal period and recognition is not initiated until payment is received from the customer.

Hardware and other revenue: Our hardware and other revenue totaled $49.7 million in 2015 representing 9% of total revenue with gross margins of 17.2%. In conjunction with the licensing of our software, and as a convenience for our customers, we resell a variety of hardware products developed and manufactured by third parties. These products include computer hardware, radio frequency terminal networks, RFID chip readers, bar code printers and scanners, and other peripherals. We resell all third-party hardware products and related maintenance pursuant to agreements with manufacturers or through distributor-authorized reseller agreements pursuant to which we are entitled to purchase hardware products and services at discount prices. We generally purchase hardware from our vendors only after receiving an order from a customer. As a result, we do not maintain hardware inventory.

Other revenue represents amounts associated with reimbursements from customers for out-of-pocket expenses. The total amount of expense reimbursement recorded to hardware and other revenue was $20.2 million, $18.9 million, and $15.3 million for 2015, 2014 and 2013, respectively.

Product Development

We continue to invest significantly in research and development (R&D) to provide leading solutions that help global retailers, manufacturers, wholesalers, distributors and logistics providers successfully manage accelerating and fluctuating demands as well as the increasing complexity and volatility of their local and global supply chains, retail store operations and point of sale. Our research and development expenses for the years ended December 31, 2015, 2014 and 2013 were $53.9 million, $49.0 million, and $44.5 million, respectively. At December 31, 2015, our R&D organization totaled approximately 680 employees, located in the U.S. and India.

We expect to continue to focus our R&D resources on the development and enhancement of our core supply chain, inventory optimization, omni-channel and point of sale software solutions. We offer what we believe to be the broadest solution portfolio in the supply chain solutions marketplace, to address all aspects of inventory optimization, transportation management, distribution management, planning, and omni-channel operations including order management, store inventory & fulfillment, call center and point of sale.

We also plan to continue to enhance our existing solutions and to introduce new solutions to address evolving industry standards and market needs. We identify opportunities to further enhance our solutions and to develop and provide new solutions through our customer support organization, as well as through ongoing customer consulting engagements and implementations, interactions with our user groups, association with leading industry analysts and market research firms, and participation on industry standards and research committees. Our solutions address the needs of customers in various vertical markets, including retail, consumer goods, food and grocery logistics service providers, industrial and wholesale, high technology and electronics, life sciences, and government.

Cash Flow and Financial Condition

For 2015, we generated cash flow from operating activities of $120.2 million and have generated a cumulative total of $303.7 million for the three years ended December 31, 2015. Our cash and investments at December 31, 2015 totaled $128.8 million, with no debt on our balance sheet. We currently have no credit facilities. During the past three years, our primary uses of cash have been funding investment in R&D and operations to drive earnings growth and repurchases of common stock.

During 2015, we repurchased approximately $101.6 million of Manhattan Associates' outstanding common stock under the share repurchase program approved by our Board of Directors throughout the year.

In 2016, we anticipate that our priorities for use of cash will be in hiring, developing sales and services resources and continued investment in product development to extend our market leadership. We will continue to evaluate acquisition opportunities that are complementary to our product footprint and technology direction. We will also continue to weigh our share repurchase options against cash for acquisitions and investing in the business. We do not anticipate any borrowing requirements in 2016 for general corporate purposes.

Full Year 2015 Financial Summary

- Diluted earnings per share for the twelve months ended December 31, 2015 was $1.40, compared to $1.08 for the twelve months ended December 31, 2014;
- Consolidated revenue for the twelve months ended December 31, 2015 was $556.4 million, compared to $492.1 million for the twelve months ended December 31, 2014. License revenue was $78.6 million for the twelve months ended December 31, 2015, compared to $71.6 million for the twelve months ended December 31, 2014;
- Operating income was $161.4 million for the twelve months ended December 31, 2015, compared to $127.1 million for the twelve months ended December 31, 2014;
- Operating margins for 2015 were 29.0% compared to operating margins of 25.8% in 2014;
- Cash flow from operations totaled $120.2 million for the full year 2015 compared to $94.2 million in 2014;
- Cash and investments on hand at December 31, 2015 was $128.8 million compared to $124.4 million at December 31, 2014;
- During the twelve months ended December 31, 2015, the Company repurchased approximately 1.7 million shares of Manhattan Associates common stock under the share repurchase program authorized by our Board of Directors, for a total investment of $101.6 million; and
- In January 2016, our Board of Directors approved raising the Company’s remaining share repurchase authority to $50 million of Manhattan Associates’ outstanding common stock.

Results of Operations

The following table summarizes selected Statement of Income data for the years ended December 31, 2015, 2014 and 2013.

	Year Ended December 31,			% Change vs. Prior Year	
	2015	2014	2013	2015	2014
	(in thousands)				
Revenue:					
Software license	$78,615	$71,583	$62,416	10%	15%
Services	428,078	376,023	315,901	14%	19%
Hardware and other	49,678	44,498	36,201	12%	23%
Total revenue	556,371	492,104	414,518	13%	19%
Costs and expenses:					
Cost of license	9,938	7,110	8,724	40%	-19%
Cost of services	184,349	169,140	142,236	9%	19%
Cost of hardware and other	41,141	36,328	30,191	13%	20%
Research and development	53,859	48,953	44,549	10%	10%
Sales and marketing	48,615	52,617	44,559	-8%	18%

General and administrative	49,259	44,455	37,147	11%	20%
Depreciation and amortization	7,764	6,377	5,825	22%	9%
Total costs and expenses	394,925	364,980	313,231	8%	17%
Income from operations	$161,446	$127,124	$101,287	27%	26%
Operating margin	29.0%	25.8%	24.4%		

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The Company has three geographic reportable segments: the Americas, EMEA, and APAC. Geographic revenue information is based on the location of sale. The revenues represented below are from external customers only. The geographical-based expenses include costs of personnel, direct sales, and marketing expenses, and general and administrative costs to support the business. There are certain corporate expenses included in the Americas segment that are not charged to the other segments including research and development, certain marketing and general and administrative costs that support the global organization, and the amortization of acquired developed technology. Included in the Americas costs are all research and development costs, including the costs associated with the Company's India operations. During 2015, 2014 and 2013, we derived the majority of our revenues from sales to customers within our Americas segment. The following table summarizes revenue and operating profit by segment:

	Year Ended December 31,			% Change vs. Prior Year	
	2015	2014	2013	2015	2014
Revenue:	(in thousands)				
Software license					
Americas	$65,307	$59,502	$49,574	10%	20%
EMEA	9,566	7,505	7,858	27%	-4%
APAC	3,742	4,576	4,984	-18%	-8%
Total software license	78,615	71,583	62,416	10%	15%
Services					
Americas	352,665	301,025	254,934	17%	18%
EMEA	58,030	51,440	41,020	13%	25%
APAC	17,383	23,558	19,947	-26%	18%
Total services	428,078	376,023	315,901	14%	19%
Hardware and Other					
Americas	46,504	41,437	33,836	12%	22%
EMEA	2,480	1,910	1,536	30%	24%
APAC	694	1,151	829	-40%	39%
Total hardware and other	49,678	44,498	36,201	12%	23%
Total Revenue					
Americas	464,476	401,964	338,344	16%	19%
EMEA	70,076	60,855	50,414	15%	21%
APAC	21,819	29,285	25,760	-25%	14%
Total revenue	$556,371	$492,104	$414,518	13%	19%
Operating income:					
Americas	$133,823	$101,936	$83,451	31%	22%
EMEA	22,310	15,313	10,288	46%	49%
APAC	5,313	9,875	7,548	-46%	31%
Total operating income	$161,446	$127,124	$101,287	27%	26%

The consolidated results of our operations for the years ended December 31, 2015, 2014 and 2013 are discussed below.

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Revenue

Our revenue consists of fees generated from the licensing and hosting of software; fees from professional services, customer support services and software enhancements; hardware sales of complementary radio frequency and computer equipment; and other revenue representing amounts associated with reimbursements from customers for out-of-pocket expenses.

	Year Ended December 31,			% Change vs. Prior Year		% of Total Revenue		
	2015	2014	2013	2015	2014	2015	2014	2013
	(in thousands)				0.7	(2.3)	(2.6)	
Excess tax benefits related to share-based compensation	(66.0)	(20.1)						
Net deferred tax assets re-measurement [1]	51.8							
Other	1.0	(2.5)						
Effective income tax rate	11.2%	23.3%	40.0%					

[1] Due to the impact of the Tax Reform Act.

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act (the Tax Reform Act). The Tax Reform Act makes significant changes in the U.S. tax code including the following:

- reduction of the corporate federal income tax rate from 35% to 21%;
- repeal of the domestic manufacturing deduction;
- repeal of the corporate alternative minimum tax;
- a one-time transition tax on accumulated foreign earnings (if any);
- a move to a territorial tax system; and
- acceleration of business asset expensing.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118) to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for income tax effects of the Tax Reform Act. The Company has recognized the provisional tax impacts in 2017, including $20.4 million in additional income tax expense in the fourth quarter of 2017 to re-measure its deferred tax assets to the 21% enacted rate. The final amounts may differ from these provisional amounts, possibly materially, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, additional regulatory guidance that may be issued, and actions the Company may take as a result of the Tax Reform Act.

The Tax Reform Act provided for a one-time deemed mandatory repatriation of post-1986 undistributed foreign subsidiary earnings and profits through December 31, 2017. Based on the Company s provisional analysis performed to date, the Company does not expect to be subject to the one-time transition tax due to our foreign subsidiaries being in a net accumulated deficit position.

While the Tax Reform Act provides for a territorial tax system, beginning in 2018, it includes the following new anti-abuse provisions:

The global intangible low-taxed income (GILTI) provisions require the Company to include in its U.S. income tax base foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary s tangible assets. The Company expects that it will be subject to incremental U.S. tax resulting from GILTI inclusions beginning in 2018. However, our analysis and accounting for the effects of the GILTI provision is incomplete and an accounting policy on whether we will account for impact of GILTI inclusions in the period in which it is incurred or record deferred taxes for anticipated GILTI inclusions has not been made.

The base-erosion and anti-abuse tax (BEAT) provisions in the Tax Reform Act impose an alternative minimum tax on taxpayers with substantial base-erosion payments. Our preliminary assessment is that the company will not be subject to the BEAT; however, our analysis is incomplete and we will continue to analyze the impact of the BEAT provisions to determine if these would be material to the company s effective tax rate.

Deferred income taxes

Significant components of net deferred tax assets and liabilities are as follows:

	December 31,	
(in thousands)	**2017**	**2016**
Deferred tax assets:		
Net operating loss carryforwards	$ 52,311	$ 69,307
Accruals and reserves	22,984	34,021
Software revenue	2,686	6,559
Depreciation	2,558	3,593
Tax credit carryforwards	13,056	8,094
Other	52	19
Total deferred tax assets	93,647	121,593
Less valuation allowances	(27,993)	(34,054)
Total net deferred tax assets	65,654	87,539
Deferred tax liabilities:		
Intangibles	(8,527)	(17,641)
Total deferred tax liabilities	(8,527)	(17,641)
Deferred income taxes	$ 57,127	$ 69,898

Due to the Tax Reform Act U.S. deferred tax assets and liabilities were re-measured from 35% to 21% resulting in an additional $20.4 million income tax expense in the fourth quarter of 2017.

The Company regularly assesses the need for a valuation allowance against its deferred tax assets. In making that assessment, the Company considers both positive and negative evidence related to the likelihood of realization of the deferred tax assets to determine, based on the weight of available evidence, whether it is more-likely-than-not that some or all of the deferred tax assets will not be realized. This determination requires significant judgment, including assumptions about future taxable income that are based on historical and projected information. The $6.1 million net change in the valuation allowance during the period primarily relates to a $7.4 million decrease due to the re-measurement our deferred income taxes to the new U.S. statutory tax rate offset by $0.8 million increase for movements in foreign exchange rates and $0.5 million valuation allowance recorded against certain state R&D credits generated in the period.

At December 31, 2017, the Company had $99.2 million and $3.3 million in federal and state net operating losses, respectively, and $3.4 million and $1.8 million in federal and state credit carryforwards, respectively. These amounts include $99.2 million and $1 million in federal and state net operating losses carryforwards, respectively, from acquisitions and $0.6 million and $0.3 million in federal and state credit carryforwards, respectively, from acquisitions. The carryforward losses and credits expire between 2018 and 2037, except for $0.6 million in state credits that have unlimited carryforward periods. The federal and state net operating losses exclude $60.2 million and $0.8 million, respectively, in net operating losses that the Company expects will expire unutilized, and the federal and state tax credits exclude $0.1 million and $6.7 million, respectively, in tax credits that the Company expects will expire unutilized.

As of December 31, 2017, the Company had available $33.5 million of foreign NOLS which have an unlimited carryover period.

The Company s India subsidiary is a development center in an area designated as a Special Economic Zone (SEZ) and is entitled to a tax holiday in India. The tax holiday reduces or eliminates income tax in that country and is scheduled to expire in 2022. For 2017, 2016 and 2015, the effect of the income tax holiday was to reduce the Company s provision for income taxes by approximately $1.3 million, $1 million, and $0.9 million, respectively. The benefit of the tax holiday on net income per share (diluted) was $0.02 for 2017 and $0.01 for 2016 and 2015.

The Company adopted ASU 2016-09 in 2016, which required, among other things, excess tax benefits to be recorded as a reduction of the provision for income taxes, whereas they were previously recognized in equity. The Company was required to reflect any adoption adjustments as of January 1, 2016, the beginning of the annual period that included the period of adoption. Upon adoption the Company recorded a $0.3 million increase to retained earnings as of January 1, 2016, with an offsetting increase to long-term deferred income tax assets.

Uncertain tax benefits and other considerations

A reconciliation of the beginning and ending balances of the total amounts of gross unrecognized tax benefits is as follows:

(in thousands)	**2017**	**2016**	**2015**
Balance as of January 1,	$ 22,671	$ 23,972	$ 43,396
Additions based on tax positions related to the current year	452	80	817
Additions for tax positions of prior years	238	110	183
Additions for acquired uncertain tax benefits		387	
Reductions for change in US federal tax rate	(2,424)		
Reductions for tax positions of prior years	(1,500)	(1,541)	(19,855)
Reductions for a lapse of the applicable statute of limitations	(287)	(337)	(569)
Balance as of December 31,	$ 19,150	$ 22,671	$ 23,972

As of December 31, 2017, the Company had approximately $19.2 million of total unrecognized tax benefits, which would decrease the Company s effective tax rate if recognized. The $2.4 million reduction for change in U.S. federal tax rate relates to a decrease in the uncertain tax benefits recorded against deferred tax items (e.g., net operating losses) corresponding with the re-measurement of the associated deferred tax assets to the new U.S. statutory tax rate. The $1.5 million reduction for tax positions of prior years primarily relates the lapse in the applicable statute of limitations, change in estimates, and the impact of foreign currency exchange rates. The Company expects that the changes in the unrecognized benefits within the next twelve months will be approximately $0.5 million due to a lapse of applicable statute of limitations.

The Company recognizes interest accrued and penalties related to unrecognized tax benefits in the income tax provision. For 2017 the Company did not recognize any significant change in net interest expense. For the 2016 and 2015, the Company recognized a decrease of approximately $0.6 million and an increase of $0.3 million, respectively, of interest expense. As of December 31, 2017, 2016 and 2015, the company did not recognize any significant penalties. As of December 31, 2017, 2016 and 2015, the Company had accrued approximately $1.5 million, $1.2 million, and $1.2 million, respectively, for interest and penalties.

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The Company files income tax returns in the U.S. and in foreign jurisdictions. We have no tax returns under examination by the Internal Revenue Service or state taxing authorities as of December 31, 2017. However, certain foreign jurisdictions are auditing our income tax returns for periods ranging from 2010 through 2014. The Company does not expect the results of these audits to have a material effect on our financial condition, results of operations, or cash flows. With few exceptions, the statute of limitations remains open in all jurisdictions for the tax years 2014 to the present.

16. EARNINGS PER SHARE

Basic earnings per share is computed using the weighted-average number of common shares outstanding during the applicable period. Diluted earnings per share is computed using the weighted-average number of common shares outstanding during the applicable period, plus the dilutive effect of outstanding options and RSUs, using the treasury stock method and the average market price of the Company s common stock during the applicable period. Certain shares related to some of the Company s outstanding stock options and RSUs were excluded from the computation of diluted earnings per share because they were antidilutive in the periods presented, but could be dilutive in the future.

(in thousands except per share amounts)	2017	2016	2015
Basic			
Net income	$ 32,934	$ 26,986	$ 36,322
Weighted-average common shares outstanding	77,431	76,343	76,507
Earnings per share, basic	$ 0.43	$ 0.35	$ 0.47
Diluted			
Net income	$ 32,934	$ 26,986	$ 36,322
Weighted-average effect of dilutive securities:			
Stock options	3,471	2,025	1,601
RSUs	1,930	1,364	935
Effect of assumed exercise of stock options and RSUs	5,401	3,389	2,536
Weighted-average common shares outstanding, assuming dilution	82,832	79,732	79,043
Earnings per share, diluted	$ 0.40	$ 0.34	$ 0.46
Outstanding options and RSUs excluded as impact would be antidilutive	221	322	182

17. GEOGRAPHIC INFORMATION AND MAJOR CLIENTS

Geographic Information

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker (CODM) in deciding how to allocate resources and in assessing performance.

The Company develops and licenses its strategic software applications and Pega Platform, and provides consulting services, maintenance, and training related to its offerings. The Company derives substantially all of its revenue from the sale and support of one group of similar products and services software that provides case management, business process management, and real-time decisioning solutions to improve customer engagement and operational excellence in the enterprise applications market. To assess performance, the Company s CODM, who is the chief executive officer, reviews financial information on a consolidated basis. Therefore, the Company determined it has one reportable segment and one reporting unit.

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The Company s international revenue is from clients based outside of the U.S. The Company derived its revenue from the following geographic areas:

(Dollars in thousands)	2017		2016		2015	
U.S.	$ 474,819	56%	$ 430,562	57%	$ 379,936	56%
Other Americas	39,490	5%	59,160	8%	57,892	8%
U.K.	90,817	11%	101,733	14%	96,314	14%
Other EMEA [1]	130,889	16%	92,540	12%	87,240	13%
Asia Pacific	104,567	12%	66,271	9%	61,313	9%
	$ 840,582	100%	$ 750,266	100%	$ 682,695	100%

(1) Includes the Middle East, Africa, and Europe excluding the U.K.

Long-lived assets related to the Company s U.S. and international operations were as follows:

	December 31,			
(Dollars in thousands)	2017		2016	
U.S.	$ 27,590	68%	$ 27,993	73%
India	6,703	17%	7,158	19%
International, other	6,066	15%	3,130	8%
	$ 40,359	100%	$ 38,281	100%

Major Clients

Clients accounting for 10% or more of the Company s total revenue were as follows:

(Dollars in thousands)	2017	2016	2015
Total revenue	$ 840,582	$ 750,266	$ 682,695
Client A	10%	*	*

Clients accounting for 10% or more of the Company s trade accounts receivable were as follows:

	December 31,	
(Dollars in thousands)	2017	2016
Trade accounts receivable	$ 248,331	$ 265,028
Client A	12%	*

* *Client accounted for less than 10% of total revenue and trade accounts receivable*

The Company s financial services, healthcare, and insurance clients as a group represent a significant amount of the Company s revenues and receivables. However, the Company determined this concentration did not have a material impact on its allowance for sales credit memos as of December 31, 2017

In addition to accounts receivable, the Company is potentially subject to concentrations of credit risk from the Company s cash, cash equivalents, and marketable securities. The Company s cash and cash equivalents are generally held with large, diverse financial institutions worldwide to reduce the credit risk exposure. Investment policies have been implemented that limit purchases of marketable debt securities to investment-grade securities. Note 3 Marketable Securities and Note 5 Fair Value Measurements for further discussion.

18. EMPLOYEE BENEFIT PLANS

The Company sponsors defined contribution plans for quantifying employees, including a 401(k) plan in the United States to which the Company makes discretionary matching contributions.

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The following expenses related to defined contribution plans were recorded in the Company s consolidated statements of operations:

(in thousands)	2017	2016	2015
U.S. 401(k) Plan	$ 5,003	$ 4,510	$ 4,061
International Plans	9,096	7,635	6,428
	$ 14,099	$ 12,145	$ 10,489

19. SELECTED QUARTERLY INFORMATION (UNAUDITED)

	2017			
(in thousands, except per share amounts)	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Revenue	$ 223,247	$ 197,980	$ 179,815	$ 239,540
Gross profit	155,157	130,105	110,084	165,563
Income/(loss) from operations	31,238	1,750	(14,289)	19,961
Income/(loss) before provision for income taxes	31,800	1,560	(14,697)	18,437
Net income/(loss)	27,021	11,406	(1,812)	(3,681)
Net income/(loss) per share, basic	$ 0.35	$ 0.15	$ (0.03)	$ (0.04)
Net income/(loss) per share, diluted	$ 0.33	$ 0.14	$ (0.03)	$ (0.04)

	2016 (1)			
(in thousands, except per share amounts)	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Revenue	$ 178,858	$ 188,996	$ 182,802	$ 199,610
Gross profit	122,348	128,896	122,365	137,401
Income from operations	14,125	6,360	5,498	11,776
Income before provision for income taxes	13,493	5,498	5,515	10,696
Net income	10,400	4,536	3,301	8,749
Net income per share, basic	$ 0.14	$ 0.06	$ 0.04	$ 0.11
Net income per share, diluted	$ 0.13	$ 0.06	$ 0.04	$ 0.11

(1) The Company elected to early adopt ASU 2016-09 in the fourth quarter of 2016, which requires, among other things, excess tax benefits to be recorded as a reduction of the provision for income taxes in the consolidated statement of operations, whereas they were previously recognized in equity. The Company is required to reflect any adoption adjustments as of January 1, 2016, the beginning of the annual period that includes the period of adoption. As such, certain information above includes the impact of the ASU 2016-09 adoption.

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

None.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer, or CEO, and Chief Financial Officer, or CFO, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act) as of December 31, 2017. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2017.

Management s Report on and Changes in Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act. Under the supervision and with the participation of our management, including our CEO and CFO, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2017 based on the framework in the updated *Internal Control Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) on May 14, 2013. Based on this evaluation, management has concluded that (i) our internal control over financial reporting was effective as of December 31, 2017 and (ii) no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act) occurred during the quarter ended December 31, 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Deloitte & Touche LLP, our independent registered public accounting firm which also audited our consolidated financial statements, has issued an attestation report on our internal control over financial reporting, which is included in Item 8 Financial Statements and Supplementary Data

ITEM 9B. Other Information

None.

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PART III

ITEM 10. Directors, Executive Officers, and Corporate Governance

Except as set forth below, the information required by this Item is contained in our proxy statement for our 2018 annual stockholders meeting (the 2018 proxy statement) under the heading Election of Directors, and is incorporated herein by reference. Information relating to certain filings on Forms 3, 4, and 5 is contained in our 2018 proxy statement under the heading Section 16(a) Beneficial Ownership Reporting Compliance, and is incorporated herein by reference. Information required by this item pursuant to Items 407(c) (3), 407(d) (4), and 407(d) (5) of Regulation S-K relating to an audit committee financial expert, the identification of the audit committee of our Board of Directors and procedures of security holders to recommend nominees to our Board of Directors is contained in the 2018 proxy statement under the heading Corporate Governance and is incorporated herein by reference.

We have adopted a written code of conduct that applies to our Board of Directors and all of our employees, including our principal executive officer, principal financial officer, principal accounting officer, or persons performing similar functions. A copy of our code of conduct can be found on our website, www.pega.com. We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K and under the applicable the NASDAQ Global Select Market rules by posting such information on our website in accordance with such requirements.

EXECUTIVE OFFICERS

The names of our executive officers and certain information about them are set forth below as of February 1, 2018:

Alan Trefler, age 61, a founder of Pegasystems, has served as Chief Executive Officer and Chairman of the Board of Directors since the Company was organized in 1983. Prior to 1983, he managed an electronic funds transfer product for TMI Systems Corporation, a software and services company. Mr. Trefler holds a B.A. degree in economics and computer science from Dartmouth College.

Kenneth Stillwell, age 47, joined Pegasystems in July 2016 as SVP, Chief Financial Officer and Chief Administrative Officer. Mr. Stillwell served as Senior Vice President and Chief Financial Officer of Dynatrace, a digital performance management solutions provider. Mr. Stillwell served as Executive Vice President and Chief Financial Officer of SOVOS, a financial compliance software as a service company. Prior to SOVOS, Mr. Stillwell spent time at PTC, a publicly traded software provider, where he served as the divisional CFO of two major segments. Mr. Stillwell holds a B.S. in business/economics from the University of Pittsburgh and a M.S. in accounting and finance from the University of South Carolina, and he is a certified public accountant.

Efstathios Kouninis, age 56*,* joined Pegasystems in April 2008 as Vice President of Finance. The Board of Directors appointed Mr. Kouninis as the Company s Chief Accounting Officer in May 2008 and Treasurer in January 2014. From February 2006 to April 2008, Mr. Kouninis served as Chief Financial Officer and Treasurer of Tasker Products Corporation, a publicly traded manufacturer of antimicrobial chemicals. From November 2004 to February 2006, Mr. Kouninis served on the Staff of the Division of Corporation Finance of the U. S. Securities and Exchange Commission. Mr. Kouninis holds a B.S. from the University of Massachusetts, a Post Baccalaureate in accounting, and a M.S. in taxation from Bentley College.

Douglas Kra, age 55*,* joined Pegasystems in November 2004 as Vice President of Global Services. In January 2010, Mr. Kra was promoted to Senior Vice President of Global Services. In July 2014, the Company re-organized its sales and consulting services functions under one responsibility for specific geographic regions, and Mr. Kra was promoted to Senior Vice President of Global Customer Success for international regions. From 2002 to 2004, Mr. Kra served as Vice President at eLoyalty Corp., a consulting company specializing in customer relationship management. From 2000 to 2001, Mr. Kra served as President of Zefer Corp., an internet consulting firm. Prior to Zefer, Mr. Kra spent ten years at Cambridge Technology Partners Inc. in a variety of senior roles. Mr. Kra holds a B.A. in computer science from Brandeis University and an M.B.A. in finance from the New York University Stern School of Business.

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Michael Pyle, age 63, joined Pegasystems in 1985 and has served as Senior Vice President of Engineering since August 2000. Including his positions with Pegasystems, Mr. Pyle s professional background encompasses more than forty years of software development and managerial experience throughout Europe and the U.S. Mr. Pyle completed his B.C.S. specializing in computer science and systems programming at the Civil Service College in London.

Leon Trefler, age 57, joined Pegasystems in April 1998 as an Account Executive for Strategic Business Development. Since then he has held various senior sales management positions across the Company and in Channel Sales. In 2002, he launched the commercialization of PegaRULES Process Commander, the predecessor to the Pega Platform. From April 2007 to January 2010, Mr. Trefler served as Vice President of Sales, North America and in January 2010, Mr. Trefler was promoted to Senior Vice President of Sales. In July 2014, the Company re-organized its sales and consulting services functions under one responsibility for specific geographic regions, and Mr. Trefler was promoted to Senior Vice President of Global Customer Success for the Americas region. Mr. Trefler holds a B.A. degree from Dartmouth College.

Alan Trefler and Leon Trefler are brothers. There are no other family relationships among any of our executive officers or Directors.

ITEM 11. Executive Compensation

The information required by this item is contained in the 2018 proxy statement under the headings Director Compensation , Compensation Discussion and Analysis , and Executive Compensation and is incorporated herein by reference.

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

Information required by this item with respect to stock ownership of certain beneficial owners and management is contained in the 2018 proxy statement under the heading Security Ownership of Certain Beneficial Owners and Management and is incorporated herein by reference.

Equity Compensation Plan Information

The following table provides certain information with respect to our equity compensation plans in effect as of December 31, 2017:

(In thousands, except per share amounts)	Number of shares of common stock to be issued upon exercise of outstanding stock options and vesting of RSUs (3)	Weighted-average exercise price per share of outstanding stock options (4)	Number of shares of common stock remaining available for future issuance (excluding those in column (a)) (5)

Equity compensation plans approved by stockholders[1]	10,010	$	26.14	9,234
Equity compensation plans not approved by stockholders[2]	21	$	11.99	

(1) We currently maintain two equity compensation plans: the 2004 Long-Term Incentive Plan (as amended and restated, the 2004 Plan) and the 2006 Employee Stock Purchase Plan as amended, (the 2006 ESPP). In addition to the issuance of stock options, the 2004 Plan allows for the issuance of stock purchase rights and other stock-based awards, including RSUs. Since 2006, the Company has granted unrestricted shares of its common stock to its non-employee directors under the 2004 Plan. Our stockholders previously approved each of these plans and all amendments that were subject to stockholder approval. See Note 14 Stock-Based Compensation in Item 8 of this Annual Report for further information and description of our equity compensation plans.

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(2) These stock options were assumed in connection with our acquisition of Chordiant in 2010 and were originally granted under the Chordiant Software, Inc. 2005 Equity Incentive Plan (the 2005 Plan). No additional awards were or may be granted under the 2005 Plan following the date of acquisition. This plan was not approved by our stockholders since it was adopted on the date of acquisition. In connection with our acquisition of Chordiant, all outstanding equity awards issued under the 2005 Plan with an exercise price of $3.00, on a post-split basis, or lower were assumed by us and converted into the right to receive 0.13 shares of Pegasystems common stock for every one share of Chordiant common stock covered by such awards. All other outstanding equity awards issued under the 2005 Plan were cancelled. The 2005 Plan was approved by Chordiant s stockholders and provided for the grant of incentive stock options, nonstatutory stock options, stock purchase awards, RSAs, RSUs, and other forms of equity compensation. Awards granted under the 2005 Plan generally expire four to ten years after the grant date and generally become exercisable over a period of two to four years, with either yearly or monthly vesting.

(3) The number of shares of common stock issued upon exercise of vested stock options and vesting of RSUs will be less than 10 million because of the net settlement feature of most of these stock options and RSUs. This feature enables the Company to withhold shares to cover the cost to exercise (in the case of stock options) and, if applicable, taxes due (in the case of stock options and RSUs) based on the fair value of the shares at the exercise date (in the case of stock options) or vesting date (in the case of RSUs), instead of selling all of the shares on the open market to satisfy these obligations. The settlement of exercised stock options and vested RSUs on a net share basis will result in fewer shares issued by the Company. During 2017, stock option and RSU holders net settled stock options and RSUs representing the right to purchase a total of 2.9 million shares, of which only 1.5 million were issued to the stock option and RSU holders and the balance of the shares were surrendered to the Company to pay for the exercise price and the applicable taxes.

(4) The weighted-average exercise price does not take into account the shares issuable upon vesting of outstanding RSUs, which have no exercise price.

(5) Includes approximately 0.6 million shares remaining available for issuance as of December 31, 2017 under the 2006 ESPP.

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

The information required by this item is contained in the 2018 proxy statement under the headings Certain Relationships and Related Transactions and Determination of Independence and is incorporated herein by reference.

ITEM 14. Principal Accounting Fees and Services

The information required by this item is contained in the 2018 proxy statement under the heading Independent Registered Public Accounting Firm Fees and Services and is incorporated herein by reference.

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PART IV

ITEM 15. Exhibits, Financial Statement Schedules

(a) The following are filed as part of this Annual Report:

(1) Financial Statements

The following consolidated financial statements are included in Item 8:

(b) Exhibits

Exhibit No.	**Description**
2.1	Agreement and Plan of Merger, dated as of October 9, 2013, by and among Pegasystems Inc., Aries Merger Sub, Inc., Antenna Software, Inc. and Shareholder Representative Services LLC, solely in its capacity as representative of Stockholders thereunder. (Filed as Exhibit 2.1 to the Registrant s October 11, 2013 Form 8-K and incorporated herein by reference.)
3.1	Restated Articles of Organization of the Registrant and Amendments thereto. (Filed as Exhibit 3.1 to the Registrant s September 30, 2014 Form 10-Q and incorporated herein by reference.)
3.2	Amended and Restated Bylaws of Pegasystems Inc. (Filed as Exhibit 3.2 to the Registrant s September 8, 2017 Form 8-K and incorporated herein by reference.)
4.1	Specimen Certificate Representing the Common Stock. (Filed as Exhibit 4.1 to the Registrant s Registration Statement on Form S-1 (Registration No. 333-03807) or an amendment thereto and incorporated herein by reference.)
+10.1++	2004 Long-Term Incentive Plan (as amended and restated)
10.2++	Restricted Stock Unit Sub-Plan of the Registrant s 2004 Long-Term Incentive Plan for French Participants (Filed as Appendix B within the Registrant s 2016 Proxy Statement, filed April 18, 2016 and incorporated herein by reference.)
10.3++	Form of Employee Stock Option Agreement, as amended. (Filed as Exhibit 10.3 to the Registrant s March 31, 2017 Form 10-Q and incorporated herein by reference.)
10.4++	Form of Restricted Stock Unit Agreement, as amended. (Filed as Exhibit 10.4 to the Registrant s March 31, 2017 Form 10-Q and incorporated herein by reference.)

10.5++	Form of Non-Employee Director Stock Option Agreement. (Filed as Exhibit 10.2 to the Registrant s September 30, 2004 Form 10-Q and incorporated herein by reference.)
10.6++	Offer Letter between the Registrant and Douglas I. Kra dated October 19, 2004. (Filed as Exhibit 10.20 to the Registrant s 2004 Form 10-K and incorporated herein by reference.)
10.7	Form of Director Indemnification Agreement. (Filed as Exhibit 99.1 to the Registrant s April 11, 2005 Form 8-K and incorporated herein by reference.)
10.9	Lease Agreement, dated June 29, 2011 between Charles Park One, LLC and Pegasystems Inc. for premises at One Charles Park (Filed as Exhibit 99.1 to the Registrant s Form 8-K/A filed on July 6, 2011 and incorporated herein by reference.)

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Exhibit No.	Description
10.10++	2006 Employee Stock Purchase Plan, as amended on October 25, 2013. (Filed as Exhibit 10.24 to the Registrant s 2012 Form 10-K and incorporated herein by reference.)
10.11++	2016 Section 16 Officer/FLT Member Corporate Incentive Compensation Plan. (Filed as Exhibit 99.1 to the Registrant s February 24, 2016 Form 8-K and incorporated herein by reference.)
10.12++	2016 Section 16 Executive Officers Base Salaries and Target Bonus Payments. (Filed as Exhibit 99.1 to the Registrant s March 15, 2016 Form 8-K and incorporated herein by reference.)
10.13++	Compensation program for non-employee members of the Registrant s Board of Directors. (Filed as Exhibit 10.1 to the Registrant s June 30, 2014 Form 10-Q and incorporated herein by reference.)
10.14++	2017 Section 16 Officer/FLT Member Corporate Incentive Compensation Plan. (Filed as Exhibit 99.1 to the Registrant s March 8, 2017 Form 8-K and incorporated herein by reference.)
10.15++	2015 Section 16 Executive Officers Base Salaries and Target Bonus Payments. (Filed as Exhibit 99.2 to the Registrant s February 3, 2015 Form 8-K and incorporated herein by reference.)
10.16++	Compensation program for non-employee members of the Registrant s Board of Directors, effective August 6, 2015. (Filed as Exhibit 10.1 to the Registrant s September 30, 2015 Form 10-Q and incorporated herein by reference.)
10.17	First Amendment to Lease Agreement dated November 11, 2014 between Charles Park One, LLC and Pegasystems Inc. (Filed as Exhibit 10.2 to the Registrant s September 30, 2015 Form 10-Q and incorporated herein by reference.)
10.18++	Offer Letter between the Registrant and Kenneth Stillwell dated June 1, 2016. (Filed as Exhibit 99.1 to the Registrant s June 14, 2016 Form 8-K and incorporated herein by reference.)
10.19++	Compensation program for non-employee members of the Registrant s Board of Directors, effective May 18, 2016. (Filed as Exhibit 10.1 to the Registrant s June 30, 2016 Form 10-Q and incorporated herein by reference.)
10.20++	2018 Section 16 Officer/FLT Member Corporate Incentive Compensation Plan. (Filed as Exhibit 99.1 to the Registrant s December 27, 2017 Form 8-K and incorporated herein by reference.)
+21.1	Subsidiaries of the Registrant.
+23.1	Consent of Independent Registered Public Accounting Firm Deloitte & Touche LLP.
+31.1	Certification pursuant to Exchange Act Rules 13a-14 and 15d-14 of the Chief Executive Officer.
+31.2	Certification pursuant to Exchange Act Rules 13a-14 and 15d-14 of the Chief Financial Officer.
+32	Certification pursuant to 18 U.S.C. Section 1350 of the Chief Executive Officer and the Chief Financial Officer.
101.INS**	XBRL Instance document.
101.SCH**	XBRL Taxonomy Extension Schema Document.
101.CAL**	XBRL Taxonomy Calculation Linkbase Document.
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB**	XBRL Taxonomy Label Linkbase Document.

101.PRE**	XBRL Taxonomy Presentation Linkbase Document.

+ Filed herewith
++ Management contracts and compensatory plan or arrangements required to be filed pursuant to Item 15(b) of Form 10-K.
** Submitted electronically herewith

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(c) Financial Statement Schedules

All financial statement schedules are omitted because the required information is not present or not present in sufficient amounts to require submission of the schedule or because the information is reflected in the consolidated financial statements or notes thereto.

ITEM 16. Form 10-K Summary
Omitted at registrant s option

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Pegasystems Inc.

Date: February 26, 2018

By: /s/ KENNETH STILLWELL
Kenneth Stillwell
Chief Financial Officer and Chief Administrative Officer
(Principal Financial Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below on February 26, 2018 by the following persons on behalf of the Registrant and in the capacities indicated.

Signature	Title
/s/ ALAN TREFLER **Alan Trefler**	Chairman and Chief Executive Officer (Principal Executive Officer)
/s/ KENNETH STILLWELL **Kenneth Stillwell**	Chief Financial Officer and Chief Administrative Officer (Principal Financial Officer)
/s/ EFSTATHIOS KOUNINIS **Efstathios Kouninis**	Vice President of Finance, Chief Accounting Officer and Treasurer (Principal Accounting Officer)
/s/ RICHARD JONES **Richard Jones**	Director
/s/ PETER GYENES **Peter Gyenes**	Director
/s/ STEVEN KAPLAN **Steven Kaplan**	Director
/s/ DIANNE LEDINGHAM **Dianne Ledingham**	Director
/s/ JAMES O HALLORAN **James O Halloran**	Director

/s/ SHARON ROWLANDS **Sharon Rowlands**	Director
/s/ LARRY WEBER **Larry Weber**	Director
/s/ WILLIAM WYMAN **William Wyman**	Director

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