

AMERICAN SOFTWARE INC  
Form 10-K  
July 13, 2018  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT  
OF 1934**

**For the fiscal year ended April 30, 2018**

**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 0-12456**

**AMERICAN SOFTWARE, INC.**

**(Exact name of registrant as specified in its charter)**

**Georgia**  
**(State or other jurisdiction of**  
**incorporation or organization)**

**470 East Paces Ferry Road, N.E.**

**Atlanta, Georgia**  
**(Address of principal executive offices)**

**(404) 261-4381**

**58-1098795**  
**(IRS Employer**  
**Identification No.)**

**30305**  
**(Zip Code)**

**Registrant's telephone number, including area code**

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

**Title of each class**

**Name of each exchange on which registered**

**None**

**None**

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

**Class A Common Shares, \$0.10 Par Value**

**(Title of class)**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

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Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, an emerging growth company or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, emerging growth company and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

At October 31, 2017, the last business day of the registrant's most recently completed second fiscal quarter, 27,896,254 Class A Common Shares and 2,256,588 Class B Common Shares of the registrant were outstanding. The aggregate market value (based upon the closing price of Class A Common Shares as quoted on the NASDAQ National Market System at October 31, 2017) of the Class A Common Shares held by non-affiliates on that date was approximately \$373.8 million. At July 6, 2018, 29,020,336 Class A Common Shares and 1,885,995 Class B Common Shares of the registrant were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE; LOCATION IN FORM 10-K**

Portions of the Company's Proxy Statement for its 2018 Annual Meeting of Stockholders are incorporated by reference into Part III.

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**American Software Inc.**

**ANNUAL REPORT ON FORM 10-K**

**For the Fiscal Year Ended April 30, 2018**

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**PART I**

**ITEM 1. BUSINESS**

***Special Cautionary Notice Regarding Forward-Looking Statements***

*We believe that it is important to communicate our future expectations to our shareholders and to the public. This report contains forward-looking statements, including, in particular, statements about our goals, plans, objectives, beliefs, expectations and prospects, under the headings Item 1. Business and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in this report. You can identify these statements by forward-looking words such as anticipate, intend, plan, continue, could, grow, may, potential, predict, strive, will, seek, estimate, believe, expect, and similar expressions that convey uncertainty of future events or outcomes. Any forward-looking statements herein are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements concerning future:*

*results of operations;*

*liquidity, cash flow and capital expenditures;*

*demand for and pricing of our products and services;*

*viability and effectiveness of strategic alliances;*

*industry conditions and market conditions;*

*acquisition activities and the effect of completed acquisitions; and*

*general economic conditions.*

*Although we believe that the goals, plans, expectations, and prospects reflected by our forward-looking statements are reasonable in view of the information currently available to us, those statements are not guarantees of performance. There are many factors that could cause our actual results to differ materially from those anticipated by forward-looking statements made herein. These factors include, but are not limited to, continuing U.S. and global economic uncertainty, the timing and degree of business recovery, unpredictability and the irregular pattern of future revenues, dependence on particular market segments or customers, competitive pressures, delays, product liability and warranty claims and other risks associated with new product development, undetected software errors, market acceptance of our products, technological complexity, the challenges and risks associated with integration of acquired product lines, companies and services, as well as a number of other risk factors that could affect our future performance. Factors that could cause or contribute to such differences include, but are not limited to, those we discuss under the section captioned Risk Factors in Item 1A. of this Form 10-K as well as the cautionary*

*statements and other factors that we discuss in other sections of this Form 10-K.*

## **Company Overview**

American Software, Inc. ( **American Software** or the **Company** ) was incorporated as a Georgia corporation in 1970. We develop, market and support a portfolio of software and services that deliver supply chain and advanced retail planning solutions, product lifecycle management, supply chain management, product sourcing, vendor compliance and enterprise management to the global marketplace. Our software and services are designed to bring business value to enterprises by supporting their operations over cloud-based Internet-architected solutions. References to the **Company**, **our products**, **our software**, **our services** and similar references include the appropriate business segment actually providing the product or service.

We provide our software solutions through three major operating segments, which are further broken down into a total of six major product and service groups. The three operating segments are (1) Supply Chain Management ( **SCM** ), (2) Information Technology ( **IT** ) Consulting and (3) Other. Today, our customer base is approximately 1,350 companies located in more than 80 countries.

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The SCM segment consists of (i) Logility, Inc. ( Logility ) which provides supply chain optimization and advance retail planning solutions, as an integrated suite of sales and operations planning, demand optimization, inventory optimization, manufacturing planning and scheduling, supply optimization, retail allocation and merchandise planning, as well as (ii) Demand Management, Inc. ( DMI or Demand Management ), which provides Software as a Service ( SaaS ) architected supply chain planning solutions to streamline the forecasting, inventory, production, supply, allocation, distribution and management of products between trading partners, (iii) New Generation Computing ( NGC ), which provides cloud solutions for supply chain management, product lifecycle management, vendor quality, and vendor compliance and corporate social responsibility ( CSR ) for both brand retailers and manufacturers, and (iv) Halo, which provides advanced analytics and business intelligence solutions for the supply chain market. The SCM solutions are marketed and sold through both a direct sales team as well as an indirect global VAR (value added reseller) distribution network.

The IT Consulting segment consists of The Proven Method, Inc., an IT staffing and consulting services firm, which provides support for their customers products, such as software enhancements, documentation, updates, customer education, consulting, systems integration services, maintenance and support services. The Other segment consists of American Software ERP, which provides purchasing and materials management, customer order processing, financial, e-commerce and traditional manufacturing solutions, and unallocated corporate overhead expenses.

Previously, we maintained three operating segments: (1) SCM, (2) IT and (3) Enterprise Resource Planning ( ERP ). Following the organizational realignment during the third quarter fiscal 2018, NGC was repositioned out of the ERP segment and into the SCM segment due to the launch of the new Andromeda platform for Supply Chain Management. There were no changes to the IT segment. Certain prior year amounts have been recasted to conform to fiscal 2018 presentation. The change in reportable segments had no effect on our previously reported consolidated financial position or results of operations.

We derive revenues primarily from four sources: subscriptions, software licenses, services, and maintenance. We generally determine software license and SaaS subscription fees based on the depth of functionality, number of software modules, users and/or sites licensed and/or subscribed. Services and other revenues consist primarily of fees from software implementation, training, consulting services, SaaS, hosting, and managed services. We bill primarily under time and materials arrangements and recognize revenues as we perform services. Subscription and maintenance agreements typically are for a one- to three-year term, commencing at the time of the initial contract. We generally bill these fees annually in advance and then recognize the resulting revenues ratably over the term of the agreement. Deferred revenues represent advance payments or billings for subscriptions, software licenses, services and maintenance billed in advance of the time we recognize the related revenues.

Our cost of revenues for licenses includes amortization of developed technology and capitalized computer software development costs, salaries and benefits and value-added reseller (VAR) commissions. Costs for maintenance and services revenues include the cost of personnel to conduct implementations, customer support and consulting, and other personnel-related expenses as well as agent commission expenses related to maintenance revenues generated by the indirect channel.

Our sales and marketing expenses generally include the salaries and commissions we pay to our direct sales professionals, along with marketing, promotional, travel and associated costs. Our general and administrative expenses generally include the salaries and benefits we pay to executive, corporate and support personnel, as well as office rent, utilities, communications expenses, and various professional fees.

## **Industry Background**

Companies that effectively communicate, collaborate and integrate with their trading partners (customers, suppliers, and carriers) within the extended enterprise or across global supply chain networks can realize significant competitive advantages in the form of lower costs, improved customer service, and increased revenue. Supply chain management refers to the process of managing the complex network of relationships that organizations maintain with external trading partners to forecast demand, source, manufacture, distribute and deliver goods and services to their customers. Supply chain management involves both the activities related to supplying products or services (source, make, move, buy, store, and deliver) as well as the sales and marketing activities that influence the demand for goods and services, such as new product introductions, promotions, pricing and forecasting. The extended enterprise includes sourcing materials and vendor compliance for those activities, as well as product delivery to the customer's customer.



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Today, several market trends are driving organizations to expand collaboration with trading partners along the supply chain. Today's leading manufacturers and distributors have become more responsive to retailers and consumers, often referred to as omni-channel and more recently as Unified Commerce, which has increased the demand for improved planning and business analytics capabilities to model more complexity and effectively position inventory. At the same time, global economic conditions and competitive pressures are forcing businesses to reduce costs, decrease order cycle times and improve operating efficiencies. As a result, manufacturers, distributors and retailers are under pressure to better manage the supply chain as they seek to improve manufacturing efficiency and logistics operations while maintaining flexibility and responsiveness to changing market conditions and specific customer demands. These pressures are compounded by the rate of product churn, increasing globalization and complexity of the interactions among suppliers, manufacturers, distributors, retailers and consumers.

To compete in global markets, businesses must improve the performance of their supply chains, as well as the key functions, processes and technologies that make up an integrated supply chain network. Supply chain planning software solutions create a competitive advantage by modeling the time-phased need for products at a specific location in the business network and enables reducing the cost of goods sold, improving customer service, building global brands and increasing global supply chain visibility as companies move product to the market quicker. Our customers' goal is to provide the right product in the right place at the right time at a competitive price.

The supply chain planning process focuses on demand forecasting, supply and inventory optimization, global sourcing, distribution, transportation and manufacturing planning and scheduling, product lifecycle management (PLM), product sourcing and vendor compliance. Planning software is designed to increase revenues, improve forecast accuracy, optimize production scheduling, streamline global sourcing, reduce inventory costs, decrease order cycle times, reduce transportation costs, and improve customer service. The supply chain execution function addresses procuring, vendor compliance, manufacturing, warehousing, fulfilling orders and distributing products throughout the supply chain.

In order to effectively manage and coordinate supply chain activities, companies require integrated business planning (IBP), sales and operations planning (S&OP), supply chain planning, allocation, sourcing, supply chain execution, supply chain management and supply chain analytics software that provide enterprise systems for integrated communication, optimization and collaboration among the various constituents throughout the supply chain network. This enhanced collaboration synchronizes production plans with demand forecasts, thereby minimizing bottlenecks that lead to production delays, excess inventory and distribution network problems.

## **Business Segments**

### **Segment 1 Supply Chain Management**

#### **Logility, Inc.**

Logility, our wholly-owned subsidiary, was incorporated in 1996 and provides supply chain optimization and advanced retail planning solutions, as an integrated suite of sales and operations planning, demand optimization, inventory optimization, manufacturing planning and scheduling, supply optimization, merchandise and assortment planning and retail allocation. The Logility platform includes an industry leading integration layer to import/export data while leveraging artificial intelligence to validate and harmonize the data used in the applications (supply chain master data management).

Logility's solutions enable enterprises to increase their market visibility to build competitive advantages and increase profitability by reducing costs, increasing revenues, improving operational efficiencies and collaborating with

customers and suppliers to more effectively sense and respond to dynamic market conditions. Additionally, Logility's solutions streamline and automate the sales and operations planning (S&OP) process to create and assess business plans that profitably match supply with demand while synchronizing supply chain operations with strategic corporate goals.

Logility offers a multi-brand strategy to address unique market needs: (1) the *Logility Voyager Solutions* suite, which is marketed to companies with distribution-intensive supply chains seeking an optimized planning configured to the unique customer business requirements to drive competitive advantage, (2) the *Demand Solutions*<sup>®</sup> product line, which is marketed as a cloud platform designed for speed of implementation and efficiency on a Software-as-a-Solution (SaaS) platform, (3) New Generation Computing ( NGC )'s *Andromeda Supply Chain Management* (SCM) solution which provides cloud solutions for supply chain management, product lifecycle management, vendor quality vendor compliance and corporate social responsibility visibility for both retailers and manufacturers and, (4) *Halo*, which provides supply chain advanced analytics and business intelligence solutions.

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Logility derives revenues primarily from four sources: subscriptions, software licenses, services, and maintenance. Logility generally determines software license and SaaS fees based on the depth of functionality, number of production deployments, users and/or sites licensed. Services and other revenues consist primarily of fees from software implementation, training, consulting services associated with the implementation and support of Logility products. Logility bills for these services primarily under time and materials arrangements and recognizes revenues as it performs services. SaaS, hosting, managed services and maintenance agreements typically are for a one- to three-year term, commencing at the time of the initial product license. Logility generally bills maintenance fees annually in advance under agreements with terms of one to three years, and then recognizes the resulting revenues ratably over the term of the maintenance agreement. Deferred revenues represent advance payments or billings for subscriptions, software licenses, services and maintenance billed in advance of the time Logility recognizes the related revenues.

Logility's cost of revenues for licenses includes amortization of developed technology and capitalized computer software development costs, salaries and benefits along with VAR commissions. Costs for maintenance and services revenues include the cost of personnel to conduct implementations, customer support and consulting, and other personnel-related expenses as well as agent commission expenses related to maintenance revenues generated by the indirect sales channel.

Logility's selling expenses generally include the salaries and commissions it pays to its direct sales professionals, along with marketing, promotion, travel and associated costs. Logility's general and administrative expenses generally include the salaries and benefits it pays to executive, corporate and support personnel, as well as office rent, utilities, communications expenses, and various professional fees.

Demand Management, Inc., a wholly owned subsidiary of Logility, was incorporated in 1985. Demand Management is a leading global provider of supply chain planning software that is designed to be deployed in the cloud, however some customers may deploy on premise. These cloud-architected solutions for manufacturers and distributors are designed to increase forecast accuracy, improve customer service levels, and reduce overall inventory to maximize profits and lower costs. Completely reengineered to run on the latest cloud technology, the *Demand Solutions*<sup>®</sup> *DSX* supply chain planning solution offers functionality for demand planning, collaborative forecasting, inventory planning, advanced planning and scheduling (APS) and S&OP.

Demand Management has worked with supply chain professionals for over 30 years and has incorporated industry best practices and real-world business requirements into its software.

Demand Management markets and sells the *Demand Solutions*<sup>®</sup> *DSX* to brand owners, manufacturers and distributors seeking an efficient supply chain management system delivering a single platform designed for rapid deployment and a simplified operational experience.

### *Supply Chain and Retail Industry Background*

In response to omni-channel and the new Unified Commerce reality (consumers expectations to buy anywhere, deliver anywhere and return anywhere), increasing global competition, volatile market demand, shorter product life cycles, reduced lead times, and the consumers expectations for responsibly sourced materials; companies are continually seeking new ways to enhance the productivity, profitability and compliance of their supply chain and retail operations. Companies that effectively communicate, collaborate and integrate with their trading partners within the extended enterprise network or supply chain can realize significant competitive advantages in the form of lower costs, greater customer loyalty, reduced stock-outs, more efficient sourcing, reduced inventory levels, synchronized supply and demand, and increased revenue. Supply chain management refers to the process of managing the complex global

network of relationships that organizations maintain with external trading partners (customers, suppliers, manufacturers, distributors and retailers) to forecast, source, manufacture, store, allocate and deliver goods and services to the end customer. Supply chain management involves the activities related to merchandizing, sourcing, and supplying products or services (source, make, move, buy, store, and deliver) as well as the sales and marketing activities that influence the demand for goods and services, such as new product introductions, promotions, pricing and forecasting.

Today, several market trends are driving organizations to invest in supply chain and retail planning initiatives. Global economic conditions and competitive pressures are forcing companies to focus on customer desires while reducing costs, decreasing order cycle times and improving operating efficiencies along with omni-channel and Unified Commerce initiatives that are driving the need for more flexibility and better leverage of inventory to meet the needs of customers which include wholesale, branded retail and direct to consumer channels. As a result, manufacturers, brand owners, distributors and retailers are under pressure to better manage the supply chain as they seek to reduce costs, improve manufacturing efficiency and accelerate logistics operations while maintaining flexibility and responsiveness to changing market conditions and specific customer demands. These pressures are compounded by the increasing complexity and globalization of the interactions among suppliers, manufacturers, distributors, retailers and consumers.

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Companies are increasingly deploying supply chain optimization, supply chain management, sourcing and advanced retail planning applications to address their forecasting, supply chain planning, inventory optimization, allocation and distribution requirements. Supply chain optimization and retail planning functions involve the use of information and analysis to facilitate the on-time delivery of the right products to the correct location at the right time and at the optimal total cost. The planning process focuses on forecasting and demand management, inventory and supply optimization, distribution, manufacturing planning and scheduling, sales and operations planning, and retail financial planning and allocation. Supply chain management involves product life cycle management (PLM), sourcing and compliance to get the right products that meets consumer expectations to market on time. Planning software is designed to increase revenues, improve forecast accuracy, optimize manufacturing scheduling, better leverage inventory investments, decrease order cycle times, reduce transportation costs, and improve customer service. Customers are showing increasing interest in planning, sourcing and optimization software that is implemented and accessed in the cloud, known as SaaS.

The supply chain functions also address sourcing, fulfilling orders, distributing products, and delivery to customers throughout the global network. Within the supply chain execution function, organizations are increasing their focus on vendor compliance and sourcing linked with supply chain planning and other enterprise applications, in order to increase the efficient and effective fulfillment of customer orders in both the business-to-business and the business-to-consumer sectors. These multi-enterprise supply chains have heightened the need for robust supply chain master data management (MDM) to provide an accurate digital twin of the supply chain network, allowing enterprise businesses to plan strategically and quickly and accurately respond to dynamic market conditions to harness business opportunities and mitigate risk.

The March 28, 2018 Gartner Inc. report, *Forecast: Enterprise Application Software, Worldwide 2016-2022, 1Q18 Update*, predicts spending on Supply Chain Management software solutions will exceed \$15 billion by 2019 and \$20 billion by 2022. This represents a CAGR of 9.7% through 2022.

In order to effectively manage and coordinate supply chain activities, companies require demand planning, supply planning, inventory optimization, global sourcing product lifecycle management, compliance, retail merchandise planning and allocation, master data management and advanced analytics software that provides for integrated communication, optimization and collaboration among the various stakeholders throughout the supply chain network. This enhanced collaboration optimizes supply chain operations and minimizes bottlenecks that lead to production delays, excess inventory, storage constraints, distribution network problems and out of stock conditions.

We believe that traditional ERP systems alone do not provide the visibility, depth, flexibility or optimization techniques required to effectively meet the planning demands of today's intensely competitive and increasingly dynamic global business environment. Organizations are demanding supply chain solutions that are both modular and scalable to extend ERP functionality, fit the dynamic needs of their businesses, deploy quickly and deliver rapid time-to-benefit.

Additionally, business drivers for more sophisticated supply chain solutions are finding their way downstream. Issues that multi-billion dollar companies faced ten years ago are impacting even the lower end of the under-served SME market today. Increasingly, Logility's customers have to manage offshore sourcing and manufacturing requirements, which often extend lead times and time-to-market. With new, increasingly complex data management needs to monitor global supply networks and deal with the retailers' demand for accurate forecasts, greater supply visibility and higher in-stock performance, the SME market is outgrowing spreadsheets for supply chain planning and turning to proven supply and demand, inventory and replenishment management software, thus extending the addressable market for Logility's software offerings.

*Logility Products and Services*

Leveraging more than 45 years of planning solutions expertise, Logility has been an innovator in developing and deploying supply chain optimization and advanced retail planning solutions, with its first Internet-based collaborative planning software application implemented in 1996. Logility continues to invest and expand its award-winning solutions, which support the global planning, optimization, collaboration, S&OP as well as merchandise and assortment planning and allocations for retailers.

Logility's experience indicates that distribution-intensive industries face considerable competitive pressure, which is intensified by the high cost of inventory and distribution investments, dynamically changing consumer needs, and variability in overall supply chain performance. These companies need solutions that are capable of delivering significant financial benefits by quickly solving problems that arise in sourcing, manufacturing and distribution operations. Logility solutions are capable of helping these companies collaborate with their trading partners to improve customer service and optimize their sourcing, manufacturing, inventory, distribution and retail networks.

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Logility is a leading provider of collaborative supply chain optimization and advanced retail planning solutions that help small, midsize, large and Fortune 500 companies realize substantial bottom-line results. Logility provides two product suites, *Logility Voyager Solutions* and *Demand Solutions*<sup>®</sup>, marketed, sold and distributed through both direct and indirect sales channels. The *Logility Voyager Solutions* suite features advanced analytics capabilities and provides supply chain visibility; demand, inventory and replenishment planning; S&OP, integrated business planning (IBP), supply and inventory optimization; manufacturing planning and scheduling; merchandise and assortment planning and allocation. The *Demand Solutions*<sup>®</sup> *DSX* supply chain planning solution offers functionality for integrated business planning (IBP), sales and operations planning (S&OP), demand optimization, supply optimization, manufacturing optimization, collaboration, data visualization, and workflow optimization for global enterprises with manufacturing, distribution and retail operations who desire a rapid deployment and simplified operations to meet their supply chain needs.

Logility has licensed one or more modules of *Logility Voyager Solutions* or *Demand Solutions* to companies worldwide, including Abercrombie & Fitch, Ann Taylor, Avery Dennison Corporation, Berry Global, Big Lots!, Continental Mills, Fastenal Company, Ferguson Wholesale, Gategroup, Johnstone Supply, Mizuno USA, Mondelez International, New Belgium Brewing Company, Reckitt Benckiser, Siemens Medical Solutions Diagnostics, Trek Bicycle, Verizon Wireless, Urban Outfitters, Warnaco, and VF Corporation. Logility sells products and services through direct and indirect channels. Logility derived approximately 26% of its revenues in the fiscal year ended April 30, 2018 from international sales.

***Product Features: Logility Voyager Solutions***

*Logility Voyager Solutions* is a comprehensive cloud-architected planning software suite, which supports both SaaS subscription access as well as on-premise licensing options. It provides supply chain optimization including collaborative planning, forecasting and replenishment, multi-echelon inventory optimization, optimized supply sourcing, production management, merchandise and assortment planning, and allocation capabilities that are designed to increase revenues, reduce inventory, distribution and transportation costs, improve forecast accuracy, decrease order cycle times, manage global sourcing initiatives, optimize production planning and scheduling, streamline logistics operations and improve customer service. *Logility Voyager Solutions* incorporates advanced analytics to drive decision support for critical processes such as demand management, supply and inventory optimization, manufacturing planning and scheduling, retail planning and S&OP.

The *Logility Voyager Solutions* suite is modular and scalable to meet the requirements of global organizations involving tens of thousands of products with complex manufacturing or distribution networks. In addition, the *Logility Voyager Solutions* suite interfaces with a broad range of existing enterprise applications deployed on a variety of technical platforms.

Logility's customers can implement these modules individually, in combinations or as a comprehensive solution suite. The following summarizes key features of the *Logility Voyager Solutions* product suite:

***LOGILITY VOYAGER SOLUTIONS FOR SUPPLY CHAIN OPTIMIZATION AND ADVANCED RETAIL PLANNING***

These applications allow companies to plan, manage, optimize and measure their supply chain operations and strategic trading partner relationships for direct material procurement, production, logistics, retail and customer order fulfillment. *Logility Voyager Solutions* provides a performance-based architecture that allows companies to manage supply chain processes on an exception basis. Companies can proactively monitor, alert, measure and resolve critical supply chain events both within their own companies and throughout the extended value chain.

## SUPPLY CHAIN COLLABORATION

*Logility Voyager Solutions* accelerates S&OP, as well as strategic trading partner collaboration. *Logility Voyager Solutions* allows companies to accelerate and synchronize demand plans, sales input, direct material procurement, sourcing, fulfillment and financial goals to increase profitability and improve service. *Logility Voyager Solutions* enables companies to streamline and accelerate the entire S&OP process. Companies can more easily track key performance indicators, measure and compare multiple plan performance, optimize sales plans and automate data gathering.

*Logility Voyager Integrated Business Planning* visualizes, elevates and optimizes strategic and tactical plans for products, channels, resources and investment to achieve business goals, drive shareholder value and increase operational efficiencies.



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*Logility Voyager AdapLink* delivers tailored supply chain and enterprise integration leveraging predefined templates and incorporating artificial intelligence to validate and harmonize planning and related supply chain master data management with ERP systems such as SAP, Oracle, Microsoft and Infor.

### **DEMAND OPTIMIZATION**

*Logility Voyager Solutions* provides the visibility to significantly improve forecasting accuracy by creating comprehensive overviews of market demand, new product introductions, product phase-outs, short life cycle products, promotions and inventory policies. As a result, enterprises can build plans that are more closely attuned to the market.

*Voyager Demand Planning* helps reconcile differences between high-level business planning and detailed product forecasting. Aligning inventory with customer demand, this solution makes it easier to boost service levels, shorten cycle times and reduce inventory obsolescence.

*Voyager Life Cycle Planning* provides control to model each phase in a product's sunrise-to-sunset lifecycle including introduction, maturity, replacement, substitution and retirement. Using attribute-based modeling, Logility can improve the accuracy of new product introductions, short life cycle and phase-outs, which result in reduced stock-outs and lower obsolescence costs.

*Voyager Proportion Profile Planning* automates the process of detailed SKU-level forecasting using attributes like style, color and size for large numbers of SKUs. Time-phased profiles meet the market goals for product categories while increasing forecast accuracy at the granular level.

### **INVENTORY OPTIMIZATION**

*Logility Voyager Solutions* enables enterprises to set optimal inventory targets at each node of a multi-echelon manufacturing or distribution network to match strategic inventory goals and service levels in accordance with your business plan.

*Voyager Inventory Optimization* optimizes strategic and tactical inventory investments across multi-echelon manufacturing and distribution networks to meet business and service level objectives for complex supply chains with multiple stages of inventory.

*Logility Voyager Inventory Planning* allows enterprises to effectively measure the tradeoff of finished goods inventory investments and desired customer service levels. This solution dynamically sets time-phased inventory targets based on specific safety stock and order quantity rules.

### **SUPPLY OPTIMIZATION**

*Logility Voyager Solutions* optimizes material, inventory, production and distribution assets by synchronizing supply and demand. Optimized supply plans are generated based on manufacturing, storage, and transportation constraints as well as various sourcing, production and distribution options.

*Voyager Supply Planning* optimizes complex sourcing and production decisions to balance supply, manufacturing and distribution constraints based on corporate goals for maximizing profit or minimizing costs.

*Voyager Replenishment Planning* provides visibility of future customer demand, corresponding product and material requirements, and the actions needed to satisfy those demands.

*Voyager Manufacturing Planning and Scheduling* optimizes constraint-based manufacturing schedules and evaluates multiple scenarios to determine the optimal trade-off between manufacturing efficiencies, inventory investments and greenhouse gas emissions, providing lower costs and increased product availability.

*Voyager Advanced Planning and Scheduling* creates optimized schedules that consider machine, personnel, tooling and inventory constraints to drive shorter lead times and reliable product availability.

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### RETAIL OPTIMIZATION

*Voyager Merchandise Planning and Voyager Assortment Planning* create financial merchandise plans for total company and individual store to increase visibility and maintain open to buy plans, margin planning and unit ladder plans at various levels in the merchandise hierarchy.

*Voyager Allocation* optimizes short term unit sales and stock projections by store and facilitates the automatic replenishment based on daily sales data. Capabilities also include pre-pack optimization to accelerate the receipt and shipment of inventory to specific store locations.

#### *Product Features: Demand Solutions*

*Demand Solutions* proven, sophisticated supply chain software provides a smooth transition from spreadsheet management to robust supply chain planning, reporting, and tracking. It is simple to install and easy to use, yet able to support the entire Integrated Business Planning (IBP) process, which many supply chain experts endorse as a best practice for supply chain planning.

*Demand Solutions* offers SaaS and on-premises versions of its DSX product platform. Because both solutions are built on the same technology, customers have a clear migration path from one to the other as their needs change. Customers wishing to implement supply chain planning software without making a major up-front investment in software licensing fees can get started on the SaaS version of Demand Solutions DSX by simply paying a monthly subscription fee. The cloud delivery model relieves these customers of the need to buy and maintain their own hardware and the solution can easily scale to support their business growth. Once the solution goes live, stakeholders throughout their supply chain can simply log onto the software to access business data that is relevant to their role.

DSX was introduced in February 2010 and combines the DMI's 30-year history of supply chain experience with the latest technology to create a highly flexible supply chain planning solution. Built on a flexible architecture with configurability, scalability, performance, and security in mind, DSX is the culmination of more than two decades of customer-driven supply chain functionality. The DSX platform was architected to exploit and apply new technologies to provide best-in-class supply chain efficiencies.

*Demand Solutions* launched DSX SaaS in January 2014. This subscription version of the product platform is designed for manufacturers and distributors who want to streamline and enhance their supply chain planning processes without having to build and maintain their own IT infrastructure. It provides the full functionality of the on-premise version, but without requiring an up-front investment for software licenses and hardware. Rather than committing to a large purchase price, customers simply pay a predictable subscription fee.

*Demand Solutions* supports both Software-as-a-Service and Infrastructure-as-a-Service. The Company also supports both On-Demand Self Service and Broad Network Access. Because of *Demand Solutions* Web Services integration, customers can use DS-SaaS in conjunction with their system of record regardless of whether it is hosted, SaaS, or on-premise. All product platforms also incorporate social supply chain technology that enables supply chain partners around the world to collaborate in real time using intuitive, always-on social media tools.

The *Demand Solutions* application suite makes it easier to predict future demand and make informed decisions to optimize inventory turns, improve customer service levels, and increase profitability. *Demand Solutions* is a complete time-phased, multi-tiered demand planning and replenishment system and a proven platform for vendor-managed inventory. *Demand Solutions* helps manufacturers, wholesalers, and distributors exchange inventory information in real time, proactively manage demand rather than operate in reactive mode, and increase profitability.

*Demand Solutions Forecast Management* provides a powerful yet easy-to-use demand planning solution that fits virtually any industry and deploys quickly. The system offers significant flexibility and allows the user to select from among 26 algorithms the forecasting formula that best addresses each item's demand pattern to develop an accurate forecast of future demand.

*Demand Solutions Requirements Planning* incorporates collaborative planning capabilities to streamline supply activities from the production line through delivery. With instant analysis of the projected demand for unlimited items against current inventory, *Demand Solutions Requirements Planning* recommends the ideal inventory level for each shipping destination, providing valuable visibility up and down the supply chain.

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*Demand Solutions Sales & Operations Planning* automates and continually analyzes the monthly integrated business planning process, while also giving all supply chain stakeholders (internal and external to the organization) the social media tools to continue collaborating in between planning meetings. There are two annual business plans available for each of the sections of data (bookings, sales, production, inventory, backlog, and shipments): the Annual Plan and the Flexible Plan. Demand Solutions was one of the first S&OP tools on the market and the company has more than 17 years of S&OP implementation experience.

*Demand Solutions Advanced Planning and Scheduling* is a powerful and easy-to-use production scheduling solution that supports the process and discrete enterprise environment, and quickly produces accurate schedules that take into account machines, personnel, tooling, and inventory constraints. The *Demand Solutions Advanced Planning and Scheduling* software enables manufacturers to balance material, capacity, and shop floor schedules simultaneously to meet customer demand on-time at the lowest costs.

NGC is our wholly-owned subsidiary that provides software solutions for retailers and brand owners primarily in the fashion industries (i.e. apparel, footwear, sewn products and furniture). NGC provides functionality that allows customers to share information and quickly react to rapidly changing market trends, allowing them to accelerate lead times, reduce expenses, improve quality and maximize company revenue and profit.

NGC s provides a comprehensive application suite for retailers and brand owners with the Andromeda cloud platform, including solutions for 1) Product Lifecycle Management (PLM), 2) Supply Chain Management (SCM), 3) Enterprise Resource Planning (ERP), 4) Global Quality Control, 5) Vendor Compliance and 6) Shop Floor Control. Products can be implemented as part of the integrated suite or as stand-alone applications. It is offered in a variety of infrastructures including a multi-tenant SaaS, private cloud or on premise solution.

*Product Lifecycle Management.* NGC s Andromeda Cloud PLM system can be configured to the specific needs of retailers, fashion brands, and consumer products companies. NGC s Andromeda PLM offers productivity improvements in every area of development. It provides companies with real-time visibility into product data and shares information with Planning, Merchandising, Design, Costing, Sourcing, Manufacturing, and Logistics. NGC s Andromeda PLM allows companies to broadcast information throughout the enterprise to help optimize product lead-time and distribution, company revenue and profit. Andromeda PLM can be deployed as a stand-alone product development solution or an integrated application within the Andromeda cloud platform.

Using NGC Andromeda PLM, companies can:

Increase speed to market by managing workflows in a global, collaborative environment.

Enhance efficiency by using product development calendars to monitor on-time schedules and performance.

Raise gross margins by reducing the cost of goods sold through line item price negotiations, raw material commitments and capacity planning.

Improve product adoption rates by making decisions earlier in the product development cycle.

Reduce sampling costs by establishing product viability prior to issuing sample requests.

*Supply Chain Management.* NGC's Andromeda Supply Chain Management (SCM) solution enables the demand-driven, agile supply chain. Andromeda SCM helps companies meet the challenges of a rapidly changing manufacturing and distribution environment. With Andromeda SCM, production and logistics information is shared among all members of the extended global supply chain, including retailers, brands, vendors, manufacturers, suppliers, contractors, agents, brokers, carriers and freight forwarders.

Andromeda SCM and Global Sourcing platform allows companies to share information throughout the enterprise to optimize product lead-time and distribution, maximizing company revenue and profit. Andromeda SCM is user-configurable to meet customer requirements and integrates with all applications across the connected enterprise.

Andromeda SCM can be configured to meet customer requirements and integrates with all enterprise applications, allowing companies to:

Compress purchasing lead times by positioning raw materials for planned production cycles or series.

Improve order fulfillment rates by balancing production capacity and product demand.

Shrink markdowns and closeouts by applying postponement techniques to adjust WIP inventories.

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Cut unanticipated airfreight expenses by ensuring on-time deliveries from global production facilities.

Reduce product defects by managing on-site quality audits and making corrections based upon the results *Vendor Compliance*. NGC Andromeda Vendor Compliance solution provides a centralized system to help companies mitigate risk, enforce Corporate Social Responsibility (CSR) initiatives and ensure Good Manufacturing Practices. This cloud-based solution helps retailers and brand owners manage the ever-changing landscape of global Restricted Substances Lists (RSL) and enforce control and accountability for all suppliers, vendors, and other third parties involved in the design, manufacturing and delivery of their products to ensure compliance. By ensuring compliance companies can avoid costly litigation, reduce downstream risks and costs of non-compliance, and win market share by building and maintaining a positive public image.

NGC Andromeda Vendor Compliance allows companies to:

Centralize vendor information to improve global sourcing and vendor management processes.

Evaluate vendor performance with a Scorecard Index based upon on-time deliveries, completion rates and quality scores.

Manage vendor onboarding to streamline the process of adding new vendors.

Reduce the downstream risks and costs of non-compliance.

Avoid costly litigation while building and maintaining a positive public image.

*Quality Control*. NGC Andromeda Quality Control and mobile solution helps brand owners and retailers identify quality problems faster and reduce chargebacks. Using NGC Quality Control, companies streamline the quality process, schedule quality audits more efficiently, and report on audit results using NGC's Interactive Quality Tablet, which is far more efficient than manual processes. NGC's Quality Control includes multilingual and offline use to support your global vendors. Companies can easily access the necessary product and PO details needed to conduct the various audits from NGC's Andromeda PLM and Andromeda Supply Chain solutions, or it can integrate with a company's current solution(s).

NGC Andromeda Quality Control solution helps companies:

Reduce expenses related to quality by addressing quality problems on the factory floor, before products ship.

Increase QC auditor efficiency by scheduling audits based upon factory clusters and delivery schedules.

Access real-time analytics to identify problems sooner and reduce the risk of cancellations, chargebacks and returns.

Work online and/or offline to adapt to different factory environments.

*Halo Products and Services*

Halo's advanced analytics will be embedded into the Logility Voyager Solutions advanced analytics platform. These enriched analytics will leverage interactive visualization, machine learning algorithms, and artificial intelligence (AI) to transform both structured and unstructured data to accelerate business planning performance and proactively identify new business opportunities or mitigate risks. Customers on the DMI and NGC platforms will be able to add pre-packaged Halo advanced analytics capabilities to their subscriptions to drive quick insights and appropriate actions for their businesses. In addition, Logility will continue to offer Halo advanced analytics embedded in Logility Voyager Solutions as well as standalone to complement other enterprise systems.

**Segment 2 IT Consulting**

**The Proven Method, Inc.**

*The Proven Method, Inc.*, our wholly-owned subsidiary, is a technology services firm that specializes in assisting a diverse customer base to solve business issues with realistic and effective technology solutions. The Proven Method maintains a full-time staff of project management, business consultants and technical specialists possessing a wide range of technical skills, and business applications and industry experience.



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We believe a key differentiator of The Proven Method is its ability to offer flexible solutions to customers based on current economic conditions. We provide solutions based on how our customers are running their businesses, thereby meeting their specific needs. Customers today efficiently manage their technology investments by implementing lower cost technologies to provide a direct and immediate revenue benefit. The Proven Method helps our customers drive revenue and targets customer satisfaction through their awareness of the best technologies available.

The solutions we provide can range from web and mobile applications on multiple platforms to complex Business Intelligence applications and solutions. Business Intelligence consists of the development and implementation of a reporting process for dealing with very large volumes of data and multiple business entities/components. Our customers are Internet savvy and knowledgeable in wireless solutions, social networking and channeling implementations, server and desktop virtualization, and deployment of interactive applications. They rely on The Proven Method to provide a fast return on investment, and our customers' success in turn enhances brand awareness of The Proven Method among other customers and potential customers.

The cross-industry and multiple resource skills The Proven Method has acquired since 1995 enables us to provide services to customers of virtually any type or size. The Proven Method customers benefit from our services in several different ways:

***Professional Services / Product Management / Project Management*** Some rely on The Proven Method to serve in lieu of an in-house applications development group. The Proven Method provides these firms with the management, business and technical experience necessary to run an entire IT organization. Other companies will typically outsource complete application development projects to The Proven Method, particularly when their internal project management and technical personnel face a combination of critical timing and heavy backlog.

***Staff Augmentation*** Other customers call on The Proven Method to provide supplemental management and technical resources for a skill or technical discipline they may not currently possess or if they simply need more of a particular set of skills. The Proven Method enables its customers to leverage their employees who have multiple skills to cover more job functions with fewer resources. Recently, The Proven Method has recruited and staffed very specialized technical resources for its customers to support Big Data, Machine Learning /Artificial Intelligence and Cloud technologies.

***CCNS Division*** We specialize in the following resources in our CCNS Division. The acronym CCNS stands for **Cloud, Collaboration, Network & Security**.

Cloud AWS/Azure Architects, App & Infrastructure Migration Specialists

Data Center Server, Storage, Virtualization Specialists

Network WAN, LAN, WLAN Router, Switch Engineers

Collaboration Voice, Conferencing, Collab App, Video Specialists

Security Private/Hybrid/Public Platform and Systems Architects

Project and Program Managers

***Social Media and Analytic Marketing*** Customers now have the opportunity to understand the analytical results of the activities associated with the social media channels, including the development of marketing plans and

recommendations for optimization based on industry needs and best practices. Services can be provided to implement and manage social media programs as well as train prospective and present customers.

The Proven Method has worked with customers such as: Aon, Aarons Rents, IBM, UPS, Norfolk Southern, Xerox, SunTrust Bank, Coca-Cola, Dycom, Equifax, Kubota Manufacturing of North America, The Home Depot, AT&T, State of Georgia, CompuCom, Zep Inc, Chick-fil-A, Global Payments, Verizon, Catlin Group Ltd, Federal Home Loan Bank of Atlanta, Forsythe Technology, Fulton Paper, AutoTrader.com, Nalco Chemical, Georgia Tech Research Institute, NCR, Fidelity Bank, Barry Wehmiller, Manhattan Associates, Perspecta and numerous other customers throughout the United States.

### **Segment 3 Other**

The Other segment consists of (i) American Software ERP, which provides purchasing and materials management, customer order processing, financial, e-commerce and traditional manufacturing solutions, and (ii) unallocated corporate overhead expenses.

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### **American Software ERP**

Our enterprise solutions are the culmination of more than four decades of customer-driven supply chain functionality providing comprehensive global solutions that link critical functions throughout an enterprise. All of our enterprise solutions support our e-business functions.

The *e-Intelliprise* solution is a web-based ERP system that a customer can run over the Internet, or on their intranet or extranet utilizing the IBM iSeries servers. This allows functions within the ERP system to be easily deployed over the Internet using a dynamic role-based web page capability. Customers can support multiple e-businesses and traditional businesses with full front-to-back office integration, which is critical to successful fulfillment and seamless processing and reporting throughout the enterprise. The *e-Intelliprise* solution is a global system, capable of operating in multiple languages, financial and logistics organizations. *e-Intelliprise* was developed on a flexible enterprise architecture that enables centralized management of enterprise wide processes while allowing delegation of other business process decisions to other levels of the organization.

Our *e-applications* are solutions for conducting business on the Internet that can web-enable specific business functions through integration with existing ERP or legacy systems. Currently, e-applications are available for the following applications: *e-procurement*, *e-store*, *e-expenses*, *e-forms*, *Purchase Order Tracking and Vendor Collaboration*, *Requisition Tracking*, *Shipment Tracking*, *e-process management* and *e-connect*, a seamless, XML-enabled data exchange. We believe that these products represent a cost-effective solution for customers with e-business requirements or simply looking to improve efficiencies through updating and streamlining of business processes.

Our product line consists of software and services that operate on three strategic computer platforms: (1) IBM System z Mainframe or compatible, (2) IBM iSeries, and (3) Intel-based servers and clients that operate Windows.

See Note 9 to the Consolidated Financial Statements for further business segment information.

### **Customers**

We primarily target businesses in the retail, apparel and footwear, consumer packaged goods, chemicals, oil and gas, life sciences, telecommunications, consumer electronics, industrial products and other manufacturing industries. A sample of companies that have purchased one or more of our products or services during the past two fiscal years is as follows:

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<b><u>Consumer Goods</u></b>	<b><u>Chemicals, Oil &amp; Gas, Life Sciences</u></b>	<b><u>Retail &amp; Apparel (cont.)</u></b>	<b><u>Manufacturing and Others</u></b>
3M Australia	Allnex	G & K Services	Actron Air
AdvancePierre Foods	BERICAP Holding GMBH	Godiva Chocolatier	Amcro Rigid Plastics USA, LLC
Antartico Comercializadora SA de CV	Berry Global	Goodwill Industries	American Bath Group
Ashley Furniture	BP Singapore Pte. Limited	GTM Sportswear	Ancestry.com Inc.
Avery Dennison Corporation	Bracco Imaging S.p.A.	Hunkemoller	Avent, Inc
Bed Bath & Beyond Inc.	Chamberlain Group	International BV	Briggs & Stratton
BodyBuilding.com	CooperVision	International Uniform, Inc .	Janouras Custom Design, Ltd.
Boise Paper Holdings, LLC	Croda Europe Limited	Jaya Apparel, LLC	Busch- Transou, L.C.
Caribou Coffee Company	Dow Chemical Company	Jenny Yoo Collections	Cintas Corporation
Carrie Francis	EGO Pharmaceuticals, PTY LTD	Jerry Leigh Entertainment	Corning Cable Systems
ClearGage, LLC	Genzyme Diagnostics	Jockey International	Cycles Lambert, Inc.
Cliff Bar & Company	Infineum	John Paul Richard	Dassault Falcon Jet
Cott Beverages Limited	Kremers Urban Pharmaceuticals	Joseph Ribkoff	Ficosota Ltd., Ital Food S.A.
Dometic Group AB	Norbrook Laboratories	Jump Design Group, Inc.	Follett Corporation
Electrolux S.E.A. Pte Ltd	Norgine	Just Fabulous	Gardner- White Furniture
Ergobaby	Novartis Pharma Services	Lacrosse Footwear	Henley Enterprises, Inc.
Founders Brewing Company	Omega Pharma International NV	Land n Sea	Hilco
Freddy Hirsch	OneMed Holdings	Landau Uniform	Husqvarna AB
Glen Raven, Inc.	Sandoz	Legendary Whitetails	Hy- Ko Products
Griffith Laboratories	Scott Specialties, Inc .	Liz Claiborne	Interlock USA, Inc.
Worldwide	Sigma- Aldrich Corporation	Lord Daniel	Intertape Polymer Group
Hamilton Beach	Smith & Nephew	Sportswear	It Works Marketing Inc.
Hancocks Wine, Spirits and Beer	Sunovion Pharmaceuticals, Inc .	Lucky Zone	Johnson Controls
Hostess Brands	Thermo Fisher Scientific	Manhattan Beachwear, LLC	KALE HAVACILIK Sanayi AS
Huhtamaki		Men	