

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended December 31, 2017.

OR

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

For the Transition Period from _____ to _____
Commission file number 001-36360



AMBER ROAD, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

One Meadowlands Plaza, East Rutherford, New Jersey

(Address of principal executive offices)

22-2590301

(I.R.S. Employer Identification Number)

07073

(Zip Code)

Registrant's telephone number, including area code: **(201) 935-8588**

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

Title of each class

Common Stock, \$0.001 par value

Name of exchange on which registered

New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Securities Exchange Act: None

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

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

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

Indicate by 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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files. Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) 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, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company," in Rule 12b-2 of the Exchange Act.

Large accelerated filer

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

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 Act) Yes No

The aggregate market value of common stock held by non-affiliates of the registrant as of June 30, 2017 based upon the closing sales price for the registrant's common stock as reported on the New York Stock Exchange on that date, was approximately \$148,552,071. Shares of common stock held by each executive officer, director and 5% shareholder have been excluded, as such persons may be deemed affiliates.

As of February 28, 2018, there were 27,320,956 shares of the registrant's common stock, par value \$0.001, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Parts of the registrant's Proxy Statement for the Registrant's 2018 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K.

AMBER ROAD, INC.
ANNUAL REPORT ON FORM 10-K
For the Year Ended December 31, 2017

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Amber Road, the Amber Road logo, Global Knowledge, Enterprise Technology Framework and other trademarks of Amber Road appearing in this report on Form 10-K are the property of Amber Road. All other trademarks, service marks and trade names in this report on Form 10-K are the property of their respective owners. We have omitted the ® and ™ designations, as applicable, for the trademarks used in this report on Form 10-K.

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements are often identified by the use of words such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “project,” “will,” “would” or the negative or plural of these words or similar expressions or variations. Such forward-looking statements are subject to a number of risks, uncertainties, assumptions and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified herein, including those discussed in the section titled “Risk Factors”, set forth in Part I, Item 1A of this Annual Report on Form 10-K and in our other SEC filings. You should not rely upon forward-looking statements as predictions of future events. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements. As used in this report, the terms "Amber Road", "we", "us", and "our" mean Amber Road, Inc. and its subsidiaries unless the context indicates otherwise.

PART I

Item I. Business

Company Overview

As a leading provider of cloud-based global trade management (GTM) solutions, our mission is to improve the way companies manage their international supply chains and conduct global trade. We deliver our GTM solution using a Software-as-a-Service (SaaS) model and leverage a highly flexible technology framework to quickly and efficiently meet our customers' unique requirements around the world. Our solution automates the global supply chain across sourcing, logistics, cross-border trade, and regulatory compliance activities to dramatically improve operating efficiencies and financial performance. This includes:

- collaborating with suppliers on development, sourcing and quality assurance
- executing import and export compliance checks and generating international shipping documentation
- booking international carriers and tracking goods as they move around the world
- minimizing the associated duties through use of preferential trade agreements and foreign trade zones

Our GTM solution combines enterprise-class software, trade content sourced from government agencies and transportation providers in 147 countries, and a global supply chain network connecting our customers with their trading partners, including suppliers, freight forwarders, customs brokers and transportation carriers. By automating more GTM processes, we enable our customers to enjoy significantly lower supply chain costs compared to manual processes and legacy systems.

We address the growing complexity of the global trade landscape by automating GTM functions to minimize import and export costs, optimize transportation, track shipments within a supply chain, and automate compliance with regulations and free trade agreements. Without this cloud-based automation, it would be difficult to effectively enable collaboration among the large number of trading partners involved in a global supply chain.

Our GTM solution integrates Global Knowledge, a vast library of regulations and other content that we transform into a proprietary knowledgebase that enables our customers to automate GTM functions. Global Knowledge includes import and export regulations, shipping documents, preferential duties and taxes, specifications for free trade agreements, transportation rates, sailing schedules, embargoed country and restricted party lists, and harmonized tariff codes that identify goods based on standardized classifications, all sourced directly from government agencies and transportation carriers.

Our GTM solution drives value to our customers through faster and more predictable delivery times, decreased labor, reduced in-transit inventories, and reduced international trading costs such as brokerage fees, logistics fees, transportation costs and customs duties. We sell our GTM solution to many of the largest enterprises in the world, representing diversified industry verticals including Chemical/Pharmaceutical, High Technology/Electronics, Industrial/Manufacturing, Logistics, Oil & Gas, and Retail/Apparel.

Customers pay us subscription fees and implementation service fees for the use of our solutions under agreements that typically have an initial term of three to five years, with an average initial term of approximately 3.8 years for enterprise customers (customers with annual revenues that we believe are greater than \$1 billion) and 3.5 years for mid-market customers (customers with annual revenues that we believe are less than \$1 billion). Our revenue for the years ended December 31, 2017, 2016, and 2015 was \$79.1 million, \$73.2 million and \$67.1 million, respectively. We also had net losses of \$13.0 million, \$18.7 million, and \$28.1 million for the years ended December 31, 2017, 2016, and 2015, respectively.

Industry Overview

The Origin and Rapid Growth of Global Trade Automation

Most global trade functions historically have been handled manually by outsourced service providers and internal specialists. Early global trade automation software focused narrowly on discrete problems such as restricted party screening and shipment tracking. These software programs were not integrated with each other or existing enterprise software and were weak in functionality. At the same time, demand for global trade automation has increased rapidly over the past few years, fueled by a combination of macro and microeconomic trends. We believe these trends will continue to support the rapid increase of global trade and demand for GTM solutions.

Macroeconomic Drivers of Growth. We believe five macroeconomic trends are expanding the GTM automation marketplace:

- **Growth in Imports from Low Cost Country Sourcing**—Companies of all sizes and nearly every industry are pursuing low cost country sourcing strategies with suppliers in locations such as China, India and Southeast Asia.
- **Rising Demand in Global and Emerging Markets**—Global trade volumes are being driven by higher exports as producers seek new markets to accelerate their growth. As the wealth of emerging market nations continues to rise, these countries have become significant sales opportunities for U.S. and European companies.
- **Increasing Border Security and Surveillance**—Since 9/11, governments have imposed additional border security regulations that affect global trade. These additional security and automation requirements are driving additional demand for GTM automation.
- **Increasing Government Regulation**—Government regulatory agencies have also promulgated additional regulations aimed at protecting consumers, spurring local economic growth, and boosting revenues from duties and taxes. Customs agencies around the world supervise cross-border trade by enforcing these regulations. All of these requirements increase the need for GTM automation.
- **Proliferating Free Trade Agreements**—Governments are entering into multilateral free trade agreements to promote trade. For example, under the North American Free Trade Agreement (NAFTA) among the United States, Mexico and Canada, companies are able to import goods from partner countries with dramatically lower import duties. Complying with these requirements without automation can be difficult and expensive, and the challenge is not limited to NAFTA. There are more than 500 free and preferential trade agreements around the globe, each presenting myriad rules that governments modify continuously.

Microeconomic Drivers of Growth. To compete effectively, organizations must increase inventory turns, reduce cash-to-cash cycles, improve customer service, and reduce product cost after accounting for expenses such as transportation, brokerage fees, logistics fees, and customs duties, which we refer to as landed cost. Many firms that attempt to exploit low cost country sourcing fail to capture any benefits from their efforts. We believe this is due in part to both a lack of automation and skilled GTM practitioners. Due to long delivery times associated with shifting supply bases overseas, importers experience ballooning inventory levels, leading to higher costs. These problems increase the urgency of making the complex international supply chain work through GTM automation.

The Complexity of Global Trade Automation

As compared to domestic distribution management, global trade management introduces the complexities of multiple languages, time zones, currencies, and modes of transport. Further, there can be more than a dozen parties involved in a single international shipment. The laws governing global trade are numerous, highly complex and ever-changing. Organizations must review and act on a heavy volume of regulatory information, which is often published on paper in varying formats. These challenges are difficult to master without a solution that integrates up-to-date regulatory content with rules-based transactional software connected to each supply chain party.

The complexity of global trade is compounded by each global trade participant's unique position in the field. No two participants have identical needs, and automating global trade requires managing numerous combinations of functional requirements across a trading partner network, with each partner potentially using varied enterprise software. Successful GTM solutions must be flexible and adapt to changing regulations and business requirements without an ongoing need for significant professional services.

Shortcomings of Traditional Approaches to GTM

Even in some of the world's largest organizations, traditional manual approaches to global trade are still prevalent. Legacy approaches often use a combination of paper, facsimile and telephone based processes, spreadsheets, and other ineffective home-grown solutions that often create silos of unmanageable data. Where better automation exists, it is often based on applications developed using a legacy software architecture that is difficult to maintain and upgrade, and that delivers poor performance limited by a one-size-fits-all design. These applications may provide only basic transactional functionality while lacking the ability to perform deep trend analyses that provide important business insights and help management drive operational improvements.

Many legacy applications were deployed gradually, sourced from a variety of vendors in response to separately identified operating inefficiencies and rolled out as annual budget cycles permitted. They require significant ongoing professional services to maintain, and the difficulty of upgrading and maintaining them leads to an inherent lack of reliability in the face of constantly changing government regulations and input formats from supply chain partners. This software may also keep end users and support staff beholden to a patchwork of supporting legacy software that exists as part of an ecosystem that further frustrates modernization.

The SaaS Approach to GTM

Capturing the full value of information and attaining the network effects possible in our global economy requires modern software that can exchange information with varied systems in a flexible manner while presenting timely and actionable information to end users. A SaaS model allows organizations to replace patchworks of legacy products and/or manual processes with a comprehensive solution suite that automates trade from the time a purchase order is placed with an overseas supplier to the time a shipment is delivered. The SaaS alternative permits customers to outsource their GTM automation needs.

Our Growth Strategy

We intend to capitalize on investments made to expand our role as a provider of a market-leading GTM solution by bringing our existing solution to new customers and new markets, and by expanding our solution to offer the most comprehensive and innovative features in the GTM marketplace. Key elements of our growth strategy include our plans to:

Invest in Sales. We will focus our expanded sales efforts on acquiring new customers and, to a lesser extent, selling more modules to our existing customers.

Invest in Marketing. We plan to maintain our marketing focus on lead generation, in particular using focused marketing programs to jump-start new territories. We also expect to devote additional resources to solidify our brand as a leading GTM solution provider.

International Expansion. Currently, we sell our solution predominantly in the United States, regions of Europe and China, where we target our marketing efforts and maintain dedicated inside and outside sales persons. Because our solution has a global appeal, we believe that there are significant opportunities in the rest of the world. Although our customers are headquartered primarily in the United States, Europe and Asia, we have deployed our solution to their users in more than 80 countries, giving us a foothold in many countries where we currently have no sales offices. We intend to invest in new sales and support offices in these regions, which will build on our pre-existing user base.

Expand Our Solution. We have a history of bringing an innovative solution to market as demonstrated by our robust Global Knowledge library and flexible, proprietary Enterprise Technology Framework. We will continue to leverage our solution team to expand the depth and breadth of our solution in response to customer requests and the evolving nature of global trade. For example, we may expand our solution to automate working with free trade zones, which are areas where goods may be imported, transformed, and then exported without the need to pay customs duties. We also intend to maintain our market leadership in trade content.

Execute Strategic Acquisitions. Strategic acquisitions represent an opportunity for us to augment our solution capabilities and sales team. The GTM solutions market is fragmented, and we believe some participants may have best-of-breed solutions to specific problems, particularly those created by the unique trading requirements of foreign countries. We may acquire those participants to expand our solution. Further, developing an effective sales force in foreign markets requires a nuanced understanding of local business customs. We may, for example, choose to acquire local GTM software companies in order to obtain sales teams with a track record of success in their markets. We currently have no agreements or understandings to acquire any such companies.

Our Solution Modules and Services

We implement our solution as modules, selling them individually or as a suite, depending on our customers' needs. Materially all of our modules rely on our trade content, and our professional services team configures them to address the following mission-critical GTM business challenges:

Import Management. Our import management module assists customers with landed cost calculations to determine the lowest-cost country from which to source goods, and streamlines legal compliance, reporting of product classifications, admissibility review, customs entry management and security filings. Key import management capabilities are:

- Global master record modeling
- Country sourcing
- Restricted party screening
- Cost calculation
- Document management
- Reporting

Some benefits related to import management include reduced brokerage fees, reduced import delays, improved import cycle times, improved classification efficiency, reduced or eliminated post entry reviews and improved import audit.

Export Management. Our export management module allows exporters to adopt best practices on a global level, gain a centralized view of export compliance and automate key export processes. Key export management capabilities are:

- Partner and product modeling
- Product classification
- Restricted party screening
- Export compliance
- License tracking
- Document management
- Reporting

Some benefits related to export management include reduced freight forwarder fees, improved classification efficiency, improved restricted party screening efficiency, improved licensing efficiency, improved shipment processing, improved export audit processes and avoidance of fines and penalties, including loss of export privileges.

China Trade Management. Our China Trade Management (CTM) solution enables companies to automate import and export processes for China operations. This allows companies to meet China compliance requirements for General and Processing Trade, reduce costs and improve supply chain efficiencies. The CTM module automates the process for companies that import components and materials into China for manufacturing and then export finished goods, without paying import duties and value-added taxes. Key CTM capabilities are:

- Processing trade
- General trade
- Free trade zone

Some benefits related to CTM management include eliminating the manual effort to manage China workbooks and customs reporting, eliminating payment of import duties and value-added taxes under Processing Trade regime, implementing better reporting with Chinese customs authorities, and responding quickly to Chinese regulatory changes.

Global Logistics Management. Our global logistics management module enhances both global trade management and supply chain visibility. Global trade management solutions optimize the movement of goods by helping to manage transportation contracts, evaluate alternative routes, select carriers and oversee logistics operations. Supply chain visibility solutions connect importers and exporters with their overseas suppliers, logistics providers, brokers and carriers to enable them to track and monitor goods in near real time as they move through the global supply chain. Key global logistics management capabilities are:

- Contract and rate management
- Carrier selection and booking
- Freight audit
- Purchase order management
- Alerts and notifications
- Trading partner network
- Data quality management
- Reporting

Some benefits related to global logistics management include improved transportation procurement, improved carrier selection, improved booking efficiency, reduced transportation costs, reduced in-transit and on-hand inventory, reduced order cycle times, and improved customer service.

Trade Agreement Management. Our trade agreement management module automates free trade agreement administration. Key trade agreement management capabilities are:

- Rules of origin management
- Trade agreement content packs
- Bills of material modeling
- Bills of material qualification
- Certificate management
- Certificate requests
- Reporting

Some benefits related to trade agreement management include improved supplier solicitation efficiency, improved qualification and processing efficiency, improved customer service and price management for exports and reduced customs duties.

Supply Chain Collaboration. In March 2015, we acquired ecVision (International) Inc. (ecVision), a cloud-based provider of global sourcing and collaborative supply chain solutions for brand-focused companies. ecVision offers a cloud-based supply chain collaboration (SCC) platform that optimizes product lifecycle and supply chain processes. ecVision's products help its customers effectively manage their relationships with product suppliers, raw material vendors, product testing and social compliance audit firms, and global logistics companies. ecVision's solution currently focuses on the following four primary business areas:

- Vendor and Production Management - allows global brands to efficiently on-board new suppliers, monitor capacity, manage purchase orders and raw material orders, as well as monitor production status.
- Material and Product Management - helps brands, their suppliers and tier-two material suppliers to collaborate and deliver more innovative products, by efficiently managing the sampling and testing processes, planning, forecasting and reserving raw materials and sourcing finished good production.
- Risk and Quality Management - helps to ensure that what is produced meets international regulatory testing requirements, brand specifications and social compliance standards with comprehensive functionality to manage component and product testing, auditing and finished goods quality inspections.
- Shipment and Logistics Management - provides a platform to document, manage and monitor all logistics activities from in-factory carton label creation, advanced shipping notice generation, carrier booking and tracking, and invoicing through receipt into the warehouse.

Professional Services. Our global professional services team encompasses subject matter experts, information technology professionals and project managers who implement our solution. These consultants have years of experience implementing enterprise solutions, and expertise with a wide range of customers, industries and industry-standard applications and integration technologies. Our professional services cover four areas:

- *Assessment*—We review customers' business processes on a project and an ongoing basis to discover opportunities for automation.
- *Implementation*—We deploy our solution with a proven methodology focused on best practices and create thorough documentation to facilitate training, support and upgrades.
- *Education and Training*—We train users to ensure proper compliance and efficiency, including sessions for end users, solution administrators and technical operators.
- *Maintenance and Support*—We provide production support 24 hours per day, 365 days per year for any critical issues, and regular solution upgrades.

We provide our professional services pursuant to a professional service agreement and a related statement of work. In most cases, we bill professional services on a time and expense basis. The length of time and cost to implement our GTM solution depends on many factors, including the number of modules being implemented, the scope of the deployment, the complexity of our customer's environment and the availability of customer resources. For the years ended December 31, 2017, 2016, and 2015, revenue from professional services accounted for 26%, 27% and 30%, respectively, of our total revenue, with the remainder representing subscription revenue.

Customers

In 2017, 2016, and 2015, our solution served 807, 752 and 673 customers, respectively. Of our 807 customers in 2017, 291 were multi-national enterprise customers with annual revenues that we believe are greater than \$1 billion, and 516 were mid-market customers, with annual revenues that we believe are less than \$1 billion. The average term of our current customers' initial agreement with us is approximately 3.8 and 3.5 years for our enterprise and mid-market customers, respectively. In 2017, our average revenue from enterprise customers was \$238,000 and our average revenue from mid-market customers was \$19,000. Our customers are headquartered primarily in the United States, Europe and China.

Our customers typically pay us an annual subscription fee at the start of each contract year. The subscription fee is fixed for the term of the agreement, and typically is based on expected transaction volumes, such as the number of annual shipments or import entries. To the extent that a customer exceeds contracted maximum transaction volumes, they incur per transaction fees. This pricing structure allows us to sell more affordable, entry-level configurations to customers with fewer needs, as well as sophisticated configurations to enterprise customers with greater needs. The subscription fees typically begin within the first few months following contract execution, whether or not we have completed the solution's implementation, and our subscription agreements may typically only be terminated for cause. Generally, we charge for professional services to implement our solution on a time and materials basis.

For the years ended December 31, 2017, 2016, and 2015, our annualized recurring revenue retention was 103%, 101% and 98%, respectively. We calculate our annualized recurring revenue retention rate by comparing, for a given quarter, subscription revenue for all customers in the corresponding quarter of the prior year to the subscription revenue from those same customers in the given quarter and calculating the average of the four quarters for the stated year. For the years ended

December 31, 2017, 2016, and 2015, revenue from international customers accounted for 24%, 21%, and 17% of total revenue, respectively.

Competition

The market for GTM automation solutions is competitive, rapidly evolving, and subject to shifts in technology and customer needs. While we do not believe that any specific competitor offers the breadth of capabilities that we do, we compete with three types of organizations:

Enterprise Resource Planning Vendors. We compete with the large, enterprise resource planning software companies such as Oracle Corporation and SAP AG. These companies are extremely well financed, have prominent brands, and have extensive coverage of the enterprise software market across business functions. In many cases, they have entrenched relationships with the IT departments of our current and prospective customers. We compete with these organizations by:

- providing greater subject matter expertise throughout the sales cycle
- demonstrating our superior solution capabilities and breadth
- providing a lower total cost of ownership by delivering a complete solution, including trade content and a global trading partner network, as compared to acquiring these capabilities from separate vendors
- aligning our interests with those of our customers by charging them a recurring subscription fee for recurring value, rather than a large, up-front licensing fee
- providing quick time to value by deploying under a SaaS model

GTM Vendors. We also compete with focused GTM vendors. These vendors provide one or more functions including import management, export management, trade content, supply chain visibility, or free trade agreement management. They generally do not have the solution breadth that we provide, but may have superior capabilities in the functions they provide and they may have lower pricing than we do. We compete with these organizations by:

- demonstrating our superior solution breadth and selling our GTM suite
- delivering a complete offering, that provides a lower total cost of ownership than acquiring all needed capabilities from separate vendors

Service Providers. To a much lesser extent, we compete with service firms including large freight forwarders. This occurs when companies outsource a particular GTM function such as license management or classification to service firms who generally perform these functions manually. In many cases, we work with these service providers rather than competing with them. For example, they may provide their services by working with our GTM solution on behalf of mutual customers. We compete with these organizations by demonstrating the superior return on investment attainable through higher levels of automation compared to the service providers' more manual approach.

Sales and Marketing

Our sales and marketing team consisted of 73 professionals as of December 31, 2017. The team primarily focuses on lead generation for our sales force, and also dedicates an increasing amount of time to fostering recognition of the Amber Road GTM brand. Our marketing activities consist of email campaigns, search engine optimization and marketing, webinars, seminars and sponsored campaigns with trade journals. We focus heavily on marketing analytics enabled by automated tools that allow us to track prospects and funnel them from initial contact to qualified lead and finally to our sales force.

We sell our solution through a direct sales force. We have outside sales teams comprised of sales directors and technical specialists who sell to enterprise customers. We also employ inside sales persons and technical specialists who target mid-market companies.

Research and Development

Our success to date, and our growth strategy for the future, rely on advancing the state of the art of GTM automation. As of December 31, 2017, our research and development team consisted of 249 employees dedicated to the development of our GTM solution. The majority of our engineers reside in Bangalore, India and many of them have domain expertise in the GTM field. Accordingly, we will continue to devote resources to help us to remain a leader in global trade management. For the years ended December 31, 2017, 2016, and 2015, our total research and development expenses were \$14.9 million, \$16.8 million and \$16.4 million, respectively.

Technology

Our solution is based on our Enterprise Technology Framework, a proprietary technology developed by our employees. Our Enterprise Technology Framework includes application programming interfaces, web-based development tools, run-time engines that execute meta-data components, and a comprehensive set of administrative features that combine to provide a unified technology architecture and user experience.

Our Enterprise Technology Framework is capable of delivering our solution over the Internet using a SaaS model, and can be configured as a multi-tenant environment that permits different customers to share a common operating environment while protecting them from unauthorized access to each other's applications and data. For customers who require physical segregation of their applications and data from those of other customers, our Enterprise Technology Framework is also capable of delivering our solution in a separate instance configuration through dedicated servers in our data center or on the customer's premises. Because we primarily deliver our solution over the Internet using a SaaS model, we, like other SaaS providers, are subject to cyber-attack. As such, we have invested, and continue to invest, in critical information security infrastructure and resources.

Regardless of the deployment method, our customers retain the ability to uniquely configure our solution and determine how data is shared or segregated among their operating groups, with the potential to provide each operating group a customized view of our solution optimized for the business processes they execute.

The most important capability of our Enterprise Technology Framework to our customers, and the most difficult technical problem that it solves, is permitting our professional services organization to configure our solution during implementation in a manner that separates customer-specific configurations from our core application, allowing our customers to upgrade to new versions of our solution while retaining their unique business settings and avoiding the need to re-implement these configurations.

Data Center Operations

We host our GTM, SCC and CTM solutions for our cloud delivery model customers in appropriately located and highly secure co-location facilities. These facilities are protected by state-of-the-art physical security features, heating and cooling systems, redundant, uninterruptible power systems and backup generators. Each is staffed and designed to be operational 24 hours per day, 365 days per year. Our equipment is located in a portion of the data center that is dedicated to our use and securely separated from other tenants of the data center.

We own or lease all of the equipment that provides our solution, and our employees manage all of the hardware, software, databases, data backup, security and local network hardware necessary to provide our solution. Our network infrastructure features redundant load balanced Internet connections provided by diverse internet service providers. We perform data backups in accordance with industry custom, including real time database backups. We maintain backup co-location facilities to provide continuity of services in case of a catastrophe affecting our primary co-location facility. We conduct disaster recovery tests annually and are capable of bringing our solution online following catastrophe scenarios.

Multiple layers of security protect our solution from malicious external activity (cyber-attacks). We monitor the integrity and availability of our solution in real time and hire third party consultants to audit the security of our information technology systems quarterly, and conduct application and network vulnerability testing annually. We utilize licensed and certified third parties to review our operating controls and information systems. We maintain certifications through independent audit reviews for SSAE 16, SOC 1 Type II, and SOC 2 for the "Security", "Confidentiality", "Data Privacy", "Processing Integrity" and "Availability" principles and receive attestations of compliance with these standards.

Also, we outsource some of our cloud infrastructure to Amazon Web Services (AWS), which hosts certain of our solution. Customers need to be able to access our solution at any time, without interruption or degradation of performance. AWS runs its own platform that we access, and we are, therefore, vulnerable to service interruptions at AWS. To the extent that we do not effectively address capacity constraints, either through AWS or alternative providers of cloud infrastructure, our business, results of operations and financial condition may be adversely affected. In addition, any changes in service levels from AWS may adversely affect our ability to meet our customers' requirements.

Intellectual Property

We rely upon a combination of trade secrets, copyright and trademark law, as well as contractual restrictions such as confidentiality agreements, to establish and protect our proprietary rights. We have a number of registered and unregistered trademarks and no pending patent applications or issued patents. We maintain a policy requiring our employees, consultants and other third parties to enter into confidentiality and proprietary rights agreements before developing or accessing our software, documentation and other proprietary information, as applicable. We believe that our experience in the market, our significant research and development investments, and our flexible Enterprise Technology Framework will help us to maintain our leadership position in GTM automation.

Despite our efforts to protect our proprietary rights, unauthorized parties may misappropriate our technology to develop a competing solution. Policing unauthorized use of our technology is difficult and the laws of other countries in which we sell our solution may offer little or no effective protection for our technology. Our competitors could also independently develop technologies equivalent to ours, and without patent protection for our intellectual property, we would not be able to restrict them from selling their solution. Despite the potential competition for GTM technology, our Global Knowledge trade content library represents a significant barrier to any competitor seeking to offer a comprehensive GTM solution.

Employees

As of December 31, 2017, we had 692 employees. None of our employees are represented by a labor union with respect to their employment with us. We have not experienced any work stoppages and we consider our relations with our employees to be good.

Corporate Information

We are incorporated in the state of Delaware and our corporate headquarters are located at One Meadowlands Plaza, East Rutherford, NJ 07073. Our telephone number is (201) 935-8588. We maintain a website at www.amberroad.com. Our website and information contained on or linked to our website are not a part of this Annual Report on Form 10-K.

Item 1A. Risk Factors

Our operating and financial results are subject to various risks and uncertainties including those described below, together with all of the other information in this Annual Report on Form 10-K, including the Consolidated Financial Statements and the related notes included elsewhere in this report, which you should consider before deciding whether to invest in shares of our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks or others not specified below actually occurs, our business, financial condition, results of operations, and future prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business and Solution

If we are unable to attract new customers or our existing customers do not renew their subscriptions, the growth of our business and cash flows will be adversely affected.

To increase our revenue and cash flows, we must regularly add new customers. If we are unable to hire or retain effective sales personnel, generate sufficient sales leads through our marketing programs, or if our existing or new customers do not perceive our solution to be of sufficiently high value and quality, we may not be able to increase sales and our operating results would be adversely affected. In addition, our existing customers have no obligation to renew their subscriptions, and renewal rates may decline or fluctuate due to a number of factors, including customers' satisfaction with our solution, our professional services, our customer support, our prices and the prices of competing solutions, as well as mergers and acquisitions affecting our customer base, global economic conditions and customers' spending budgets. If we fail to sell our solution and services to new customers or if our existing customers do not renew their subscriptions, our operating results will suffer, and our revenue growth, cash flows and profitability may be materially and adversely affected.

The market for cloud-based GTM solutions is still evolving. If this market develops more slowly than we expect, our revenue may decline or fail to grow and we may incur additional operating losses.

We derive, and expect to continue to derive, substantially all of our revenue from providing a cloud-based GTM solution and related services. The market for cloud-based GTM solutions is still evolving and it is uncertain whether these solutions will sustain high levels of demand and market acceptance. Our success will depend on the willingness of companies to accept our cloud-based GTM solution as an alternative to manual processes, traditional enterprise resource planning software and internally-developed GTM solutions. Some customers may be reluctant or unwilling to use our cloud-based GTM solution for a number of reasons, including data privacy concerns, data and network security concerns and existing investments in GTM technology.

Traditional approaches to GTM automation have required, among other things, purchasing hardware and licensing software. Because these traditional approaches often require significant initial investments to purchase the necessary technology and to establish systems that comply with customers' unique requirements, companies may be unwilling to abandon their current solutions for our cloud-based GTM solution. Other factors that may limit market acceptance of our solution include:

- our ability to maintain high levels of customer satisfaction
- our ability to maintain continuity of service for all users of our solution
- the price, performance and availability of competing solutions
- our ability to address companies' confidentiality concerns about information stored outside of their premises

If companies do not perceive the benefits of our cloud-based GTM solution, or if companies are unwilling to accept our solution as an alternative to traditional approaches, the market for our solution might not continue to develop or might develop more slowly than we expect, either of which could significantly adversely affect our revenues and growth prospects.

The information we source from third parties for inclusion in our Global Knowledge library may not be accurate and complete, our trade experts may make errors in interpreting legal and other requirements when processing this information, and our trade content may not be updated on a timely basis, which can expose our customers to fines and other substantial claims and penalties.

Our customers often use our solution as a system of record and many of our customers are subject to regulation of their products, services and activities. Our Global Knowledge library includes trade content sourced from government agencies and transportation carriers in numerous countries. It is often sourced from text documents and includes import and export regulations, shipping documents, preferential duties and taxes, specifications for free trade agreements, transportation rates, sailing schedules, embargoed country and restricted party lists, and harmonized tariff codes. The information in these text documents may not be accurate and complete. Our team of trade experts transforms these documents into a normalized and propriety knowledgebase, interpretable by software, and in so doing has to interpret the legal and other requirements contained in the source documents. We can provide no assurances that our trade experts do not make errors in the interpretation of these requirements. Furthermore, rules and regulations and other trade content used in our solution change constantly, and we must continuously update our Global Knowledge library. Maintaining a complete and accurate library is time-consuming and costly and we can provide no assurances that our specialists will always make appropriate updates to the library on a timely basis. Errors or defects in updating the trade content we provide to our customers and any defects or errors in, or failure of, our software, hardware, or systems, can result in an inability to process transactions or lead to violations that could expose our customers to fines and other substantial claims and penalties and involve criminal liability. In addition, these errors and delays may damage our reputation with both existing and new customers and result in lost customers and decreased revenue, which could materially and adversely affect our business, revenue and results of operations.

Any of these problems may enable our customers to terminate our agreements or we may be required to issue credits or refunds, and may be subject to product liability, breach of warranty or other contractual claims. We also may be required to indemnify our customers or third parties as a result of any of these problems. Any provisions in our customer agreements intended to limit liability may not be sufficient to protect us against any such claims. Insurance may not be available on acceptable terms, or at all. In addition, any insurance we do have may not cover claims related to specific defects, errors, failures or delays, may not cover indirect or consequential damages, and otherwise may be inadequate, and defending a suit, regardless of its merit, could be costly and divert management's attention. In general, losses from customers terminating their agreements with us and our cost of defending claims resulting from defects, errors, failures or delays might be substantial, and could have a material adverse effect on our business, financial position, results of operations and cash flows.

Our sales cycle can be long and unpredictable and requires considerable time and expense, which may cause our operating results to fluctuate.

The sales cycle for our solution, from initial contact with a potential lead to contract execution and implementation, varies widely by customer, and can be lengthy. Some of our customers undertake a significant evaluation process that frequently involves not only our solution, but also solutions of our competitors, which may result in extended sales cycles. Our sales efforts involve educating our customers about the use, technical capabilities and benefits of our solution. We have no assurance that the substantial time and money spent on our sales efforts will produce any sales. Furthermore, our sales and marketing efforts in a given period may only result in sales in subsequent periods, or not at all. If we do not realize sales from a customer in the time period expected or at all, our business, operating results and financial condition could be adversely affected.

The complexity of our sales and implementation cycles exposes us to operational risks that we must manage carefully.

The complexity of our sales and implementation cycles makes predicting the time to close a sale and implement our solution difficult, thereby exposing us to operational risks. The length of these cycles depends on our customers' motivation and the resources they devote to the process. If our sales or implementation cycles are longer than we anticipate, we may face staffing shortages or cost overruns.

If our customers are not satisfied with our solution implementation, we could incur additional costs to address these issues, reducing our professional services revenue and the opportunity to sell additional solution modules to these customers. In addition, any negative publicity related to our customer relationships, regardless of its accuracy, may damage our business by affecting our ability to compete for new business with current and prospective customers.

We face intense competition, and our failure to compete successfully would make it difficult for us to add and retain customers and would impede the growth of our business.

The GTM solutions market is fragmented, competitive and rapidly evolving. We compete with GTM vendors, traditional enterprise resource planning vendors such as SAP and Oracle, and other service providers, as well as with solutions developed internally by enterprises seeking to manage their global trade. Some of our actual and potential competitors may enjoy competitive advantages over us, such as greater name recognition, more varied offerings and larger marketing budgets, as well as greater financial, technical and other resources. Furthermore, some competitors may have best-of-breed solutions to problems created by the unique trading requirements of particular countries. As a result, our competitors may be able to

respond more quickly than we can to new or changing opportunities, technologies, standards or customer requirements or devote greater resources to the promotion and sale of their products and services than we can.

The intensity of competition in the GTM market has resulted in pricing pressure as the market has developed and our competitors very frequently offer substantial price discounts for their products. We expect the intensity of competition to increase in the future as existing competitors develop their capabilities and as new companies, which could include one or more large software or trade content providers, enter our market. Increased competition could result in additional pricing pressure, reduced sales, shorter term lengths for customer contracts, lower margins or the failure of our solution to achieve or maintain broad market acceptance. If we are unable to compete effectively, it will be difficult for us to maintain our pricing rates and add and retain customers, and our business, financial condition and results of operations will be harmed.

Industry consolidation may result in increased competition.

We believe that it is likely that some of our existing competitors will consolidate or will be acquired. Some of our competitors have made or may make acquisitions or may enter into partnerships or other strategic relationships to offer a more comprehensive solution than they individually had offered. We expect consolidation in the industry as companies attempt to strengthen or maintain their market positions. This could result in competitors with greater financial, technical, sales, marketing, service and other resources than us. The companies resulting from such combinations may eliminate gaps in their solutions, including a lack of integrated or comprehensive trade content, and these combinations may create more intense competition. Any such consolidation, acquisition, alliance or cooperative relationship could lead to pricing pressure, erosion of our margins, and loss of market share, all of which could have a material adverse effect on our business, results of operations and financial condition.

We may expand by acquiring or investing in other companies, which may divert our management's attention, result in additional dilution to our stockholders and consume resources that are necessary to sustain our business.

Although we have no current definitive agreements or commitments for any acquisitions, our business strategy may include acquiring complementary services, technologies or businesses to augment our solution capabilities and sales platform, particularly in foreign markets. We also may enter into relationships with, or invest in, other businesses to expand our service offerings or our ability to provide service in foreign jurisdictions. Negotiating these transactions can be time-consuming, difficult and expensive, and our ability to close these transactions may often be subject to approvals that are beyond our control. Consequently, these transactions, even if undertaken and announced, may not close.

An acquisition, investment or business relationship may result in unforeseen operating difficulties and expenditures. In particular, we may encounter difficulties assimilating or integrating the businesses, technologies, solutions, personnel or operations of the acquired companies, particularly if the key personnel of the acquired company choose not to work for us, the company's technology is not easily adapted to work with ours or we have difficulty retaining the customers of any acquired business due to changes in management or otherwise. Acquisitions may also disrupt our business, divert our resources and require significant management attention that would otherwise be available for development of our business. Moreover, the anticipated benefits of any acquisition, investment or business relationship may not be realized or we may be exposed to unknown liabilities. Our acquisitions may not be successfully integrated or any such acquisitions may not otherwise be successful. If our acquisitions are unsuccessful for any reason, our business may be harmed and the value of your investment may decline.

Our success depends in part on our ability to develop and market new and enhanced solution modules, and we may not be able to do so, or do so quickly enough to respond to changes in demand. Even if we anticipate changes in demand, it may be difficult for us to transition existing customers to new versions of our solution.

Our success depends in part on our ability to develop and market new and enhanced solution modules, and to do so on a timely basis. Successful module development and marketing depends on numerous factors, including anticipating customer requirements, changes in technology requirements, our ability to differentiate our solution from those of our competitors, and market acceptance of our solutions. Enterprises are requiring their software application vendors to provide ever increasing levels of functionality and broader offerings. Moreover, our industry is characterized by rapid evolution, and shifts in technology and customer needs. We may not be able to develop and market new or enhanced modules in a timely or cost-effective manner or at all. Our solution also may not achieve market acceptance or correctly anticipate technological changes or the changing needs of our customers or potential customers.

In addition, even if we correctly anticipate changes in technology or demand, it might be difficult for us to transition existing customers to new versions of our solution. Such transitions or upgrades may require considerable professional services effort and expense and customers may choose to discontinue using our solution rather than proceed with a lengthy and expensive upgrade. If customers fail to accept new versions of our solution, if our newest solution contains errors, or if we expend too many resources supporting multiple versions of our solution, we may suffer a material adverse effect on our business, financial position, results of operations and cash flows.

Our cost structure is relatively fixed in the short term, which makes it difficult to reduce our expenses quickly in response to declines in revenue or revenue growth.

Most of our expenses, such as those associated with headcount and facilities, as well as those involved with maintaining our extensive Global Knowledge database, are relatively fixed and can be difficult to reduce in the short term. Our expense levels are based in part on our expectations regarding future revenue levels. As a result, if revenue for a particular quarter is below our expectations, our expenses for that quarter may constitute a larger percentage of our operating budget than we planned, causing a disproportionately negative effect on our expected results of operations and profitability for that quarter.

Our solution is complex and customers may experience difficulty in implementing, upgrading or otherwise achieving the benefits attributable to it.

Due to the scope and complexity of the solution that we provide, our implementation cycle can be lengthy and unpredictable. Our solution requires configuration and must integrate with many existing computer systems and applications of our customers and their trading partners. This can be time-consuming and expensive for our customers and can result in delays in the implementation of our solution. As a result, some customers have had, and may in the future have, difficulty implementing our solution successfully or otherwise achieving the expected benefits of our solution. Delayed or ineffective implementation or upgrades of our solution may limit our future sales opportunities, negatively affect revenue, result in customer dissatisfaction and harm our reputation.

Our software may contain material undetected errors, which could enable or otherwise cause our customers to terminate or not renew their subscriptions, damage our reputation and adversely affect our business, revenue and results of operations.

Our software is inherently complex and, despite extensive testing and quality control, may contain material undetected errors or failures especially when first introduced or as new versions are released. Failures or errors in our software could result in data loss or corruption. We may not find errors in new or enhanced solution modules before we release them and such errors may not be discovered by us or our customers until after we have implemented these modules. These errors in our modules could enable or otherwise cause our customers to terminate or not renew their subscriptions. In addition, they may damage our reputation with both existing and new customers and result in lost customers and decreased revenue, which could materially and adversely affect our business, revenue and results of operations.

Our business is subject to cyberattacks and security and privacy breaches and if unauthorized persons breach our security measures, or those of third parties that provide infrastructure for, or components of, our GTM solution, they could access client data, leading clients to curtail or stop their use of our solution, which could harm our business, financial condition and results of operations.

Our GTM solution involves the storage and transmission of confidential information of customers, including certain financial data. We may also in the course of our service engagements have access to confidential customer and personal information. Any security breaches, unauthorized access, unauthorized usage, virus or similar breach or disruption could result in loss of confidential information, personal data and customer content, damage to our reputation, early termination of our contracts, litigation, regulatory investigations, increased costs or other liabilities. If our security measures, or those of our service providers, are breached as a result of third-party action, employee error, malfeasance or otherwise and, as a result, someone obtains unauthorized access to confidential information, personal data or customer content, our reputation will be damaged, our business may suffer and we could incur significant liability associated with higher insurance premiums, costs of indemnification and remediation, litigation, regulatory investigations and penalties that could damage our reputation and adversely impact our results of operations and financial condition. If the measures we have put in place to limit or restrict access to and use of functionality, usage entitlements and support for customers or prospective customers are breached, circumvented or ineffective as a result of third-party action, employee error, malfeasance or otherwise and, as a result, someone obtains unauthorized access to and use of functionality, usage entitlements and support, our business may suffer or we could incur significant liability and/or costs.

Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not discovered until launched against a target. As a result, we and our third-party providers may be unable to anticipate these techniques or to implement adequate preventative measures. If an actual or perceived breach of our solutions occurs, the market perception of our solution could be harmed and we could lose sales and customers. Any significant violations of data privacy or unauthorized disclosure of information could result in the loss of business, higher insurance premiums, costs of indemnification and remediation, litigation and regulatory investigations and penalties that could all damage our reputation and adversely impact our results of operations and financial condition. Moreover, if a security breach occurs with respect to another SaaS provider, our customers and potential customers may lose trust in the security of the SaaS business model generally, which could adversely impact our ability to retain existing customers or attract new ones.

Legal and regulatory changes related to data protection and privacy could create unexpected costs, require changes to our business, impact the use and adoption of our solutions or require us to agree to onerous terms and conditions, which could have an adverse effect on our future revenue, operating results or customer retention.

Legal and regulatory frameworks for data protection and privacy issues are evolving worldwide, and various government and consumer agencies and public advocacy groups have called for new regulation and changes in industry practices. We expect federal, state and foreign governments to expand data protection and privacy regulation and we expect more public scrutiny, enforcement and sanctions in this area. In addition, foreign court judgments and regulatory actions may affect our ability to transfer, process and receive data transnationally, including data that is critical to our operations or core to the functionality of our solutions. New laws, regulations, judgments or actions may relate to the solicitation, collection, processing, use and disclosure of personal information, including cross-border transfers of personal information, in a way that could affect demand for our solutions or cause us to change our platform or business model and increase our costs of doing business.

Our customers can use our solutions to store personal information that is or may be considered personal data in some jurisdictions and, therefore, may be subject to this evolving legislation, regulation or heightened public scrutiny. In addition to the potential adoption of new laws and regulations in the United States and internationally, evolving definitions and norms regarding personal data may require us to adapt our business practices, or limit or inhibit our ability to operate or expand our business.

In order to comply with new United States or international laws, regulations or judgments, including adopting new and potentially onerous customer contractual clauses, we may incur substantial costs or change our business practices in a manner that could reduce our revenue or compromise our ability to effectively pursue our growth strategy. Furthermore, to comply with any new non-U.S. laws, regulations or judgments, we may have to create expensive duplicative information technology infrastructure and business operations, which could hinder our expansion plans or render them commercially infeasible, increase our costs of doing business and harm our financial results.

In addition, customers may experience higher compliance costs as a result of laws, regulations and judgments, which may limit the use and adoption of our solutions and reduce overall demand, or lead to significant fines, penalties or liabilities for any noncompliance. As a result, some industries may not adopt our solutions based on perceived privacy concerns, regardless of the validity of such concerns.

The EU has recently adopted a comprehensive overhaul of its data protection regime from the current national legislative approach to a single European Economic Area Privacy Regulation, the General Data Protection Regulation (“GDPR”), which comes into effect on May 25, 2018. The proposed EU data protection regime extends the scope of the EU data protection law to all foreign companies processing data of EU residents. It provides for a harmonization of the data protection regulations throughout the EU, thereby making it easier for non-European companies to comply with these regulations. It imposes a strict data protection compliance regime with severe penalties of up to the greater of 4% of worldwide turnover and €20 million and includes new rights such as the “portability” of personal data. Although the GDPR will apply across the EU without a need for local implementing legislation, as has been the case under the current data protection regime, local data protection authorities (“DPAs”) will still have the ability to interpret the GDPR, which has the potential to create inconsistencies on a country-by-country basis. Implementation of the GDPR could require changes to certain of our business practices, thereby increasing our costs.

We post on our website our privacy policies and practices regarding the collection, use and disclosure of user data. Any failure, or perceived failure, by us to comply with our posted privacy policies or with any applicable regulatory requirements or orders, or privacy, data protection, information security or consumer protection-related privacy laws and regulations in one or more jurisdictions could result in proceedings or actions against us by governmental entities or others, including class action privacy litigation in certain jurisdictions, subject us to significant fines, penalties, judgments and negative publicity, require us to change our business practices, increase the costs and complexity of compliance, and adversely affect our business. There is no assurance that contractual indemnity or insurance would be available to offset any portion of these costs. Data protection, privacy and information security have become the subject of increasing public, media and legislative concern. If our customers were to reduce their use of our products and services as a result of these concerns, our business could be materially harmed. As noted above, we are also subject to the possibility of security and privacy breaches, which themselves may result in a violation of these privacy laws.

Selling our solution and services internationally subjects us to various risks.

Expanding our GTM software solution internationally is important to our growth and profitability. In the fiscal year ended December 31, 2017, 24% of our revenue was attributable to sales in international markets. We may further expand our sales efforts internationally to other countries, which will require financial resources and management attention and may subject us to new or increased levels of risk. We cannot be assured that we will be successful in creating new international demand for our solution and services.

By doing business in international markets, we are exposed to risks separate and distinct from those we face in our domestic operations, and if we are unable to manage these risks effectively, it may harm the growth and profitability of our business.

Engaging in international business inherently involves a number of other difficulties and risks, including:

- changes in foreign currency exchange rates
- changes in a specific country's or region's political or economic conditions, particularly in emerging markets
- burdens of complying with a wide variety of foreign customs, laws and regulations, and with U.S. laws such as the Foreign Corrupt Practices Act
- increased financial accounting and reporting burdens and complexities
- changes in diplomatic and trade relationships
- international terrorism and anti-American sentiment
- possible future limitations on the ownership of foreign businesses
- difficulties in enforcing agreements and collecting receivables through certain foreign legal systems or difficulty collecting international accounts receivable or longer accounts receivable payment cycles
- less effective protection of intellectual property

Our exposure to each of these risks may increase our costs, impair our ability to market and sell our solution and services, and require significant management attention. Our business, financial position, results of operations and cash flows may be materially adversely affected by the realization of any of these risks.

We have a history of losses and we may not achieve or sustain profitability in the future.

We have incurred significant losses since our formation, including net losses of \$13.0 million in 2017, \$18.7 million in 2016, and \$28.1 million in 2015. As of December 31, 2017, we had an accumulated deficit of \$167.9 million. As part of our strategy to develop and expand our business, we have incurred significant sales and marketing expenses to attract additional customers, as well as research and development expenses to further develop our solution and services. These efforts may not succeed in increasing our revenue sufficiently to offset these higher expenses. Any failure to increase our revenue or generate revenue from developing new modules and expanding our services could prevent us from attaining or increasing profitability. In addition, as a public company, we will continue to incur significant accounting, legal and other expenses that we did not incur as a private company. Furthermore, we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may result in continuing or greater losses in future periods. You should not consider our historical revenue growth rates to be indicative of our future performance. We cannot be certain that we will be able to attain profitability on a quarterly or annual basis, or if we do, that we will sustain profitability.

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

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

Significant developments stemming from the United Kingdom's departure from the EU or the 2016 U.S. presidential election could have a material adverse effect on us.

The United Kingdom vote authorizing its exit from the European Union (referred to as "Brexit") could over time create uncertainty for our business. For example, our relationships with European customers or prospective customers in the United Kingdom, data centers and other vendors, and employees could change in unpredictable ways and have an adverse effect on our business and could also have an adverse impact on our bookings. The outcome of negotiations about the specific terms of the United Kingdom's future relationship with the European Union are unpredictable. For example, important issues such as trade and tariff, immigration and commercial regulation may be modified during a transition period or permanently. In addition, Brexit could lead to legal uncertainty and divergent national laws and regulations where previously European Union laws and regulations prevailed, which may affect the need for our GTM solutions. Any of these effects of Brexit, and others we cannot anticipate, could adversely affect our business, business opportunities and our solutions.

Further, the new U.S. administration has taken a negative stance toward existing trade agreements, like the North American Free Trade Agreement ("NAFTA"), has withdrawn from proposed trade agreements, like the Trans-Pacific Partnership ("TPP"), and has advocated for greater restrictions on free trade generally and significant increases on tariffs on goods imported into the United States, particularly from Mexico and China. These positions could adversely affect our business due to a potential reduction in the role of global trade, leading customers to place less importance on, or delay

purchasing, GTM solutions. Changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing and development and any negative sentiments towards the United States as a result of such changes, could further adversely affect our business, business opportunities and our solutions.

Declines in new subscriptions or in the rate of renewal of our subscriptions may not be fully reflected in our current period operating results and could lead to future revenue shortfalls that could affect our results of operations.

In 2017, we derived 74% of our total revenue from subscription agreements. We recognize revenue from these subscriptions ratably over the term of the agreement, and accordingly, a substantial portion of our subscription revenue that we report in each period will be derived from the recognition of deferred revenue relating to subscriptions entered into in earlier periods. Therefore, downturns or upturns in new or renewal subscriptions may not be fully reflected in our current period operating results. If our new and renewal subscriptions in any period decline or fail to grow at a rate consistent with our historical trends, our revenue in future periods could fall short of analysts' expectations which, in turn, could adversely affect the price of our common stock.

Changes in financial accounting standards may adversely impact our results of operations.

A change in accounting standards or practices, in particular with respect to revenue recognition, could adversely affect our operating results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. For example, in May 2014, the Financial Accounting Standards Board issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), which supersedes nearly all existing revenue recognition guidance under accounting principles generally accepted in the United States of America. We adopted this new standard on the effective date of January 1, 2018, utilizing the modified retrospective transition approach. While we are in the process of finalizing our evaluation of the total impact of the new revenue standard, we do not believe the adoption of this new standard will have a material impact on our consolidated financial statements and disclosures. These and other changes to existing rules or the questioning of current practices may adversely affect our operating results.

We rely largely on our own employees to sell and implement our solution and may be at a disadvantage compared to competitors that utilize external channels.

Many enterprise software companies, including some of our competitors, utilize multiple partner networks to sell and deploy their solutions. These partners can include consulting companies of national reputation who may have established relationships with our potential customers. The dedication of a national consulting company to a particular GTM offering enhances the reputation of that offering in the marketplace. To date, we have relied mainly on our own sales and professional services employees to sell and implement our solution, which may put us at a competitive disadvantage. To increase our revenue and cash flows, we must regularly add new customers and maintain the ability to provide them with timely professional services. If we are unable to do so on our own, the market perception of our solution could be harmed and we could suffer a material adverse effect on our business, results of operations and financial condition.

If we lose the services of our Chief Executive Officer or other members of our senior management team, it could impair our ability to execute our business strategy and our sales and profitability could suffer.

Our success and future growth depend on the skills, working relationships and continued services of our senior management team and in particular, our Chief Executive Officer, James W. Preuninger. In the event that we are unable to retain the services of any of these key contributors, we may be unable to execute our business strategy in a timely manner, if at all, which could adversely affect our business, operating results and financial condition.

Our business could be adversely affected if we are unable to attract, integrate and retain key personnel.

Our success in the highly competitive GTM solutions market depends largely on our ability to attract, integrate and retain highly skilled managerial, solution, engineering, trade content and sales and marketing personnel. Competition for these personnel in our industry is intense. We may not be able to attract and retain the appropriately qualified, highly skilled employees necessary for the development of our solution and services and the growth of our business, or to replace personnel who leave our employ in the future. The loss of services of any of our key personnel, the inability to retain and attract qualified personnel in the future, or delays in hiring required personnel, particularly global trade subject matter experts, information technology professionals and project managers, could make it difficult to meet key objectives, such as timely and effective upgrades and introductions, penetration and expansion into existing accounts and growth in the GTM solutions market.

Our growth is dependent upon the continued development and retention of our direct sales force and any failure to hire and/or retain these personnel may impede our growth.

We have invested extensively in our direct sales force. We believe that our future growth will depend on the continued development of this sales force and their ability to obtain new customers, particularly enterprise customers, and to manage our existing customer base. Our ability to achieve significant growth in revenue in the future will depend, in large part, on our success in recruiting, training and retaining a sufficient number of direct sales personnel. New sales personnel require

significant training and may, in some cases, take more than a year before becoming productive, if at all. If we are unable to hire and develop sufficient numbers of productive direct sales personnel, sales of our GTM solution and related services will suffer and our growth will be impeded.

We are exposed to exchange rate risks on foreign currencies that may adversely affect our business and results of operations.

Because most of our international sales are denominated in the currency of the country where the purchaser is located, as we continue to expand our direct sales presence in international regions, the portion of our accounts receivable and payment obligations denominated in foreign currencies continues to increase. In addition, we incur significant costs related to our operations in India in Rupees, and we also incur costs related to our operations in China in RMB and in Hong Kong in HKD, which will continue to increase. As a result, increases or decreases in the value of the U.S. dollar relative to foreign currencies may affect our financial position, results of operations and cash flow. Our largest exposures to foreign exchange rates exist with respect to the British Pound, the Euro, the Rupee, the Hong Kong dollar and Renminbi, which together represented approximately 24% of revenue and approximately 28% of our cost of revenue in 2017. We do not currently hedge our exposure to fluctuations in foreign exchange rates. Any hedging policies we may implement in the future may not be successful, and the cost of those hedging techniques may have a significant negative effect on our operating results.

Interruptions or delays in the delivery of our GTM solution could impair the availability or use of our solution, resulting in customer dissatisfaction, damage to our reputation, loss of customers, limited growth and reduction in revenue.

We host our GTM, SCC and CTM solutions for our cloud delivery model customers in appropriately located and highly secure co-location facilities. Design or mechanical errors, power losses, spikes in usage volume, hardware failures, systems failures, communications failures, failure to follow system protocols and procedures, intentional bad acts, natural disasters, war, terrorist attacks or security breaches, including cyber-attacks, could cause our systems to fail, resulting in interruptions in our service.

Other interruptions or delays in delivering our GTM, SCC and CTM solutions can result from changes to or termination of our arrangements with the owners of the facilities. The owners of our facilities have no obligation to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew these agreements on commercially reasonable terms, we may be required to transfer to one or more new data center facilities, and we may incur significant costs and possible service interruption in doing so.

In addition, our Jacksonville, Florida data center's location may make it susceptible to tropical storms and hurricanes, which, depending on severity, could also cause interruptions or delays in the delivery of our solution. All of our GTM solutions are hosted primarily from our Jacksonville facility, and our Carlstadt, New Jersey facility acts as a disaster recovery site that can host our solution following a catastrophic event at our Jacksonville co-location facility. For customers who have not chosen real time replication of their data to our Carlstadt facility, it can take us a substantial amount of time to migrate them to Carlstadt and restore functionality for them.

Many of our customers may consider our GTM solution to be "mission critical," and any delay in restoring our solution may be unacceptable to customers. Although we conduct disaster recovery tests annually and are capable of bringing our solution online following catastrophe scenarios, any equipment failures and delays in restoring our solution could enable or otherwise cause our customers to terminate or not renew their subscriptions. In addition, they may damage our reputation with both existing and new customers and result in lost customers and decreased revenue, which could materially and adversely affect our business, revenue and results of operations.

If we fail to manage our international operations effectively, our business, financial condition and results of operations could be adversely affected.

We have offices in the United States, Germany, India and China, and we may continue our international expansion. Managing a geographically dispersed workforce in multiple time zones in compliance with diverse local laws and customs is challenging. If we fail to manage our international workforce effectively, our business, financial condition and results of operations could be adversely affected.

Political, economic, social and other factors in India and China may adversely affect our operations and our ability to achieve our business objectives.

We have offices in Bangalore, India, in which the majority of our engineers are situated. Since the early 1990s, the Indian government has been implementing an economic structural reform program with the objective of liberalizing India's exchange and trade policies, reducing the fiscal deficit, controlling inflation, promoting a sound monetary policy, reforming the financial sector, and placing greater reliance on market mechanisms to direct economic activity. While economic liberalization efforts in India continue, there can be no assurance that these economic reforms will persist, and that any newly elected government will continue the program of economic liberalization of previous governments. In addition, despite the economic reforms, India continues to have relatively poor business conditions.

India has also experienced terrorist attacks in the past decade. Religious and border disputes persist and remain pressing problems. Military hostilities and civil unrest in Afghanistan, Iraq and other Asian countries persist. These events could adversely influence the Indian economy and, as a result, materially and adversely affect our operations and our ability to achieve our business objectives.

We conduct our business in China through several Chinese subsidiaries. The results of operations and future prospects of our Chinese subsidiaries are subject to evolving economic, political and social developments in China. In particular, these results may be adversely affected by changes in China's political, economic and social conditions, changes in policies of the Chinese government, changes in laws and regulations or in the interpretation of existing laws and regulations, changes in foreign exchange regulations, measures that may be introduced to control inflation, and changes in the rates or methods of taxation. Also, Chinese commercial laws, regulations and interpretations applicable to non-Chinese owned market participants such as us are continually changing. These laws, regulations and interpretations could impose restrictions on our ownership or operations of our interests in China and could have a material adverse effect on our business.

Uncertainties with respect to the Chinese legal system may adversely affect the operations of our Chinese subsidiaries.

Our Chinese subsidiaries are subject to laws and regulations applicable to foreign investment in China. There are uncertainties regarding the interpretation and enforcement of laws, rules and policies in China. Because many laws and regulations are relatively new, the interpretations of many laws, regulations and rules are not always uniform. Moreover, the interpretation of statutes and regulations may be subject to government policies reflecting domestic political agendas. Finally, enforcement of existing laws or contracts based on existing law may be uncertain and sporadic. As a result of the foregoing, it may be difficult for us to obtain swift or equitable enforcement of laws ostensibly designed to protect companies like ours, which could have a material adverse effect on our business and results of operations.

We may need additional funding and we may be unable to raise capital when needed, which could force us to delay, reduce or eliminate our solution development programs.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to enhance existing and develop new modules, improve our operating infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing secured by us, currently or in the future, could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. In addition, we may not be able to obtain additional financing on terms favorable to us, if at all. We currently have an outstanding term loan facility with a maturity date of December 31, 2019. Upon maturity, we may not have the resources for repayment and there can be no assurance that an extension can be obtained, or obtained on terms acceptable to us. If we are unable to obtain adequate financing or financing on terms satisfactory to us when required, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired. In that case, we may not be able to, among other things, develop or enhance our solution, expand our sales and marketing, acquire complementary technologies, solutions or businesses, expand operations in the United States or internationally, hire, train and retain employees, or respond to competitive pressures or unanticipated working capital requirements. Our failure to do any of these things could have a material adverse effect on our business, financial condition, and operating results.

Our effective tax rate may fluctuate, and we may incur obligations in tax jurisdictions in excess of amounts that have been accrued.

We are subject to income taxes in both the United States and various foreign jurisdictions, and we may take certain income tax positions on our tax returns with which tax authorities may disagree. When necessary, we provide reserves for potential payments of tax to various tax authorities related to uncertain tax positions. However, the calculation of our tax liabilities involves the application of complex tax regulations to our global operations in many jurisdictions. Therefore, any dispute with any tax authority may result in a payment that is materially different from our current estimate of the tax liabilities associated with our returns.

Changes in tax laws or tax rulings could materially affect our effective tax rate. Recently enacted United States tax rules, including provisions that reduce or eliminate the deferral of United States income tax on our unrepatriated earnings, may require those earnings to be taxed at the U.S. federal income tax rate, reduce or eliminate our ability to claim foreign tax credits, and eliminate various tax deductions until foreign earnings are repatriated to the United States. At December 31, 2017, we had net operating loss carryforwards for federal income tax purposes of approximately \$90.9 million. Our future reported financial results may be adversely affected by tax rule changes which restrict or eliminate our ability to utilize net operating loss carry-forwards, claim foreign tax credits or deduct expenses attributable to foreign earnings, or otherwise affect the treatment of our unrepatriated earnings.

Our ability to use our net operating loss carryforwards may be subject to limitation.

Under IRC section 382, substantial changes in our ownership may limit the amount of net operating loss carryforwards that could be utilized annually in the future to offset our taxable income. Specifically, this limitation may arise in the event of a cumulative change in ownership of our company of more than 50% within a three year period. Any such annual limitation may significantly reduce the utilization of our net operating loss carryforwards before they expire. We have completed an IRC section 382 study through June 30, 2016, which concluded that we have experienced several ownership changes, causing limitations on the annual use of the net operating loss carryforwards. Provided there is sufficient taxable income, \$2,131,290 of the net operating losses are expected to expire without utilization. Additionally, our ability to use our net operating loss carryforwards to reduce future taxable income may be further limited as a result of any future equity transactions, including, but not limited to an issuance of shares of our stock or sales of common stock by our existing stockholders.

Additionally, on December 22, 2017, the Tax Cuts and Jobs Act (“TCJA”) was enacted and is generally effective for taxable years beginning after December 31, 2017. The TCJA is complex and includes significant amendments to the Code, including amendments that significantly change the value of our deferred tax assets related to net operating losses, and impose a mandatory one-time tax on the accumulated earnings of certain of our foreign subsidiaries. The application of accounting guidance for such items is currently uncertain, as compliance with the TCJA and the accounting for such provisions requires the accumulation of information not previously required or regularly produced. As additional regulatory guidance is issued by the applicable taxing authorities, as accounting treatment is clarified, as we perform additional analysis on the application of the law and as we refine estimates in calculating its effect, our final analysis, which will be recorded in the period completed, may be different from our current provisional amounts, which could materially affect our deferred taxes, tax obligations and accounting for income taxes.

If we are unable to manage our expected growth, our performance may suffer.

Our business has grown rapidly, and if we are successful in executing our business strategy, this growth will continue as we leverage our existing customer relationships, expand internationally, increase our solution offerings and execute strategic acquisitions. We will need to continue to expand our managerial, operational, financial and other systems and resources to manage our operations, continue our research and development activities, increase our sales force and expand our professional services team. It is possible that our management, finance, development personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively manage our operations and growth requires that we continue to develop more robust business processes and improve our systems and procedures in each of these areas and attract and retain sufficient numbers of talented employees. We may be unable to successfully implement these tasks on a larger scale and, accordingly, may not achieve our research, development and growth goals.

Our loan and security agreement with our lender contains operating and financial covenants that may restrict our business and financing activities.

We are party to a credit agreement in connection with our term loan and revolving line of credit. Borrowings under the credit agreement are secured by substantially all of our assets, excluding intellectual property.

The operating and financial restrictions and covenants in the credit agreement, as well as any future financing agreements that we may enter into, restrict our ability to finance our operations, engage in business activities or expand or fully pursue our business strategies. Our ability to comply with these covenants may be affected by events beyond our control, and we may not be able to meet those covenants. From time to time we may be required to seek waivers, a forbearance or an amendment to the credit agreement in order to maintain compliance with these covenants, and there can be no certainty that any such waiver, amendment or forbearance will be available, or what the cost of such waiver, amendment or forbearance, if obtained, would be. A breach of any of these covenants could result in a default under the credit agreement, which could cause all of the outstanding indebtedness under our line of credit to become immediately due and payable, terminate all commitments to extend further credit and permit our lender to take possession of and sell our assets pledged as collateral.

If we are unable to generate sufficient cash available to repay our debt obligations when they become due and payable, either when they mature or in the event of a default, we may not be able to obtain additional debt or equity financing on favorable terms, if at all, which may negatively affect our ability to continue as a going concern.

Risks Related to Our Intellectual Property

We may not be able to adequately protect our intellectual property rights in internally developed software and other materials and efforts to protect them may be costly.

Our ability to compete effectively depends in part upon our ability to protect our intellectual property rights in our software and other materials that we have developed internally. We hold no issued or pending patents and have relied largely on copyright, trade secret and, to a lesser extent, trademark laws, as well as confidentiality procedures and agreements with our employees, consultants, customers and vendors, to control access to, ownership of and distribution of technology, software, documentation and other confidential information. Despite these precautions, it may be possible for a third party to copy, reverse engineer or otherwise obtain, use or distribute our technology, software and/or documentation without

authorization. If this were to occur, we could lose revenue as a result of competition from products infringing or misappropriating our technology and intellectual property and we may be required to initiate litigation to protect our proprietary rights and market position.

United States copyright and trade secret laws offer us only limited protection and the laws of some foreign countries protect proprietary rights to an even lesser extent. Accordingly, defense of our proprietary technology may become an increasingly important issue as we continue to expand our operations and technology development into countries that provide a lower level of intellectual property protection than the United States. Policing unauthorized use of our technology is difficult and the steps we take may not prevent misappropriation of the technology we rely on. If competitors are able to use our technology without recourse, our ability to compete would be harmed and our business would be materially and adversely affected.

We may elect to initiate litigation in the future to enforce or protect our proprietary rights or to determine the validity and scope of our rights or the rights of others. That litigation may not be ultimately successful and could result in substantial costs to us, the reduction or loss in intellectual property protection for our technology, the diversion of our management attention and harm to our reputation, any of which could materially and adversely affect our business and results of operations.

Assertions by any other third party that we infringe its intellectual property, whether successful or not, could subject us to costly and time-consuming litigation and expensive licenses.

The software and technology industries are characterized by frequent litigation based on allegations of infringement or other violations of patents, copyrights, trademarks, trade secrets or other intellectual property rights. For example, in 2011 a non-practicing entity claimed that our solution infringed one of its patents. Although we successfully defended this claim, we cannot be certain that our solution and services do not infringe the intellectual property rights of other third parties. Additionally, because our software is integrated with our customers' business processes and other software applications, third parties may bring claims of infringement or misappropriation against us, as well as our customers and other software suppliers. Claims of alleged infringement of intellectual property rights of third parties could be asserted against us in the future. We cannot be sure that we would prevail against any such asserted claim. In addition to possible claims with respect to our proprietary information, some of our solution modules contain technology developed by and licensed from third parties and we may likewise be susceptible to infringement or misappropriation claims with respect to these third party technologies.

Claims of alleged infringement of third party intellectual property rights may have a material adverse effect on our business. Any intellectual property rights claim made against us or our customers, with or without merit, could be time-consuming, expensive to litigate or settle, and could divert management attention and financial resources. An adverse determination could prevent us from offering our modules or services to our customers and may require that we procure or develop substitute modules or services that do not infringe. Claims of intellectual property infringement also might require us to enter into costly royalty or license agreements. We may be unable to obtain royalty or license agreements on terms acceptable to us or at all. Furthermore, many of our license agreements require us to indemnify and defend our customers for certain third-party intellectual property infringement claims, which could increase our costs as a result of defending such claims and may require that we pay damages if there were an adverse ruling related to any such claims. Even if we are not a party to any litigation between customers and a third party, an adverse outcome in any such litigation could make it more difficult for us to defend our services and solution in any subsequent litigation in which we are a named party. Moreover, such infringement claims may harm our relationships with our existing customers and may deter future customers from purchasing our solution on acceptable terms, if at all.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of employees' former employers.

We could in the future be subject to claims that we or our employees have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of our employees' former employers. Litigation may be necessary to defend against these claims. If we fail in defending against such claims, a court could order us to pay substantial damages and prohibit us from using technologies or features that are essential to our solution if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. In addition, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to develop, market and support new solution modules or enhancements to existing modules, which could severely harm our business. Even if we are successful in defending against these claims, such litigation could result in substantial costs and distract management.

Risks Related to Ownership of Our Common Stock

The market price for our common stock may be volatile.

Fluctuations in the price of our common stock could contribute to the loss of all or part of your investment. The trading price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect on your investment in our common stock. In such circumstances, the trading price of our common stock may not recover and may experience a further decline.

The market price for our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control. Factors affecting the trading price of our common stock may include:

- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to us
- changes in the market's expectations about our operating results
- the effects of seasonality on our business cycle
- success of competitive solutions and services
- our operating results failing to meet the expectation of securities analysts or investors in a particular period or failure of securities analysts to publish reports about us or our business
- changes in financial estimates and recommendations by securities analysts concerning our company, the GTM market, or the software industry in general
- operating and stock price performance of other companies that investors deem comparable to us
- news reports relating to trends in global trade, including changes in estimates of the future size and growth rate of our markets
- announcements by us or our competitors of acquisitions, new offerings or improvements, significant contracts, commercial relationships or capital commitments
- our ability to market new and enhanced solution modules on a timely basis
- changes in laws and regulations affecting our business
- commencement of, or involvement in, litigation involving our company, our general industry, or both
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt
- the volume of shares of our common stock available for public sale
- any major change in our board or management
- sales of substantial amounts of common stock by our directors, executive officers or principal stockholders or the perception that such sales could occur
- general economic and political conditions such as recessions, interest rates, fuel prices, international currency fluctuations and acts of war or terrorism

Broad market and industry factors may materially harm the market price of our common stock irrespective of our operating performance. The stock market in general and the market for technology companies and software companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of ours, may not be predictable. A loss of investor confidence in the market for technology or software stocks or the stocks of other companies which investors perceive to be similar to us, the opportunities in the GTM market or the stock market in general, could depress our stock price regardless of our business, prospects, financial conditions or results of operations.

In addition, in the past, following periods of volatility in the overall market and the market price of a company's securities, securities class action litigation has often been instituted against the affected company. This type of litigation, even if unsuccessful, could be costly to defend and distract our management.

The interests of certain stockholders may conflict with our interests or those of other stockholders, and their actions could disrupt our business and affect the market price and volatility of our securities.

Certain stockholders may take positions or make proposals with respect to, or with respect to potential changes in, among other things, our operations, management, management and employee incentives, our certificate of incorporation and bylaws, the composition of our Board of Directors, ownership, capital or corporate structure, potential acquisitions involving us, strategy, and plans. The foregoing positions or proposals may not in all cases be aligned with the interests of our other stockholders. Certain stockholders may have an interest in pursuing acquisitions, divestitures, and other transactions that, in their judgment, could enhance their investment, even though such transactions involve risks to our other stockholders.

Responding to actions by these or other stockholders can be costly, time-consuming, and disruptive to our operations and can divert the attention of management and our employees. Such activities could interfere with our ability to execute our business strategy. The perceived uncertainties as to our future direction also could affect the market price and volatility of our common stock.

We may be subject to unsolicited takeover activity, which could be disruptive to our business.

In February 2018, E2open, LLC made a public unsolicited proposal to acquire all of our outstanding common stock. This proposal was unanimously rejected by our Board of Directors, which concluded that continuing to execute our existing strategic plan is the best means of maximizing value for our stockholders over the long term. Responding to unsolicited takeover activity and proposals may divert management attention and may require us to incur significant costs. The unsolicited nature of such activity and proposals may disrupt our operations, which could have a significant adverse effect on our business and financial results. The market price of our common stock may be volatile and subject to fluctuations due to the uncertainty associated with unsolicited takeover activity.

The JOBS Act allows us to postpone the date by which we must comply with certain laws and regulations intended to protect investors and to reduce the amount of information we provide in our reports filed with the SEC, which could undermine investor confidence in our company and adversely affect the market price of our common stock.

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012 (“JOBS Act”), and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies” including, but not limited to, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a non-binding advisory vote on executive compensation, which may make it more difficult for investors and securities analysts to evaluate our company. We may take advantage of these reporting exemptions until we are no longer an “emerging growth company” which may be as late as December 31, 2019.

We currently intend to and continue to take advantage of some or all of the reduced regulatory and reporting requirements available to us so long as we qualify as an “emerging growth company,” except that we have irrevocably elected not to take advantage of the extension of time to comply with new or revised financial accounting standards available under Section 102(b) of the JOBS Act, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies.

Additionally, our independent registered public accounting firm will not be required to provide an attestation report on the effectiveness of our internal control over financial reporting so long as we qualify as an emerging growth company, which may increase the risk that weaknesses or deficiencies in our internal control over financial reporting go undetected. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and the market price of our common stock may be materially and adversely affected.

If we are unable to maintain effective internal control over financial reporting, investors could lose confidence in our financial statements and our company, which could have an adverse effect on our business and stock price.

In order to provide reliable financial reports, mitigate the risk of fraud and operate successfully as a publicly traded company, we must maintain effective control over our financial reporting as required by Section 404 of the Sarbanes-Oxley Act of 2002.

We are required to assess the effectiveness of our internal control over financial reporting as of the end of each fiscal year. This assessment must include disclosure of any material weakness in our internal control over financial reporting that is identified by management. Once we are no longer an emerging growth company, our independent registered public accounting firm will also be required to consider our internal controls over financial reporting and express an opinion as to their effectiveness. If our management or our independent registered public accounting firm identifies one or more material weaknesses in our internal control over financial reporting, we will be unable to conclude that such internal control is effective. We are in the process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404. If we are unable to conclude that our internal control over financial reporting is effective, or, when we are no longer an emerging growth company, if our independent registered public accounting firm is unable to express an opinion that our internal control over financial reporting is effective, investors could lose confidence in the accuracy and completeness of our financial reports, which could have a materially adverse effect on our stock price.

We do not currently intend to pay dividends on our common stock and, consequently, your ability to achieve a return on your investment will depend on the appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our common stock and covenants in our loan and security agreement also prevent us from paying cash dividends. We currently intend to retain any future earnings to fund our future growth and do not expect to declare or pay any dividend on shares of our common stock in the foreseeable future. As a result, you may only realize a gain on your investment in our common stock if the market price of our common stock appreciates and you sell your shares at a price above your cost after accounting for any taxes. The price of our common stock may not appreciate in value or ever exceed the price at which our stockholders purchased their shares.

Anti-takeover provisions in our certificate of incorporation and bylaws, as well as provisions in Delaware law, might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Our certificate of incorporation, bylaws and Delaware law contain provisions that could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by our board of directors. Our corporate governance documents include provisions: (i) dividing our board of directors into three classes with staggered three-year terms; (ii) denying cumulative voting rights to stockholders; (iii) specifying that directors may be removed by our stockholders only for cause upon the vote of two-thirds or more of our outstanding common stock; (iv) specifying that the authorized number of directors may be changed only by resolution of the board of directors; (v) eliminating the right of stockholders to act by written consent without a meeting; (vi) specifying that only our chairman of the board, Chief Executive Officer or the board of directors may call a special meeting of stockholders; (vii) limiting stockholder proposals to nominate director candidates to those for which timely advance notice was provided; and (viii) limiting stockholder amendments of the foregoing provisions to a vote of at least two thirds of our outstanding common stock. These provisions, alone or together, could delay hostile takeovers and changes in control or changes in our management.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our company, thereby reducing the likelihood that you could receive a premium for your common stock in an acquisition.

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock.

Sales of our common stock by current stockholders may make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate, and make it more difficult for you to sell shares of our common stock.

Certain holders of our securities are entitled to rights with respect to the registration of their shares under the Securities Act of 1933. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

We have registered and expect to continue to register on Form S-8 all shares of common stock that are issuable under our 2002 Stock Option Plan and 2012 Omnibus Incentive Compensation Plan. As a consequence, these shares can be freely sold in the public market upon issuance, subject to applicable limitations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters are located in East Rutherford, New Jersey and consists of approximately 11,000 square feet of office space under a lease that expires in April 2024. We also lease office facilities in McLean, Virginia; Raleigh, North Carolina; Munich, Germany; Bangalore, India; Shenzhen and Shanghai, China; and Hong Kong. We use all of these facilities primarily for sales, professional services, customer support and software engineering. We do not own any real property. We believe that our current facilities are suitable and adequate to meet our current needs.

Item 3. Legal Proceedings

We are involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on our financial position, results of operations, or liquidity.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information for our Common Stock

Our common stock has been listed on the New York Stock Exchange since March 21, 2014 under the symbol "AMBR". The following table sets forth for the period indicated the high and low sales prices per share of our common stock, as reported by The New York Stock Exchange.

	2017		2016	
	High	Low	High	Low
First quarter	\$ 9.58	\$ 6.71	\$ 5.74	\$ 3.60
Second quarter	8.85	6.90	7.84	4.50
Third quarter	9.82	7.05	11.29	7.66
Fourth quarter	8.59	6.14	12.30	8.89

Holder of Record

As of February 28, 2018, there were 12 holders of record of our common stock (not including an indeterminate number of beneficial holders of stock held in street name).

Dividend Policy

We have never paid or declared any cash dividends on our common stock and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. Covenants in our term loan and revolving line of credit agreements also prevent us from paying cash dividends. We intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business. Payment of future cash dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, outstanding indebtedness and plans for expansion and restrictions imposed by lenders, if any.

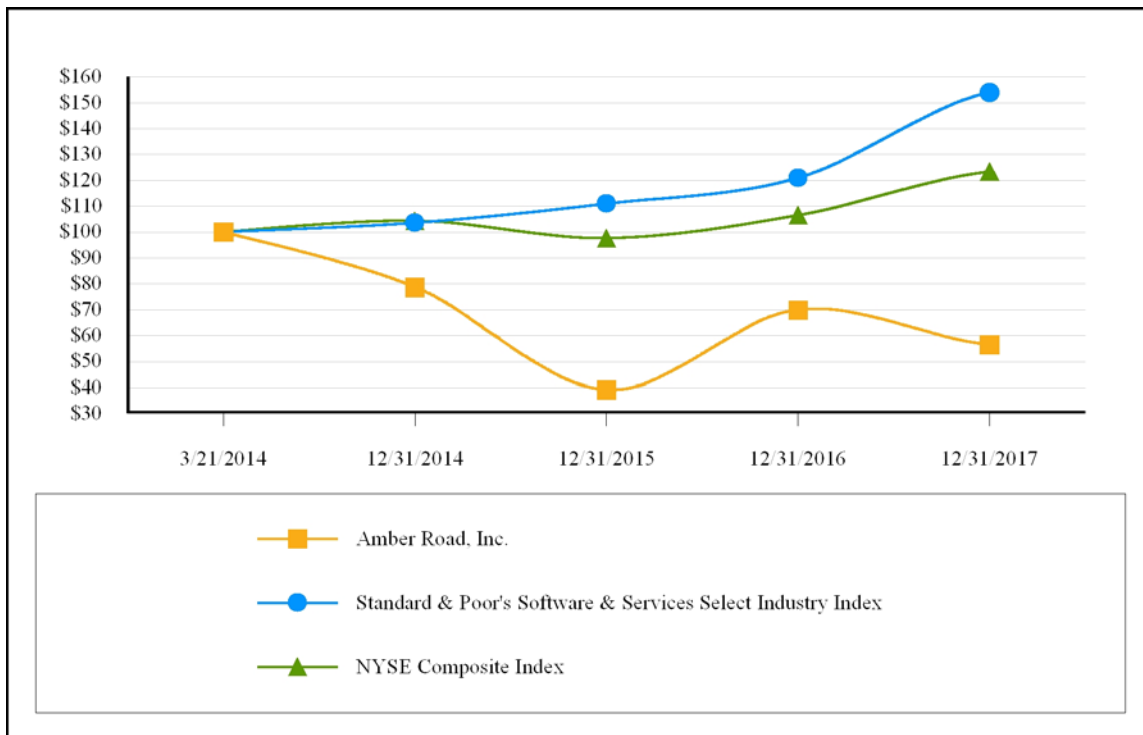
Securities Authorized for Issuance under Equity Compensation Plans

The information concerning our equity compensation plans is incorporated by reference from information contained under the section "Equity Compensation Plans" in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

Stock Performance Graph

This performance graph shall not be deemed “soliciting material” or to be “filed” with the SEC for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Amber Road, Inc. under the Securities Act of 1933, as amended, or the Exchange Act.

The graph below compares the cumulative total stockholder return on our common stock with the cumulative total return on the NYSE Composite Index and the Standard & Poor's Software & Services Select Industry Index for the period beginning on March 21, 2014 (the date our common stock commenced trading on the New York Stock Exchange) through December 31, 2017, assuming an initial investment of \$100. Data for the NYSE Composite Index and the Standard & Poor's Software & Services Select Industry Index assume reinvestment of dividends. The comparisons in the graph below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock.



Item 6. Selected Financial Data

The following selected consolidated financial data should be read together with Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations* and our consolidated financial statements and related notes in Item 8, *Financial Statements and Supplementary Data*. The selected consolidated financial data in this section are not intended to replace our consolidated financial statements and the related notes. Our historical results are not necessarily indicative of our future results. The selected consolidated statements of operations data for the years ended December 31, 2017, 2016, and 2015 and the consolidated balance sheet data as of December 31, 2017 and 2016 are derived from our audited consolidated financial statements contained in Item 8, *Financial Statements and Supplementary Data*. We derived the consolidated statements of operations data for the years ended December 31, 2014, and 2013 and the consolidated balance sheet data as of December 31, 2015, 2014, and 2013 from our audited consolidated financial statements not included in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2017	2016	2015	2014	2013
Consolidated Statements of Operations Data:					
Revenue:					
Subscription	\$ 58,479,139	\$ 53,310,533	\$ 47,067,117	\$ 45,142,117	\$ 38,866,989
Professional services	20,596,971	19,850,657	20,042,803	19,691,349	13,660,000
Total revenue	<u>79,076,110</u>	<u>73,161,190</u>	<u>67,109,920</u>	<u>64,833,466</u>	<u>52,526,989</u>
Cost of revenue (1):					
Cost of subscription revenue	21,151,419	19,922,839	20,041,196	14,586,245	12,747,971
Cost of professional services revenue	16,590,148	15,813,562	16,852,844	12,901,935	9,498,225
Total cost of revenue	<u>37,741,567</u>	<u>35,736,401</u>	<u>36,894,040</u>	<u>27,488,180</u>	<u>22,246,196</u>
Gross profit	<u>41,334,543</u>	<u>37,424,789</u>	<u>30,215,880</u>	<u>37,345,286</u>	<u>30,280,793</u>
Operating expenses (1):					
Sales and marketing	22,526,535	22,637,984	24,200,504	20,033,251	16,246,583
Research and development	14,941,394	16,794,516	16,448,625	9,745,137	7,935,614
General and administrative	15,263,297	15,318,098	16,528,568	15,761,895	10,468,776
Restricted stock expense	—	—	—	18,683,277	9,327,594
Total operating expenses	<u>52,731,226</u>	<u>54,750,598</u>	<u>57,177,697</u>	<u>64,223,560</u>	<u>43,978,567</u>
Loss from operations	<u>(11,396,683)</u>	<u>(17,325,809)</u>	<u>(26,961,817)</u>	<u>(26,878,274)</u>	<u>(13,697,774)</u>
Interest income	4,806	57,126	61,414	2,009	18,432
Interest expense	(976,834)	(862,321)	(910,046)	(275,074)	(168,810)
Loss before income taxes	<u>(12,368,711)</u>	<u>(18,131,004)</u>	<u>(27,810,449)</u>	<u>(27,151,339)</u>	<u>(13,848,152)</u>
Income tax expense	608,775	595,722	268,225	552,619	549,718
Net loss	<u>(12,977,486)</u>	<u>(18,726,726)</u>	<u>(28,078,674)</u>	<u>(27,703,958)</u>	<u>(14,397,870)</u>
Accretion of redeemable convertible preferred stock and puttable common stock	—	—	—	(2,416,505)	(4,849,607)
Net loss attributable to common stockholders	<u>\$ (12,977,486)</u>	<u>\$ (18,726,726)</u>	<u>\$ (28,078,674)</u>	<u>\$ (30,120,463)</u>	<u>\$ (19,247,477)</u>
Net loss per common share:					
Basic and diluted	<u>\$ (0.47)</u>	<u>\$ (0.70)</u>	<u>\$ (1.07)</u>	<u>\$ (1.46)</u>	<u>\$ (5.11)</u>
Weighted-average common shares outstanding:					
Basic and diluted	<u>27,415,953</u>	<u>26,718,882</u>	<u>26,152,301</u>	<u>20,623,760</u>	<u>3,763,562</u>

(1) Includes stock-based compensation as follows:

	Year Ended December 31,				
	2017	2016	2015	2014	2013
Cost of subscription revenue	\$ 767,877	\$ 810,455	\$ 766,498	\$ 289,611	\$ 80,204
Cost of professional services revenue	549,378	480,160	515,354	189,598	40,037
Sales and marketing	1,015,307	872,899	821,177	346,545	76,912
Research and development	1,404,771	1,161,422	1,077,638	486,031	62,387
General and administrative	2,340,536	2,142,954	3,279,635	1,434,988	262,044
	<u>\$ 6,077,869</u>	<u>\$ 5,467,890</u>	<u>\$ 6,460,302</u>	<u>\$ 2,746,773</u>	<u>\$ 521,584</u>

	Year Ended December 31,				
	2017	2016	2015	2014	2013
Key Metrics (unaudited):					
Recurring revenue retention (2)	103%	101%	98%	100%	102%
Adjusted EBITDA (3)	\$ 86,500	\$ (3,742,707)	\$ (10,484,749)	\$ 2,752,411	\$ 1,668,052

(2) We calculate our annualized recurring revenue retention rate by comparing, for a given quarter, subscription revenue for all customers in the corresponding quarter of the prior year to the subscription revenue from those same customers in the given quarter and calculating the average of the four quarters for the stated year.

(3) *Adjusted EBITDA*. EBITDA consists of net loss plus depreciation and amortization, interest expense (income) and income tax expense. Adjusted EBITDA consists of EBITDA plus our non-cash, stock-based compensation expense, restricted stock expense, compensation expense related to loan forgiveness for certain executives, puttable stock compensation, changes in fair value of our warrant liability and contingent consideration liability, severance costs, purchase accounting deferred revenue adjustment, acquisition compensation costs and acquisition related costs. We use adjusted EBITDA as a measure of operating performance because it assists us in comparing performance on a consistent basis across reporting periods, as it removes from our operating results the impact of our capital structure. We believe adjusted EBITDA is useful to an investor in evaluating our operating performance because it is widely used to measure a company's operating performance without regard to items such as depreciation and amortization, which can vary depending upon accounting methods and the book value of assets, and to present a meaningful measure of performance exclusive of our capital structure and the method by which assets were acquired.

Adjusted EBITDA is a financial measure that is not calculated in accordance with generally accepted accounting principles, or GAAP. We have provided below a reconciliation of adjusted EBITDA to net loss, the most directly comparable GAAP financial measure. Our use of adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are:

- although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements;
- adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- adjusted EBITDA does not reflect the potentially dilutive impact of equity-based compensation;
- adjusted EBITDA does not reflect interest or tax payments that may represent a reduction in cash available to us; and
- other companies, including companies in our industry, may calculate adjusted EBITDA differently, which reduces its usefulness as a comparative measure.

Because of these and other limitations, you should consider adjusted EBITDA together with other GAAP-based financial performance measures, including various cash flow metrics, net loss and our other GAAP results.

The following table presents a reconciliation of net loss to adjusted EBITDA for each of the periods indicated:

	Year Ended December 31,		
	2017	2016	2015
Net loss	\$ (12,977,486)	\$ (18,726,726)	\$ (28,078,674)
Depreciation and amortization expense	5,386,789	6,590,343	7,575,783
Interest expense	976,834	862,321	910,046
Interest income	(4,806)	(57,126)	(61,414)
Income tax expense	608,775	595,722	268,225
EBITDA	(6,009,894)	(10,735,466)	(19,386,034)
Stock-based compensation	6,077,869	5,467,890	6,460,302
Puttable stock compensation	—	—	54,764
Change in fair value of contingent consideration liability	18,525	30,469	(1,350,441)
Purchase accounting deferred revenue adjustment	—	69,095	1,530,719
Acquisition compensation costs	—	1,419,885	946,590
Acquisition related costs	—	5,420	1,259,351
Adjusted EBITDA	\$ 86,500	\$ (3,742,707)	\$ (10,484,749)

The following table sets forth our consolidated balance sheet data as of the dates presented:

	As of December 31,				
	2017	2016	2015	2014	2013
Consolidated Balance Sheet Data:					
Cash and cash equivalents	\$ 9,360,601	\$ 15,408,133	\$ 17,854,523	\$ 41,242,200	\$ 5,147,735
Working capital, excluding current deferred revenue	21,010,387	22,922,666	30,792,054	50,811,768	10,276,466
Total assets	99,370,045	110,489,088	114,623,744	108,230,657	70,097,121
Deferred revenue, current and long term	39,642,945	36,599,884	32,925,749	27,922,244	30,756,632
Term loan, net of discount	13,553,783	14,207,850	14,519,936	—	—
Revolving credit facility	6,000,000	6,000,000	5,000,000	—	6,978,525
Convertible preferred stock and puttable common stock	—	—	—	—	76,921,359
Total stockholders' equity (deficit)	25,499,952	32,571,478	44,496,315	64,958,707	(63,281,483)

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

The following discussion and analysis of our financial condition and results of operations and cash flows should be read in conjunction with the audited consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K. As discussed in the section titled "Cautionary Note Regarding Forward-Looking Statements," the following discussion and analysis contains forward-looking statements that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included under Part I, Item 1A elsewhere in this Annual Report on Form 10-K.

Overview

As a leading provider of cloud based global trade management (GTM) solutions, our mission is to dramatically transform the way companies conduct global trade. We help companies create value through their global supply chain by improving margins, achieving greater agility and lowering risk. We do this by creating a comprehensive digital model of the global supply chain, which enables collaboration among buyers, sellers and logistics companies. We replace manual and outdated processes with full automation of import and export activities, and we also provide rich data analytics to uncover areas for optimization, and a platform that is responsive and flexible to adapt to the ever-changing nature of global trade.

We deliver our GTM solution using a Software-as-a-Service (SaaS) model and leverage a highly flexible technology framework to quickly and efficiently meet our customers' unique requirements around the world. It can be delivered in individual modules or as a suite, depending on our customers' needs.

We sell our GTM solution to many of the largest enterprises in the world, representing diversified industry verticals including Chemical/Pharmaceutical, High Technology/Electronics, Industrial/Manufacturing, Logistics, Oil & Gas, and Retail/Apparel. Our customers pay us subscription fees and implementation service fees for the use of our solutions under agreements that typically have an initial term of three to five years.

We face a variety of challenges and risks, which we will need to address and manage as we pursue our growth strategy. In particular, the growth of our business and our future success are dependent upon many factors, including our ability to innovate in the face of a rapidly changing technology landscape and changing regulatory environment, manage our future growth effectively and in a cost effective manner, grow and retain our customer base, including our base of large enterprise customers, expand deployment of our solution within existing customers and focus on customer satisfaction. Our management team continuously focuses on these and other challenges. However, we cannot assure you that we will be successful in addressing and managing these and the many challenges and risks that we face.

Key Metrics

We regularly review the following key metrics to evaluate our business, measure our performance, identify trends in our business, prepare financial projections and make strategic decisions.

Annualized Recurring Revenue Retention. We believe our annualized recurring revenue retention rate is an important metric to measure the long-term value of customer agreements with regard to revenue and billings visibility. We calculate our annualized recurring revenue retention rate by comparing, for a given quarter, subscription revenue for all customers in the corresponding quarter of the prior year to the subscription revenue from those same customers in the given quarter and calculating the average of the four quarters for the stated year. The annualized recurring revenue retention rate for the years ended December 31, 2017, 2016, and 2015 was 103%, 101%, and 98%, respectively.

Adjusted EBITDA. EBITDA consists of net loss plus depreciation and amortization, interest expense (income) and income tax expense. Adjusted EBITDA consists of EBITDA plus our non-cash, stock-based compensation expense, puttable stock compensation, changes in fair value of contingent consideration liability, purchase accounting deferred revenue adjustment, acquisition compensation costs and acquisition related costs. We use adjusted EBITDA as a measure of operating performance because it assists us in comparing performance on a consistent basis across reporting periods, as it removes from our operating results the impact of our capital structure. We believe adjusted EBITDA is useful to an investor in evaluating our operating performance because it is widely used to measure a company's operating performance without regard to items such as depreciation and amortization, which can vary depending upon accounting methods and the book value of assets, and to present a meaningful measure of performance exclusive of our capital structure and the method by which assets were acquired.

Adjusted EBITDA is a financial measure that is not calculated in accordance with generally accepted accounting principles, or GAAP. We have provided below a reconciliation of adjusted EBITDA to net loss, the most directly comparable GAAP financial measure. Our use of adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are:

- although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements;
- adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- adjusted EBITDA does not reflect the potentially dilutive impact of equity-based compensation;
- adjusted EBITDA does not reflect interest or tax payments that may represent a reduction in cash available to us; and
- other companies, including companies in our industry, may calculate adjusted EBITDA differently, which reduces its usefulness as a comparative measure.

Because of these and other limitations, you should consider adjusted EBITDA together with other GAAP-based financial performance measures, including various cash flow metrics, net loss and our other GAAP results.

The following table provides a reconciliation of net loss to adjusted EBITDA:

	Year Ended December 31,		
	2017	2016	2015
Net loss	\$ (12,977,486)	\$ (18,726,726)	\$ (28,078,674)
Depreciation and amortization expense	5,386,789	6,590,343	7,575,783
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Income tax expense	608,775	595,722	268,225
EBITDA	(6,009,894)	(10,735,466)	(19,386,034)
Stock-based compensation	6,077,869	5,467,890	6,460,302
Puttable stock compensation	—	—	54,764
Change in fair value of contingent consideration liability	18,525	30,469	(1,350,441)
Purchase accounting deferred revenue adjustment	—	69,095	1,530,719
Acquisition compensation costs	—	1,419,885	946,590
Acquisition related costs	—	5,420	1,259,351
Adjusted EBITDA	<u>\$ 86,500</u>	<u>\$ (3,742,707)</u>	<u>\$ (10,484,749)</u>

Components of Operating Results

Revenue

Revenue. We primarily generate revenue from the sale of subscriptions and subscription-related professional services. Our subscriptions are multi-year arrangements for software and content, and in certain instances include a transactional component. We derive professional services revenue from implementation, integration and other elements associated with solution and content subscriptions.

We typically invoice subscription customers in advance on an annual basis, with payment due upon receipt of the invoice. We reflect invoiced amounts on our balance sheet as accounts receivable or as cash when collected, and as deferred revenue until earned and recognized as revenue ratably over the performance period. Accordingly, deferred revenue represents the amount billed to customers that has not yet been earned or recognized as revenue, pursuant to agreements executed during current and prior periods, and does not reflect that portion of a contract to be invoiced to customers on a periodic basis for which payment is not yet due.

Subscription Revenue. We derive our subscription revenue from fees paid to us by our customers for access to our solution. Typically, we recognize the revenue associated with subscription agreements ratably on a straight-line basis over the term of the agreement, provided all criteria required for revenue recognition have been met.

Professional Services Revenue. Professional services revenue consists primarily of fees charged for implementation, integration, training and other services associated with the subscription agreements entered into with our customers. Generally, we charge for professional services to implement our solution on a time and materials basis.

Cost of Revenue

Cost of Subscription Revenue. Cost of subscription revenue consists primarily of personnel and related costs of our hosting, support, and content teams, including salaries, benefits, bonuses, payroll taxes, stock-based compensation and allocated overhead, software license fees, hosting costs, Internet connectivity, depreciation expenses directly related to delivering our solution, as well as amortization of capitalized software development costs. We generally expense our cost of subscription revenue as we incur the costs. We believe that our cost of subscription revenue for 2018 will be higher than 2017 as we continue to scale the business.

Cost of Professional Services Revenue. Cost of professional services revenue consists primarily of personnel and related costs of our professional services team, including salaries, benefits, bonuses, payroll taxes, stock-based compensation, the costs of contracted third-party vendors, reimbursable expenses and depreciation, amortization and other allocated costs. As our personnel are employed on a full-time basis, our cost of professional services is largely fixed in the short-term, while our professional services revenue may fluctuate, leading to fluctuations in professional services gross profit. We expense our cost of professional services revenue as we incur the costs. We believe that our cost of professional services revenue for 2018 will be higher than 2017 as we continue to scale the business.

Operating Expenses

Our operating expenses are classified into three categories: sales and marketing, research and development, and general and administrative.

Sales and Marketing. Sales and marketing expenses primarily consist of personnel and related costs for our sales and marketing staff, including salaries, benefits, commissions, bonuses, payroll taxes and stock-based compensation. It also includes the costs of promotional events, corporate communications, online marketing, solution marketing and other brand-building activities, in addition to depreciation, amortization and other allocated costs. When the initial customer contract is signed and upon any renewal, we capitalize and amortize commission costs as an expense ratably over the term of the related customer contract in proportion to the recognition of the subscription revenue. If a subscription agreement is terminated, we recognize the unamortized portion of any deferred commission cost as an expense immediately upon such termination. We believe that our sales and marketing expenses for 2018, as a percentage of revenue, will be consistent with or slightly lower than 2017.

Research and Development. Research and development expenses primarily consist of personnel and related costs of our research and development staff, including salaries, benefits, bonuses, payroll taxes, stock-based compensation and costs of certain third-party contractors, as well as depreciation, amortization and other allocated costs. We capitalize development costs related to the development of our solution modules and amortize them over their useful life. We have devoted our solution modules development efforts primarily to enhancing the functionality and expanding the capabilities of our solution. We believe that our research and development expenses for 2018, as a percentage of revenue, will be consistent with or slightly lower than 2017 as the number of personnel remains steady and revenues increase.

General and Administrative. General and administrative expenses primarily consist of personnel and related costs for our executive, administrative, finance, information technology, legal, accounting and human resource staffs, including salaries, benefits, bonuses, payroll taxes and stock-based compensation, professional fees, other corporate expenses and depreciation, amortization and other allocated costs. We believe that our general and administrative expenses for 2018, as a percent of revenue, will be slightly lower than 2017.

Interest and Other Income (Expense)

Interest and other income (expense) consists primarily of interest income on our cash balances, and interest expense on outstanding debt and capital lease obligations.

Income Tax Expense

Because we have generated net losses in all periods to date and recorded a full valuation allowance against our deferred tax assets, we have historically not recorded a provision for federal or state income taxes. The tax provision for the year ended December 31, 2017 is exclusively related to actual foreign income taxes and is a result of the cost-plus transfer pricing agreements we have in place with our foreign subsidiaries, primarily in India, Germany and the United Kingdom. Realization of any of our deferred tax assets depends upon future earnings, the timing and amount of which are uncertain. Utilization of our net operating losses may be subject to annual limitations due to the ownership change rules under the Internal Revenue Code of 1986, as amended, and similar state provisions. We completed an Internal Revenue Code Section 382 study through June 2016, which concluded that we have experienced several ownership changes, causing limitations on the annual use of the net operating loss carryforwards. In the event we have future changes in ownership, the availability of net operating losses could be further limited. Additionally, in May 2016, we concluded an examination by the U.S. Internal Revenue Service, in connection with the 2012 tax year. The result of such examination was the downward adjustment of federal net operating loss carryforwards aggregating approximately \$1,200,000.

Critical Accounting Policies

We prepare our consolidated financial statements in accordance with generally accepted accounting principles in the United States. The preparation of consolidated financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from the estimates made by our management. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected. We believe that the estimates and judgments used for revenue recognition, deferred revenue, stock-based compensation, goodwill, and capitalized software costs have the greatest potential impact on our consolidated financial statements, and consider these to be our critical accounting policies and estimates.

The following critical accounting policies reflect significant judgments and estimates used in the preparation of our consolidated financial statements:

- revenue recognition;
- stock-based compensation;
- goodwill; and
- capitalized software costs.

Revenue Recognition

We primarily generate revenue from the sale of subscriptions and subscription-related services. In instances involving subscriptions, we generate subscription revenue under customer contracts with multiple elements, which are comprised of (1) subscription fees that provide the customers with access to our on-demand solution and trade content, unspecified solution and content upgrades, and customer support, (2) professional services associated with implementing our solution (primarily implementation services), and (3) transaction-related fees (including publishing services). Our initial customer contracts have contract terms typically ranging from three to five years and our renewal contracts range from one to five years in length. Typically, the customer does not take or have the right to take possession of the software supporting our on demand solution. However, in certain instances, we have customers that take possession of the software whereby it is installed on the customer's premises. Our subscription service arrangements typically may only be terminated for cause and do not contain refund provisions.

We provide our software as a service and follow the provisions of Accounting Standards Codification (ASC) Topic 605, Revenue Recognition (ASC 605) and ASC Topic 985, Software (ASC 985). We commence revenue recognition when all of the following conditions are met:

- There is persuasive evidence of an arrangement;
- The service has been or is being provided to the customer;
- The collection of the fees is probable; and
- The amount of fees to be paid by the customer is fixed or determinable.

Subscription Revenue. We recognize subscription revenue ratably over the contract terms beginning on the commencement date of each contract, which is the date the service is made available to customers. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenue, depending on whether the revenue recognition criteria have been met. We recognize transaction-related revenue as the transactions occur.

Professional Services Revenue. The majority of our professional services agreements are on a time and material basis. When these services are not combined with subscription revenue as a single unit of accounting, as discussed below, we recognize this revenue as we render the services for time and material agreements, and when the customer accepts the milestones that we achieve for fixed price agreements.

Multiple-Deliverable Arrangements. We enter into arrangements with multiple deliverables that generally include subscription, professional services (primarily implementation) as well as transaction-related fees.

We allocate revenue to each element in an arrangement based on a selling price hierarchy. The selling price for a deliverable is based on its vendor specific objective evidence (VSOE), if available, third party evidence (TPE), if VSOE is not available, or estimated selling prices (ESP), if neither VSOE nor TPE is available. As we have been unable to establish VSOE or TPE for the elements of its arrangements, we establish the ESP for each element primarily by considering the weighted average of actual sales prices of professional services sold on a standalone basis and subscription including various add-on modules if and when sold together without professional services, and other factors such as gross margin objectives, pricing practice and growth strategy. We have established processes to determine ESP and allocate revenue in multiple arrangements using ESP.

For those contracts in which our customer accesses our software via our on-demand, cloud-based solution, we account for such transactions in accordance with the ASC 605-25, Multiple-Element Arrangements. The majority of these contracts represent multiple-element arrangements, and we evaluate each element to determine whether it represents a separate unit of accounting. We recognize the consideration allocated to the subscription as revenue ratably over the contract period. The consideration allocated to professional services is recognized as the services are performed, which is typically over the first three to six months of an arrangement.

For those contracts in which the customer takes possession of the software, we account for such transactions in accordance with ASC 985, Software. We account for these agreements as subscriptions and recognize the entire arrangement fee (subscription and professional services) ratably over the term of the agreement. In addition, we do not have VSOE for any add-on professional services, and accordingly, we recognize revenue related to such add-on professional services over the remaining term of the contract.

We account for sales tax collected from customers and remitted to governmental authorities on a net basis and, therefore, we do not include them in revenue and cost of revenue in our consolidated statement of operations. We classify customer reimbursements received for direct costs paid to third parties and related expenses as revenue, in accordance with ASC 605. The amounts included in professional services revenue and cost of professional services revenue for the years ended December 31, 2017, 2016, and 2015 were \$521,875, \$585,174 and \$499,553, respectively.

Deferred Revenue. Deferred revenue represents amounts collected from (or invoiced to) customers in advance of revenue earned. Deferred revenue to be recognized in the succeeding 12 month period is included in current deferred revenue with the remaining amounts included in noncurrent deferred revenue.

Stock-Based Compensation

We recognize stock-based compensation as an expense in the consolidated financial statements and measure that cost based on the estimated fair value of the award. We recognized compensation expense based on the estimated grant date fair value using the Black Scholes option pricing model. Determining the fair value of stock-based awards at the grant date requires judgment. The determination of the grant date fair value of options using an option-pricing model is affected by our common stock fair value as well as assumptions regarding a number of other subjective variables. These variables include the fair value of our common stock, the expected term of the options, our expected stock price volatility, risk-free interest rates, and expected dividends, which are estimated as follows:

- *Fair value of our common stock.* The fair value of our common stock based on the closing price as reported on the New York Stock Exchange on the day of grant.
- *Expected term.* The expected term represents the period that our stock-based awards are expected to be outstanding. As we do not have sufficient historical experience for determining the expected term of the stock option awards granted, we have based our expected term on the simplified method, which represents the average period from vesting to the expiration of the award.
- *Expected volatility.* As we do not have a sufficient trading history for our common stock, the expected stock price volatility for our common stock was estimated by taking the average historic price volatility for industry peers based on daily price observations over a period equivalent to the expected term of the stock option grants. We did not rely on implied volatilities of traded options in our industry peers' common stock because the volume of activity was relatively low. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own common stock share price becomes available.
- *Risk-free rate.* The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.
- *Dividend yield.* We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we used an expected dividend yield of zero.

If any of the assumptions used in the Black-Scholes model change significantly, stock-based compensation for future awards may differ materially compared with the awards previously granted.

For restricted stock units granted, we determined the fair value based on the closing price of our common stock as reported on The New York Stock Exchange on the date of grant.

Goodwill

Goodwill represents the excess of the cost of an acquired business over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. At December 31, 2017, we had \$43.8 million of goodwill recorded on our consolidated balance sheet. For the purposes of impairment testing, we have determined that we have one reporting unit. A two-step impairment test of goodwill is required pursuant to ASC 350-20-35. In the first step, the fair value of the reporting unit is compared to its carrying value. If the fair value exceeds the carrying value, goodwill is not impaired and further testing is not required. If the carrying value exceeds the fair value, then the second step of the impairment test is required to determine the implied fair value of the reporting unit's goodwill. The implied fair value of goodwill is calculated by deducting the fair value of all tangible and intangible net assets of the reporting unit, excluding goodwill, from the fair value of the reporting unit as determined in the first step. If the carrying value of the reporting unit's goodwill exceeds its implied fair value, then an impairment loss must be recorded that is equal to the difference. The identification and measurement of goodwill impairment involves the estimation of the fair value of the company. The estimate of our fair value, based on the best information available as of the date of the assessment, is subjective and requires judgment, including management assumptions about expected future revenue forecasts and discount rates. We performed our annual impairment test as of December 31, 2017, and the second step was not required as the fair value exceeded the carrying value. Accordingly, our reporting unit was not at risk of failing step one of the goodwill impairment testing process.

Capitalized Software Costs

Certain development costs related to our software products are capitalized in accordance with ASC Topic 350-40, Internal-Use Software. ASC 350-40 contains the following provisions: (1) preliminary project costs are expensed as incurred; (2) all costs associated with the development of the application are to be capitalized; and (3) all costs associated with the post-implementation operation of the software shall be expensed as incurred. In addition, the costs for all upgrades and enhancements to the originally developed software may be capitalized if additional functionality is added. Accordingly, we capitalize certain software development costs, including the costs to develop solution modules or significant enhancements to existing modules, which are developed or obtained for internal use.

We capitalize software development costs when application development begins, it is probable that the project will be completed, and the software will be used as intended. Such capitalized costs are amortized on a straight-line basis over the estimated useful life of the related asset, which is generally five years. Costs associated with preliminary project stage activities, training, maintenance and all post-implementation stage activities are expensed as incurred. It is difficult to predict the amount of Internal-Use Software that will be capitalized in the future as it is project-specific and, as such, each project will be reviewed on a case-by-case basis.

Recent Accounting Pronouncements

For detailed information regarding recently issued accounting pronouncements and the expected impact on our consolidated financial statements, see Note 2, "Summary of Significant Accounting Policies" in the accompanying Notes to Consolidated Financial Statements.

Results of Operations

The following tables summarize key components of our results of operations for the periods indicated, both in dollars and as a percentage of revenue. The period-to-period comparison of financial results is not necessarily indicative of financial results to be achieved in future periods.

	Year Ended December 31,		
	2017	2016	2015
Revenue:			
Subscription	\$ 58,479,139	\$ 53,310,533	\$ 47,067,117
Professional services	20,596,971	19,850,657	20,042,803
Total revenue	79,076,110	73,161,190	67,109,920
Cost of revenue:			
Cost of subscription revenue	21,151,419	19,922,839	20,041,196
Cost of professional services revenue	16,590,148	15,813,562	16,852,844
Total cost of revenue	37,741,567	35,736,401	36,894,040
Gross profit	41,334,543	37,424,789	30,215,880
Operating expenses:			
Sales and marketing	22,526,535	22,637,984	24,200,504
Research and development	14,941,394	16,794,516	16,448,625
General and administrative	15,263,297	15,318,098	16,528,568
Total operating expenses	52,731,226	54,750,598	57,177,697
Loss from operations	(11,396,683)	(17,325,809)	(26,961,817)
Interest income	4,806	57,126	61,414
Interest expense	(976,834)	(862,321)	(910,046)
Loss before income taxes	(12,368,711)	(18,131,004)	(27,810,449)
Income tax expense	608,775	595,722	268,225
Net loss	\$ (12,977,486)	\$ (18,726,726)	\$ (28,078,674)

	Year Ended December 31,		
	2017	2016	2015
Revenue:			
Subscription	74 %	73 %	70 %
Professional services	26	27	30
Total revenue	100	100	100
Cost of revenue:			
Cost of subscription revenue (1)	36	37	43
Cost of professional services revenue (1)	81	80	84
Total cost of revenue	48	49	55
Gross profit	52	51	45
Operating expenses:			
Sales and marketing	28	31	36
Research and development	19	23	25
General and administrative	19	21	25
Total operating expenses	66	75	86
Loss from operations	(14)	(24)	(41)
Interest income	0	0	0
Interest expense	(1)	(1)	(1)
Loss before income taxes	(15)	(25)	(42)
Income tax expense	1	1	0
Net loss	(16)%	(26)%	(42)%

(1) The table shows cost of revenue as a percentage of each component of revenue.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

<i>Revenue:</i>	Year Ended December 31,		Change	
	2017	2016	\$	%
Subscription	\$ 58,479,139	\$ 53,310,533	\$ 5,168,606	9.7%
Professional services	20,596,971	19,850,657	746,314	3.8%
Total revenue	\$ 79,076,110	\$ 73,161,190	\$ 5,914,920	8.1%

Subscription Revenue. The increase was primarily related to increases in both enterprise and mid-market customers for 2017 compared to 2016. We have increased our customer count through our sales and marketing efforts.

Professional Services Revenue. The increase in professional services revenue was primarily due to projects from new customers and existing customer upgrades, which resulted in higher demand for our professional services compared to the prior year.

Total Revenue. Revenue from international customers accounted for 24% and 21% of total revenue for 2017 and 2016, respectively. For 2017, one customer accounted for 11% of our total revenue and for 2016, no single customer accounted for more than 10% of our total revenue.

<i>Cost of Revenue:</i>	Year Ended December 31,		Change	
	2017	2016	\$	%
Cost of subscription revenue	\$ 21,151,419	\$ 19,922,839	\$ 1,228,580	6.2%
Cost of professional services revenue	16,590,148	15,813,562	776,586	4.9%
Total cost of revenue	\$ 37,741,567	\$ 35,736,401	\$ 2,005,166	5.6%

Cost of Subscription Revenue. The increase was primarily for higher employee-related compensation costs of \$1.3 million related to higher average headcount, \$0.2 million for software maintenance costs, \$0.3 million for outside services and \$0.1 million for travel costs. This was offset by a decrease of \$0.6 million in depreciation, amortization and other allocated costs.

Cost of Professional Services Revenue. The increase was primarily for higher employee-related compensation costs of \$0.7 million related to higher average headcount.

<i>Operating Expenses:</i>	Year Ended December 31,		Change	
	2017	2016	\$	%
Sales and marketing	\$ 22,526,535	\$ 22,637,984	\$ (111,449)	(0.5)%
Research and development	14,941,394	16,794,516	(1,853,122)	(11.0)%
General and administrative	15,263,297	15,318,098	(54,801)	(0.4)%
Total operating expenses	\$ 52,731,226	\$ 54,750,598	\$ (2,019,372)	(3.7)%

Sales and Marketing Expenses. The decrease was primarily due to decreased costs for North America and Asia marketing events of \$0.5 million that was offset by a \$0.4 million increase for commission costs.

Research and Development Expenses. The decrease was primarily due to a decrease of \$1.4 million of contingent compensation costs in 2016 related to the former ecVision founder and a \$1.0 million decrease in employee-related compensation costs due to lower average headcount. This was offset by an increase of \$0.8 million for lower software costs capitalized compared to 2016.

General and Administrative Expenses. The decrease was primarily due to decreases in travel costs, employee-related compensation costs, foreign exchange transaction costs, and depreciation, amortization and other allocated costs totaling \$0.6 million that was offset by an increases in miscellaneous taxes of \$0.3 million and professional fees of \$0.3 million.

Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015

<i>Revenue:</i>	Year Ended December 31,		Change	
	2016	2015	\$	%
Subscription	\$ 53,310,533	\$ 47,067,117	\$ 6,243,416	13.3 %
Professional services	19,850,657	20,042,803	(192,146)	(1.0)%
Total revenue	\$ 73,161,190	\$ 67,109,920	\$ 6,051,270	9.0 %

Subscription Revenue. The increase was primarily related to increases in both enterprise and mid-market customers for 2016 compared to 2015. We have increased our customer count through our sales and marketing efforts. Also, we recognized a full year of revenue from our acquisition of ecVision in 2016 compared to ten months in 2015.

Professional Services Revenue. The decrease was primarily due to our Quick Start program implemented now for a full year, which allows new customers to implement our solution more quickly, resulting in lower professional services revenue. Also, there was less demand for our services from existing customers when compared to last year.

Total Revenue. Revenue from international customers accounted for 21% and 17% of total revenue for 2016 and 2015, respectively. For 2016 and 2015, no single customer accounted for more than 10% of our total revenue.

<i>Cost of Revenue:</i>	Year Ended December 31,		Change	
	2016	2015	\$	%
Cost of subscription revenue	\$ 19,922,839	\$ 20,041,196	\$ (118,357)	(0.6)%
Cost of professional services revenue	15,813,562	16,852,844	(1,039,282)	(6.2)%
Total cost of revenue	\$ 35,736,401	\$ 36,894,040	\$ (1,157,639)	(3.1)%

Cost of Subscription Revenue. The decrease was primarily for lower depreciation, amortization and other allocated costs of \$0.8 million offset by higher compensation related costs of \$0.6 million for new employees hired during the year.

Cost of Professional Services Revenue. The decrease was primarily for lower employee costs of \$0.5 million due to lower average headcount for the year and a \$0.4 million decrease for employee-related costs transferred to research and development as our professional services organization temporarily assisted our engineering team. Also, there was a decrease of \$0.2 million in travel and recruiting costs compared to the prior year.

Operating Expenses:	Year Ended December 31,		Change	
	2016	2015	\$	%
Sales and marketing	\$ 22,637,984	\$ 24,200,504	\$ (1,562,520)	(6.5)%
Research and development	16,794,516	16,448,625	345,891	2.1 %
General and administrative	15,318,098	16,528,568	(1,210,470)	(7.3)%
Total operating expenses	\$ 54,750,598	\$ 57,177,697	\$ (2,427,099)	(4.2)%

Sales and Marketing Expenses. The decrease was primarily due to decreased costs for North American and European marketing events of \$1.0 million, a decrease of \$0.5 million in travel costs and a decrease of \$0.2 million in depreciation, amortization and other allocated costs. Also, there was a decrease of \$1.0 million in employee costs due to lower average headcount that was offset by \$1.0 million of higher commission costs.

Research and Development Expenses. The increase was primarily due to an increase of \$0.4 million for employee-related costs transferred from our professional services organization as it temporarily assisted our engineering team, higher acquisition compensation costs of \$0.4 million and for higher depreciation, amortization and other allocated costs of \$0.2 million. This was offset by a decrease of \$0.4 million for higher software development costs capitalized, lower employee costs of \$0.2 million due to lower average headcount and lower travel costs of \$0.1 million when compared to last year.

General and Administrative Expenses. The decrease was primarily due to a decrease of \$1.5 million in professional fees and a \$1.1 million decrease in stock compensation expense. Also, there was a decrease in miscellaneous taxes of \$0.7 million and a decrease of \$0.2 million in depreciation, amortization and other allocated costs. This was offset by an increase of \$1.4 million for mark-to-market treatment of acquisition contingent consideration related to the ecVision acquisition in 2015, a \$0.5 million increase in employee costs and a \$0.2 million increase in miscellaneous costs.

Quarterly Results of Operations

The following table sets forth our unaudited operating results for each of the eight quarters preceding and including the period ended December 31, 2017 and the percentages of revenue for each line item shown. The information is derived from our unaudited financial statements. In the opinion of management, our unaudited financial statements include all adjustments, consisting only of normal recurring items, except as noted in the notes to the financial statements, necessary for a fair statement of interim periods. The financial information presented for the interim periods has been prepared in a manner consistent with our accounting policies described elsewhere and should be read in conjunction therewith. These quarterly results are not necessarily indicative of the results that may be expected for any future period.

	Three Months Ended,							
	Mar 31, 2016	Jun 30, 2016	Sep 30, 2016	Dec 31, 2016	Mar 31, 2017	Jun 30, 2017	Sep 30, 2017	Dec 31, 2017
Revenue:								
Subscription	\$ 12,438,984	\$ 12,840,208	\$ 14,079,394	\$ 13,951,947	\$ 13,901,308	\$ 14,686,744	\$ 14,944,160	\$ 14,946,927
Professional services	4,525,688	5,298,732	4,771,407	5,254,830	4,653,248	4,988,541	5,269,090	5,686,092
Total revenue	16,964,672	18,138,940	18,850,801	19,206,777	18,554,556	19,675,285	20,213,250	20,633,019
Cost of revenue:								
Cost of subscription revenue	5,049,875	4,973,849	4,964,971	4,934,144	5,380,028	5,783,131	4,903,483	5,084,777
Cost of professional services revenue	3,967,701	4,058,867	3,845,548	3,941,446	4,021,746	4,126,958	4,247,519	4,193,925
Total cost of revenue	9,017,576	9,032,716	8,810,519	8,875,590	9,401,774	9,910,089	9,151,002	9,278,702
Gross profit	7,947,096	9,106,224	10,040,282	10,331,187	9,152,782	9,765,196	11,062,248	11,354,317
Operating expenses:								
Sales and marketing	5,495,541	5,985,149	5,488,309	5,668,985	5,803,386	5,688,937	5,551,239	5,482,973
Research and development	3,887,996	3,999,649	4,231,492	4,675,379	3,535,415	3,835,729	3,830,431	3,739,819
General and administrative	3,998,636	3,547,907	3,782,591	3,988,964	3,806,707	3,923,928	3,517,187	4,015,475
Total operating expenses	13,382,173	13,532,705	13,502,392	14,333,328	13,145,508	13,448,594	12,898,857	13,238,267
Loss from operations	(5,435,077)	(4,426,481)	(3,462,110)	(4,002,141)	(3,992,726)	(3,683,398)	(1,836,609)	(1,883,950)
Interest income	21,628	29,420	4,810	1,268	805	521	1,238	2,242
Interest expense	(200,380)	(221,793)	(221,370)	(218,778)	(235,168)	(244,183)	(272,293)	(225,190)
Loss before income taxes	(5,613,829)	(4,618,854)	(3,678,670)	(4,219,651)	(4,227,089)	(3,927,060)	(2,107,664)	(2,106,898)
Income tax expense (benefit)	72,354	121,531	112,580	289,257	186,107	590,411	130,039	(297,782)
Net loss	\$ (5,686,183)	\$ (4,740,385)	\$ (3,791,250)	\$ (4,508,908)	\$ (4,413,196)	\$ (4,517,471)	\$ (2,237,703)	\$ (1,809,116)

	Three Months Ended,							
	Mar 31, 2016	Jun 30, 2016	Sep 30, 2016	Dec 31, 2016	Mar 31, 2017	Jun 30, 2017	Sep 30, 2017	Dec 31, 2017
Revenue:								
Subscription	73 %	71 %	75 %	73 %	75 %	75 %	74 %	72 %
Professional services	27	29	25	27	25	25	26	28
Total revenue	100	100	100	100	100	100	100	100
Cost of revenue:								
Cost of subscription revenue (1)	41	39	35	35	39	39	33	34
Cost of professional services revenue (1)	88	77	81	75	86	83	81	74
Total cost of revenue	53	50	47	46	51	50	45	45
Gross profit	47	50	53	54	49	50	55	55
Operating expenses:								
Sales and marketing	32	33	29	30	31	29	27	27
Research and development	23	22	22	24	19	19	19	18
General and administrative	24	20	20	21	21	20	17	19
Total operating expenses	79	75	71	75	71	68	63	64
Loss from operations	(32)	(25)	(18)	(21)	(22)	(18)	(8)	(9)
Interest income	0	0	0	0	0	0	0	0
Interest expense	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Loss before income taxes	(33)	(26)	(19)	(22)	(23)	(19)	(9)	(10)
Income tax expense (benefit)	0	1	1	2	1	3	1	(1)
Net loss	(33)%	(27)%	(20)%	(24)%	(24)%	(22)%	(10)%	(9)%

(1) The table shows cost of revenue as a percentage of each component of revenue.

We have experienced certain quarterly trends in our subscription and professional services revenues. In particular, our subscription revenue in the first quarter of certain years has been lower than the sequential fourth quarter of the prior year due to the transactional volumes associated with retail cycles.

Liquidity and Capital Resources

	Year Ended December 31,		
	2017	2016	2015
Cash provided by (used in):			
Operating activities	\$ (669,864)	\$ (165,823)	\$ (13,229,162)
Investing activities	(1,907,399)	(2,799,656)	(29,212,636)
Financing activities	(3,242,878)	1,086,700	19,250,776
December 31,			
	2017	2016	
Cash and cash equivalents	\$ 9,360,601	\$ 15,408,133	
Accounts receivable, net	16,957,044	19,661,156	

Historically, we have financed our operations through the sale of stock and borrowing from credit facilities. Our principal sources of liquidity are our cash and cash equivalents, our accounts receivable, cash from operations and borrowings from our credit facility. We bill our customers in advance for annual subscriptions, while professional services are typically billed on a monthly basis as services are performed. As a result, the amount of our accounts receivable at the end of a period is driven significantly by our annual subscription and professional services billings for the last month of the period, and our cash flows from operations are affected by our collection of amounts due from customers for subscription and professional services billings that resulted in the recognition of revenue in a prior period.

Net Cash Flows from Operating Activities

For 2017, net cash used in operating activities was \$0.7 million, which reflects our net loss of \$13.0 million, adjusted for non-cash charges of \$12.1 million consisting primarily of \$6.1 million for stock-based compensation and \$5.4 million for depreciation and amortization. Additionally, we had an increase in our working capital accounts consisting primarily of an

increase of \$3.0 million in deferred revenue, a \$1.6 million increase for accounts receivable and a \$1.3 million increase in prepaid expenses. This was offset by a decrease of \$3.0 million in accrued expenses and a decrease of \$2.4 million for the settlement of contingent acquisition compensation related to the ecVision acquisition.

For 2016, net cash used in operating activities was \$0.2 million, which reflects our net loss of \$18.7 million, adjusted for non-cash charges of \$14.1 million consisting primarily of \$5.5 million for stock-based compensation and \$6.6 million for depreciation and amortization. Additionally, we had a \$4.5 million increase in our working capital accounts consisting primarily of an increase of \$4.2 million in accrued expenses and an increase of \$3.7 million in deferred revenue. This was offset by a decrease of \$2.1 million of other liabilities and an increase of \$1.4 million in prepaid expenses and other assets.

For 2015, net cash used in operating activities was \$13.2 million, which reflects our net loss of \$28.1 million, adjusted for non-cash charges of \$13.8 million consisting primarily of \$6.5 million for stock-based compensation and \$7.6 million for depreciation and amortization. Additionally, we had a \$1.0 million increase in our working capital accounts consisting primarily of an increase of \$0.9 million in accounts receivable and a decrease of \$4.5 million in deferred revenue.

Our deferred revenue was \$39.6 million at December 31, 2017 and \$36.6 million at December 31, 2016. The increases and decreases in deferred revenue at the end of each of these periods reflect the timing of invoicing to new and existing customers offset by amortization of previously billed subscription agreements. Customers are invoiced annually in advance for their annual subscription fee and the invoices are recorded in accounts receivable and deferred revenue, which is then recognized ratably over the term of the subscription agreement. With respect to professional services fees, customers are invoiced as the services are performed, and the invoices are recorded in accounts receivable. Where appropriate based on revenue recognition criteria, professional services invoices are initially recorded in deferred revenue and then recognized ratably over the remaining term of the subscription agreement.

Net Cash Flows from Investing Activities

For 2017, net cash used in investing activities was \$1.9 million, consisting of various capital expenditures of \$0.3 million and \$1.5 million for the capitalization of software development costs. In general, our capital expenditures are for our network infrastructure to support our increasing customer base and growth in new business and for internal use, such as equipment for our employees.

For 2016, net cash used in investing activities was \$2.8 million, consisting of various capital expenditures of \$0.2 million and \$2.3 million for the capitalization of software development costs.

For 2015, net cash used in investing activities was \$29.2 million, consisting of \$25.7 million for the acquisition of ecVision (International) Inc., net of cash acquired in March 2015. Other investing activities included various capital expenditures of \$1.4 million and capitalization of software development costs for \$1.9 million.

Net Cash Flows from Financing Activities

For 2017, net cash used in financing activities was \$3.2 million and was primarily for term loan repayments of \$0.7 million, capital lease repayments of \$1.6 million and a \$1.3 million payment for contingent consideration related to the ecVision acquisition.

For 2016, net cash provided by financing activities was \$1.1 million and consists of net proceeds of \$1.0 million from our revolving credit facility and proceeds from the exercise of stock options of \$1.9 million. This was offset by term loan repayments of \$0.4 million and capital lease repayments of \$1.4 million.

For 2015, net cash provided by financing activities was \$19.3 million and consists of proceeds from our term loan of \$20.0 million, proceeds of \$5.0 million from our revolving credit facility and proceeds from the exercise of stock options of \$1.3 million. This was offset by term loan repayments of \$5.3 million and capital lease repayments of \$1.5 million.

Credit Agreement

In connection with the ecVision acquisition (Note 3 to our audited Consolidated Financial Statements included elsewhere in this report on Form 10-K), in March 2015 we entered into a credit agreement (the Credit Agreement) providing for financing comprised of (i) a senior secured term loan facility (the Term Loan) of \$20.0 million, and (ii) a senior secured revolving credit facility (the Revolver) that was amended in November 2015 to allow for a borrowing limit of \$10.0 million, and includes a \$2.0 million sublimit for the issuance of letters of credit. The Credit Agreement contains customary affirmative and negative covenants for financings of its type that are subject to customary exceptions. As of December 31, 2017, we were in compliance with all the reporting and financial covenants.

On February 15, 2017, we entered into Amendment No. 2 (the Amendment) to the Credit Agreement. The Amendment revised language in the Credit Agreement to include changes to the applicable margins with respect to Eurodollar and Base Rate loans, increased the available borrowing under the Revolver from \$10.0 million to \$15.0 million, and extended the maturity date for both the Term Loan and the Revolver to December 31, 2019.

On March 6, 2018, we entered into Amendment No. 3 (Third Amendment) to the March 4, 2015 Credit Agreement. The Third Amendment amends the definition of “Quick Liabilities” for purposes of calculating performance against the Credit Agreement covenant provisions.

The outstanding balance for the Term Loan as of December 31, 2017 was \$13.6 million, net of unaccreted discount and deferred financing costs of \$0.1 million and the outstanding balance under the Revolver was \$6.0 million. For the year ended December 31, 2017, the weighted average interest rate used was 4.48% for the Term Loan and 5.52% for the Revolver.

Off-Balance Sheet Arrangements

As of December 31, 2017, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. Other than our operating leases for office space, we do not engage in off-balance sheet financing arrangements. Our operating lease arrangements do not and are not reasonably likely to have a material current or future effect on our financial condition, results of operations, liquidity, capital resources and capital expenditures. In addition, we do not engage in trading activities involving non-exchange traded contracts. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

Capital Resources

Historically, we have incurred net losses and negative cash flows from operations and have an accumulated deficit of \$167.9 million as of December 31, 2017. Our primary sources of liquidity have been proceeds from our initial public offering, cash and cash equivalents, accounts receivable, cash from operations and borrowings from our credit facility.

Additional financing may be required for us to successfully implement our growth strategy. There can be no assurance that additional financing, if needed, can be obtained on terms acceptable to us. Our ability to maintain successful operations will depend on, among other things, new business, the retention of customers, and the effectiveness of sales and marketing initiatives. If anticipated revenue growth is not achieved, we may be required to curtail spending to reduce cash outflows.

Based upon our existing cash balance, borrowings and our projected operating results, management believes that we have adequate resources to satisfy our liquidity requirements through at least the first half of 2019.

Contractual and Commercial Commitment Summary

The following table summarizes our contractual obligations as of December 31, 2017. These contractual obligations require us to make future cash payments.

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Contractual Obligations:					
Operating lease commitments	\$ 15,101,426	\$ 4,557,966	\$ 6,935,085	\$ 2,989,901	\$ 618,474
Capital lease commitments	3,169,174	1,565,706	1,446,777	156,691	—
Term Loan	13,625,000	750,000	12,875,000	—	—
Revolving Facility	6,000,000	—	6,000,000	—	—
Total	<u>\$ 37,895,600</u>	<u>\$ 6,873,672</u>	<u>\$ 27,256,862</u>	<u>\$ 3,146,592</u>	<u>\$ 618,474</u>

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Exchange Risk. We bill our customers predominately in U.S. dollars and receive payment predominately in U.S. dollars. However, because most of our international sales are denominated in the currency of the country where the purchaser is located, as we continue to expand our direct sales presence in international regions, the portion of our accounts receivable denominated in foreign currencies may continue to increase. Historically, our greatest accounts receivable foreign currency exposure has been related to revenue denominated in Euros. In addition, we incur significant costs related to our operations in India in Rupees and since our acquisition of EasyCargo in 2013 and ecVision in 2015, we also have foreign currency risk related to our operations in China in Renminbi and in Hong Kong dollars. As a result of these factors, our results of operations and cash flows are and will increasingly be subject to fluctuations due to changes in foreign currency exchange rates.

Interest Rate Sensitivity. Interest income is sensitive to changes in the general level of U.S. interest rates. However, based on the nature and current level of our investments, which are primarily cash and cash equivalents, we believe there is no material risk of exposure. Although interest expense related to our Term Loan and Revolver is sensitive to changes in the Prime rate and the LIBOR rate, we believe that we have no material risk of exposure.

Item 8. Financial Statements and Supplementary Data

Our consolidated financial statements and accompanying notes and the report of our independent registered public accounting firm are listed in Part IV starting on page F-1.

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***

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the rules and forms, and that such information is accumulated and communicated to us, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, we recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, as ours are designed to do, and we necessarily were required to apply our judgment in evaluating whether the benefits of the controls and procedures that we adopt outweigh their costs.

As required by Rule 13a-15(b) of the Securities Exchange Act of 1934, as amended, an evaluation as of December 31, 2017 was conducted under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures, as of December 31, 2017, were effective for the purposes stated above.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the year ended December 31, 2017 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria set forth in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on the assessment, management has concluded that its internal control over financial reporting was effective as of December 31, 2017 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. GAAP. This annual report did not include an attestation report of our registered public accounting firm due to the exemption provided by the rules of the Securities and Exchange Commission for emerging growth companies.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item is incorporated by reference from information contained under the sections “Election of Directors” and “Section 16(a) Beneficial Ownership Reporting Compliance” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

Item 11. Executive Compensation

Information required by this item is incorporated by reference from information contained under the section “Executive Compensation” and “Director Compensation” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

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

Information required by this item is incorporated by reference from information contained under the section “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information required by this item is incorporated by reference from information contained under the section “Certain Relationships and Related Party Transactions” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

Item 14. Principal Accounting Fees and Services

Information with respect to this item is incorporated by reference from information under the section “Ratification of Appointment of Independent Registered Public Accounting Firm” in our Proxy Statement for the 2018 Annual Meeting of Stockholders.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Financial Statements:

Our consolidated financial statements and the Report of Independent Registered Public Accounting Firm are included herein on page F-1

(2) Financial Statement Schedules:

The financial statement schedules are omitted as they are either not applicable or the information required is presented in the financial statements and notes thereto on page F-1

(3) Exhibits:

See *Exhibit Index* immediately following the signature page of this Annual Report on Form 10-K.

Item 16. Form 10-K Summary

None.

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.

AMBER ROAD, INC.

Date: March 9, 2018

By: /s/ JAMES W. PREUNINGER

James W. Preuninger
Chief Executive Officer and Director
(Principal Executive Officer)

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u> /s/ JAMES W. PREUNINGER </u> James W. Preuninger	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 9, 2018
<u> /s/ THOMAS E. CONWAY </u> Thomas E. Conway	Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	March 9, 2018
<u> /s/ PAMELA F. CRAVEN </u> Pamela F. Craven	Director	March 9, 2018
<u> /s/ RALPH FAISON </u> Ralph Faison	Director	March 9, 2018
<u> /s/ KENNETH M. HARVEY </u> Kenneth M. Harvey	Director	March 9, 2018
<u> /s/ RUDY C. HOWARD </u> Rudy C. Howard	Director	March 9, 2018
<u> /s/ JOHN MALONE </u> John Malone	Director	March 9, 2018
<u> /s/ BARRY M. V. WILLIAMS </u> Barry M. V. Williams	Director	March 9, 2018

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference		
		Form	Exhibit	Filing Date
2.1	Merger Agreement, dated as of March 2, 2015, among ecVision (International) Inc., Project 20/20 Acquisition Corp., the Registrant and Fortis Advisors LLC.	8-K	2.1	3/6/15
3.1	Form of Amended and Restated Certificate of Incorporation of the Registrant effective March 26, 2014.	S-1/A	3.1	3/5/14
3.2	Amended and Restated Bylaws of the Registrant effective March 26, 2014.	S-1	3.2	2/10/14
4.1	Specimen Common Stock Certificate of Amber Road, Inc.	S-1/A	4.1	3/5/14
4.2	Warrant to Purchase Common Stock, issued March 27, 2007 to Orix Venture Finance LLC.	S-1	4.2	2/10/14
10.1	Data Center and General Services Agreement, dated as of November 1, 2009, between Florida Technology Managed Services, Inc. and the Registrant.	S-1	10.1	2/10/14
10.2	Amendment 1 to Data Center and General Services Agreement, dated as of November 1, 2012, between Registrant and Florida Technology Managed Services, Inc.	S-1	10.2	2/10/14
10.3	Fourth Amended and Restated Investor Rights Agreement, dated as of July 16, 2010, by and among the Registrant and the investors signatory thereto.	S-1/A	10.3	3/5/14
10.4*	Employment Agreement with James W. Preuninger, dated March 3, 2014.	S-1/A	10.4	3/5/14
10.5	Form of Change in Control Agreement.	S-1	10.6	2/10/14
10.6*	2002 Stock Option Plan, as amended.	S-1	10.7	2/10/14
10.7*	Form of Employee Stock Option Agreement under the 2002 Stock Option Plan, as amended.	S-1	10.8	2/10/14
10.8*	Form of Director Stock Option Agreement under the 2002 Stock Option Plan, as amended.	S-1	10.9	2/10/14
10.9*	2012 Omnibus Incentive Compensation Plan.	S-1	10.10	2/10/14
10.10*	Form of Stock Option Agreement for officers and employees under 2012 Omnibus Incentive Compensation Plan.	S-1/A	10.11	3/5/14
10.11*	Form of Stock Option Agreement for directors under 2012 Omnibus Incentive Compensation Plan.	S-1/A	10.12	3/5/14
10.12*	Form of Indemnification Agreement.	S-1	10.13	2/10/14
10.13	Office Lease by and between the Metropolitan Life Insurance Company and the Registrant, dated as of October 5, 1998, as amended.	S-1	10.15	2/10/14
10.14	Deed of Lease by and between MEPT 1660 International Drive LLC and the Registrant, dated as of June 14, 2011.	S-1	10.16	2/10/14
10.15	Lease Agreement by and between PFRS Crossroads Corp. and the Registrant, dated as of April 30, 2010.	S-1	10.17	2/10/14
10.16	Loan and Security Agreement, dated as of April 10, 2013, between Silicon Valley Bank and the Registrant.	S-1	10.18	2/10/14
10.17	Waiver and First Amendment to Loan and Security Agreement, dated as of December 30, 2013, between Silicon Valley Bank and the Registrant.	S-1	10.19	2/10/14
10.18	Share Purchase Agreement dated as of September 3, 2013 among Sunrise International Ltd., the Shareholder Representative Committee, the shareholders of Sunrise International Ltd., the Registrant and Amber Road Holdings, Inc.	S-1	10.20	2/10/14
10.19	Lease Deed, dated November 8, 2013, between M/s. Paliwal Overseas Private Limited and M/s. Amber Road Software Private Limited.	S-1	10.21	2/10/14
10.20*	Form of Management Severance Policy.	S-1/A	10.22	3/5/14
10.21*	Employment agreement with Kae-por Chang.	S-1/A	10.23	3/5/14
10.22‡	Amendment 2 to Data Center and General Services Agreement, dated as of November 1, 2014, between the Registrant and Florida Technology Managed Services, Inc.	10-Q	10.24	11/7/14
10.23	Credit Agreement, dated as of March 4, 2015, between the Registrant and KeyBank National Association.	8-K	10.1	3/6/15
10.24	Form of the 2015 Stock Option Award Certificate	8-K	10.1	2/25/15
10.25	Form of the 2015 Performance Share Award Certificate	8-K	10.2	2/25/15
10.26	Form of Non-Employee Director Restricted Stock Units Award Agreement.	10-K	10.28	3/13/15
10.27	Amendment No.1 to Credit Agreement, dated as of March 4, 2015, between the Registrant and KeyBank National Association.	10-Q	10.1	11/9/15
10.28*	Employment Agreement, dated May 5, 2016 between Amber Road, Inc. and James W. Preuninger	10-Q	10.1	5/9/16
21.1**	Subsidiaries of the Registrant.			
23.1**	Consent of KPMG LLP, independent registered public accounting firm.			
31.1**	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.			

31.2** Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.

Exhibit Number	Exhibit Description	Incorporated by Reference		
		Form	Exhibit	Filing Date
32.1***	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350.			
32.2***	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350.			
101.INS**	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.			
101.SCH**	XBRL Taxonomy Extension Schema Linkbase 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.			

* Indicates management contract or compensatory plan or agreement

** Filed herewith

*** Furnished herewith

‡ Portions of this exhibit have been omitted pursuant to a request for confidential treatment and have been separately filed with the Securities and Exchange Commission.

AMBER ROAD, INC. AND SUBSIDIARIES
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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Amber Road, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Amber Road, Inc. and subsidiaries (the Company) as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2003.

Philadelphia, Pennsylvania
March 9, 2018

AMBER ROAD, INC. AND SUBSIDIARIES
Consolidated Balance Sheets

	December 31,	
	2017	2016
Assets		
Current assets:		
Cash and cash equivalents	\$ 9,360,601	\$ 15,408,133
Accounts receivable, net	16,957,044	19,661,156
Unbilled receivables	884,104	314,328
Deferred commissions	4,400,015	4,420,632
Prepaid expenses and other current assets	1,715,534	1,719,612
Total current assets	33,317,298	41,523,861
Property and equipment, net	9,370,104	9,978,255
Goodwill	43,768,269	43,907,017
Other intangibles, net	4,999,885	6,148,820
Deferred commissions	6,734,326	8,046,664
Deposits and other assets	1,180,163	884,471
Total assets	\$ 99,370,045	\$ 110,489,088
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 2,650,582	\$ 2,724,591
Accrued expenses	7,589,482	14,127,304
Current portion of capital lease obligations	1,352,456	1,155,964
Deferred revenue	37,812,239	34,464,264
Current portion of term loan, net of discount	714,391	593,336
Total current liabilities	50,119,150	53,065,459
Capital lease obligations, less current portion	1,461,101	1,276,700
Deferred revenue, less current portion	1,830,706	2,135,620
Term loan, net of discount, less current portion	12,839,392	13,614,514
Revolving credit facility	6,000,000	6,000,000
Other noncurrent liabilities	1,619,744	1,825,317
Total liabilities	73,870,093	77,917,610
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Common stock, \$0.001 par value; 100,000,000 shares authorized; issued and outstanding 27,288,985 and 26,926,268 shares at December 31, 2017 and 2016, respectively	27,289	26,926
Additional paid-in capital	195,203,097	188,811,896
Accumulated other comprehensive loss	(1,822,396)	(1,336,792)
Accumulated deficit	(167,908,038)	(154,930,552)
Total stockholders' equity	25,499,952	32,571,478
Total liabilities and stockholders' equity	\$ 99,370,045	\$ 110,489,088

See accompanying notes to consolidated financial statements.

AMBER ROAD, INC. AND SUBSIDIARIES
Consolidated Statements of Operations

	Year Ended December 31,		
	2017	2016	2015
Revenue:			
Subscription	\$ 58,479,139	\$ 53,310,533	\$ 47,067,117
Professional services	20,596,971	19,850,657	20,042,803
Total revenue	<u>79,076,110</u>	<u>73,161,190</u>	<u>67,109,920</u>
Cost of revenue (1):			
Cost of subscription revenue	21,151,419	19,922,839	20,041,196
Cost of professional services revenue	16,590,148	15,813,562	16,852,844
Total cost of revenue	<u>37,741,567</u>	<u>35,736,401</u>	<u>36,894,040</u>
Gross profit	<u>41,334,543</u>	<u>37,424,789</u>	<u>30,215,880</u>
Operating expenses (1):			
Sales and marketing	22,526,535	22,637,984	24,200,504
Research and development	14,941,394	16,794,516	16,448,625
General and administrative	15,263,297	15,318,098	16,528,568
Total operating expenses	<u>52,731,226</u>	<u>54,750,598</u>	<u>57,177,697</u>
Loss from operations	<u>(11,396,683)</u>	<u>(17,325,809)</u>	<u>(26,961,817)</u>
Interest income	4,806	57,126	61,414
Interest expense	(976,834)	(862,321)	(910,046)
Loss before income taxes	<u>(12,368,711)</u>	<u>(18,131,004)</u>	<u>(27,810,449)</u>
Income tax expense	608,775	595,722	268,225
Net loss	<u>\$ (12,977,486)</u>	<u>\$ (18,726,726)</u>	<u>\$ (28,078,674)</u>
Net loss per share (Note 11):			
Basic and diluted	<u>\$ (0.47)</u>	<u>\$ (0.70)</u>	<u>\$ (1.07)</u>
Weighted-average shares outstanding (Note 11):			
Basic and diluted	<u>27,415,953</u>	<u>26,718,882</u>	<u>26,152,301</u>

(1) Includes stock-based compensation as follows:

	Year Ended December 31,		
	2017	2016	2015
Cost of subscription revenue	\$ 767,877	\$ 810,455	\$ 766,498
Cost of professional services revenue	549,378	480,160	515,354
Sales and marketing	1,015,307	872,899	821,177
Research and development	1,404,771	1,161,422	1,077,638
General and administrative	2,340,536	2,142,954	3,279,635
	<u>\$ 6,077,869</u>	<u>\$ 5,467,890</u>	<u>\$ 6,460,302</u>

See accompanying notes to consolidated financial statements.

AMBER ROAD, INC. AND SUBSIDIARIES
Consolidated Statements of Comprehensive Loss

	Year Ended December 31,		
	2017	2016	2015
Net loss	\$ (12,977,486)	\$ (18,726,726)	\$ (28,078,674)
Other comprehensive loss:			
Foreign currency translation	(485,604)	(553,583)	(175,717)
Total other comprehensive loss	(485,604)	(553,583)	(175,717)
Comprehensive loss	\$ (13,463,090)	\$ (19,280,309)	\$ (28,254,391)

See accompanying notes to consolidated financial statements.

AMBER ROAD, INC. AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2014	25,765,792	\$ 25,766	\$ 173,665,585	\$ (607,492)	\$ (108,125,152)	\$ 64,958,707
Net loss	—	—	—	—	(28,078,674)	(28,078,674)
Other comprehensive loss	—	—	—	(175,717)	—	(175,717)
Exercise of stock options	462,703	463	1,298,964	—	—	1,299,427
Issuance of common stock for vested restricted stock units	24,452	24	(24)	—	—	—
Shares related to net share settlement of equity awards	(5,500)	(5)	(22,489)	—	—	(22,494)
Stock-based compensation expense	—	—	6,460,302	—	—	6,460,302
Common stock issued for contingent consideration	13,012	13	(13)	—	—	—
Stock compensation for contingent consideration	—	—	54,764	—	—	54,764
Balance at December 31, 2015	26,260,459	26,261	181,457,089	(783,209)	(136,203,826)	44,496,315
Net loss	—	—	—	—	(18,726,726)	(18,726,726)
Other comprehensive loss	—	—	—	(553,583)	—	(553,583)
Exercise of stock options	646,639	647	1,886,935	—	—	1,887,582
Issuance of common stock for vested restricted stock units	12,664	12	(12)	—	—	—
Stock-based compensation expense	—	—	5,467,890	—	—	5,467,890
Common stock issued for contingent consideration	6,506	6	(6)	—	—	—
Balance at December 31, 2016	26,926,268	26,926	188,811,896	(1,336,792)	(154,930,552)	32,571,478
Net loss	—	—	—	—	(12,977,486)	(12,977,486)
Other comprehensive loss	—	—	—	(485,604)	—	(485,604)
Exercise of stock options	107,526	108	313,587	—	—	313,695
Issuance of common stock for vested restricted stock units	237,916	238	(238)	—	—	—
Stock-based compensation expense	—	—	6,077,869	—	—	6,077,869
Common stock issued for contingent consideration	17,275	17	(17)	—	—	—
Balance at December 31, 2017	27,288,985	\$ 27,289	\$ 195,203,097	\$ (1,822,396)	\$ (167,908,038)	\$ 25,499,952

See accompanying notes to consolidated financial statements.

AMBER ROAD, INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows

	Year Ended December 31,		
	2017	2016	2015
Cash flows from operating activities:			
Net loss	\$ (12,977,486)	\$ (18,726,726)	\$ (28,078,674)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	5,386,789	6,590,343	7,575,783
Bad debt expense	568,193	509,454	80,571
Stock-based compensation	6,077,869	5,467,890	6,460,302
Compensation related to puttable common stock	—	—	54,764
Acquisition related deferred compensation	—	1,419,885	946,590
Changes in fair value of contingent consideration liability	18,525	30,469	(1,350,441)
Accretion of debt discount	37,884	62,914	56,382
Changes in operating assets and liabilities:			
Accounts receivable and unbilled receivables	1,615,836	(1,213,717)	(1,658,964)
Prepaid expenses and other assets	1,313,029	(1,437,777)	(863,713)
Accounts payable	(166,898)	1,284,742	(316,655)
Accrued expenses	(2,988,525)	4,228,119	(304,962)
Settlement of contingent accrued compensation related to former ecVision founder	(2,366,469)	—	—
Other liabilities	(209,859)	(2,084,343)	(281,876)
Deferred revenue	3,021,248	3,702,924	4,451,731
Net cash used in operating activities	<u>(669,864)</u>	<u>(165,823)</u>	<u>(13,229,162)</u>
Cash flows from investing activities:			
Capital expenditures	(257,893)	(231,979)	(1,385,082)
Addition of capitalized software development costs	(1,458,495)	(2,286,778)	(1,926,302)
Addition of intangible assets	—	(275,000)	(275,000)
Acquisition, net of cash acquired	—	—	(25,717,078)
Cash paid for deposits	(190,752)	(118,993)	(21,989)
Decrease (increase) in restricted cash	(259)	113,094	112,815
Net cash used in investing activities	<u>(1,907,399)</u>	<u>(2,799,656)</u>	<u>(29,212,636)</u>
Cash flows from financing activities:			
Proceeds from revolving line of credit	24,350,000	20,250,000	5,000,000
Payments on revolving line of credit	(24,350,000)	(19,250,000)	—
Proceeds from term loan	—	—	20,000,000
Payments on term loan	(656,250)	(375,000)	(5,343,750)
Debt financing costs	(35,701)	—	(188,743)
Repayments on capital lease obligations	(1,556,097)	(1,425,882)	(1,493,664)
Proceeds from the exercise of stock options	313,695	1,887,582	1,299,427
Taxes paid related to net share settlement	—	—	(22,494)
Contingent consideration related to ecVision acquisition	(1,308,525)	—	—
Net cash provided by (used in) financing activities	<u>(3,242,878)</u>	<u>1,086,700</u>	<u>19,250,776</u>
Effect of exchange rate on cash and cash equivalents	<u>(227,391)</u>	<u>(567,611)</u>	<u>(196,655)</u>
Net decrease in cash and cash equivalents	(6,047,532)	(2,446,390)	(23,387,677)
Cash and cash equivalents at beginning of period	15,408,133	17,854,523	41,242,200
Cash and cash equivalents at end of period	<u>\$ 9,360,601</u>	<u>\$ 15,408,133</u>	<u>\$ 17,854,523</u>
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 938,949	\$ 790,338	\$ 858,007
Non-cash property and equipment acquired under capital lease	1,936,990	834,432	1,545,864
Non-cash property and equipment purchases in accounts payable	—	22,454	368,614
Non-cash acquisition contingent consideration	—	—	2,322,531

See accompanying notes to consolidated financial statements.

AMBER ROAD, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

(1) Background

Amber Road, Inc. (we, our or us) is a leading provider of a cloud-based global trade management solution, including modules for logistics contract and rate management, supply chain visibility and event management, international trade compliance, Global Knowledge trade content database, supply chain collaboration with overseas factories and vendors, and duty management solutions to importers and exporters, nonvessel owning common carriers (resellers), and ocean carriers. Our solution is primarily delivered using an on-demand, cloud-based, delivery model. We are incorporated in the state of Delaware and our corporate headquarters are located in East Rutherford, New Jersey. We also have offices in McLean, Virginia; Raleigh, North Carolina; Munich, Germany; Bangalore, India; Shenzhen and Shanghai, China; and Hong Kong.

(2) Summary of Significant Accounting Policies and Practices

(a) Basis of Presentation and Principles of Consolidation

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) and include our accounts and those of our wholly owned subsidiaries primarily located in India, China and Europe. All significant intercompany balances and transactions have been eliminated in consolidation.

(b) Use of Estimates

The preparation of consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Significant items subject to such estimates and assumptions include the carrying amount of intangibles and goodwill; valuation allowance for receivables and deferred income taxes; revenue; capitalization of software costs; and valuation of share-based payments. Actual results could differ from those estimates.

(c) Foreign Currency

The assets and liabilities of our foreign operations are translated into U.S. dollars at current exchange rates as of the balance sheet date, and revenues and expenses are translated at average exchange rates for the period. Resulting translation adjustments are reflected in accumulated other comprehensive loss, which is a separate component of stockholders' equity.

(d) Cash and Cash Equivalents

We consider all highly liquid investments with original maturities of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents at December 31, 2017 and 2016 consist of the following:

	December 31,	
	2017	2016
Cash	\$ 9,318,074	\$ 15,382,773
Money market accounts	42,527	25,360
	\$ 9,360,601	\$ 15,408,133

(e) Fair Value of Financial Instruments and Fair Value Measurements

Our financial instruments consist of cash equivalents, accounts receivable, accounts payable, and accrued expenses. Management believes that the carrying values of these instruments are representative of their fair value due to the relatively short-term nature of those instruments.

We follow Financial Accounting Standards Board (FASB) accounting guidance on fair value measurements for financial assets and liabilities measured on a recurring basis. ASC 820, Fair Value Measurements, among other things, defines fair value, establishes a framework for measuring fair value, and requires disclosure about such fair value measurements. Assets and liabilities measured at fair value are based on one or more of three valuation techniques provided for in the standards. The three value techniques are as follows:

- Market Approach — Prices and other relevant information generated by market transactions involving identical or comparable assets and liabilities;
- Income Approach — Techniques to convert future amounts to a single present amount based on market expectations (including present value techniques and option pricing models); and

AMBER ROAD, INC. AND SUBSIDIARIES
Notes to Consolidated Financial Statements

Cost Approach — Amount that currently would be required to replace the service capacity of an asset (often referred to as replacement cost).

The standards clarify that fair value is an exit price, representing the amount that would be received to sell an asset, based on the highest and best use of the asset, or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for evaluating such assumptions, the standards establish a three-tier fair value hierarchy, which prioritizes the inputs in measuring fair value as follows:

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

Level 2 — Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; or

Level 3 — Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions about what market participants would use in pricing the asset or liability.

The following tables provide the financial assets and liabilities carried at fair value measured on a recurring basis as of December 31, 2017 and 2016:

December 31, 2017	Fair Value Measurements at Reporting Date Using			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash equivalents - money market accounts	\$ 42,527	\$ 42,527	\$ —	\$ —
Restricted cash - money market accounts	56,400	56,400	—	—
Total assets measured at fair value on a recurring basis	<u>\$ 98,927</u>	<u>\$ 98,927</u>	<u>\$ —</u>	<u>\$ —</u>
December 31, 2016				
Assets:				
Cash equivalents - money market accounts	\$ 25,360	\$ 25,360	\$ —	\$ —
Restricted cash - money market accounts	56,141	56,141	—	—
Total assets measured at fair value on a recurring basis	<u>\$ 81,501</u>	<u>\$ 81,501</u>	<u>\$ —</u>	<u>\$ —</u>
Liabilities:				
Acquisition contingent consideration liability	\$ 1,290,000	\$ —	\$ —	\$ 1,290,000
Total liabilities measured at fair value on a recurring basis	<u>\$ 1,290,000</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,290,000</u>

Acquisition contingent consideration liability is measured at fair value and is based on significant inputs not observable in the market, which represents a Level 3 measurement. The valuation of contingent consideration uses assumptions we believe would be made by a market participant. In June 2017, as required by the ecVision (International) Inc. (ecVision) acquisition agreement (see Note 3), the acquisition contingent consideration liability was paid in full. The reconciliation of the acquisition contingent consideration liability measured at fair value on a recurring basis using unobservable inputs (Level 3) is as follows:

Balance at December 31, 2015	\$ 1,259,531
Mark to estimated fair value recorded as general and administrative expense	<u>30,469</u>
Balance at December 31, 2016	1,290,000
Mark to estimated fair value recorded as general and administrative expense	<u>18,525</u>
Acquisition contingent consideration liability paid	<u>(1,308,525)</u>
Balance at December 31, 2017	<u>\$ —</u>

(f) Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is our best estimate of the amount of probable credit losses in our existing accounts receivable. We determine the allowance based on historical write-off experience, the industry, and the economy. We review our allowance for doubtful accounts monthly. Past-due balances over 90 days and over a specified amount are reviewed individually for collectibility. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. We do not have any off-balance-sheet credit exposure related to our customers. Typically, we record unbilled receivables for contracts on which revenue has been recognized, but for which the customer has not yet been billed.

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The table below presents the changes in the allowance for doubtful accounts:

	Year Ended December 31,		
	2017	2016	2015
Beginning balance	\$ 410,560	\$ 153,543	\$ 138,715
Provision for doubtful accounts	568,193	509,454	80,571
Acquisition	—	—	3,047
Write-offs, net of recoveries	(447,858)	(252,437)	(68,790)
Ending balance	<u>\$ 530,895</u>	<u>\$ 410,560</u>	<u>\$ 153,543</u>

(g) Major Customers and Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents and trade receivables. Our customer base is principally comprised of enterprise and mid-market companies within industries including Chemical/Pharmaceutical, High Technology/Electronics, Industrial/Manufacturing, Logistics, Oil & Gas, and Retail/Apparel. We do not require collateral from our customers. As of December 31, 2017, and 2016, no single customer accounted for more than 10% of our accounts receivable. For the year ended December 31, 2017, one customer accounted for 11% of our total revenue. For the years ended December 31, 2016 and 2015, no single customer accounted for more than 10% of our total revenue.

(h) Prepaid Expense and Other Current Assets

Prepaid expenses and other current assets as of December 31, 2017 and 2016 primarily consist of annual prepaid license and maintenance fees related to our internal software licenses, and prepaid marketing fees.

(i) Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Equipment acquired under capital leases is recorded at the present value of the minimum lease payments and subsequently depreciated based on its classification below.

Depreciation on property and equipment is calculated on the straight-line method over the estimated useful lives of the assets as follows:

<u>Asset Classification</u>	<u>Estimated Useful Life</u>
Computers and equipment	3 – 5 years
Software	3 – 5 years
Furniture and fixtures	7 years
Leasehold improvements	Shorter of the estimated useful life or the remaining lease term

(j) Goodwill

Goodwill represents the excess of costs over the fair value of the assets of businesses acquired. Goodwill and intangible assets acquired in a purchase business combination and determined to have an indefinite useful life are not amortized, but instead are tested for impairment at least annually in accordance with the provisions of ASC 350, Intangibles — Goodwill and Other (ASC 350). To accomplish this, we are required to identify our reporting units and determine the carrying value of each reporting unit by assigning the assets and liabilities, including the existing goodwill and intangible assets, to those reporting units as of the annual impairment testing date. Management has determined that we operate in one reporting unit.

Management is required to determine the fair value of our reporting unit and compare it to the carrying amount of the reporting unit on the annual impairment testing date. To the extent the carrying amount of the reporting unit exceeds the fair value of the reporting unit, we would be required to perform the second step of the annual impairment test, as this is an indication that the reporting unit goodwill may be impaired. We performed our annual impairment test as of December 31, 2017, and the second step was not required as the fair value exceeded the carrying value. Accordingly, our reporting unit was not at risk of failing step one of the goodwill impairment testing process.

(k) Other Intangibles

Other intangibles, net of accumulated amortization, are primarily the result of the allocation of the purchase price related to businesses acquired. Each intangible asset acquired is being amortized on a basis consistent with the utilization of the assets over their estimated useful lives and is reviewed for impairment in accordance with ASC 350.

AMBER ROAD, INC. AND SUBSIDIARIES

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(l) Deposits and Other Assets

Deposits and other assets mainly consist of rental security deposits.

(m) Impairment of Long-Lived Assets

In accordance with ASC 350, Long-Lived Assets, such as property and equipment and purchased intangibles subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, then an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset. During the years ended December 31, 2017, 2016, and 2015, management believes that no revision of the remaining useful lives or write-down of long-lived assets is required.

(n) Income Taxes

Income taxes are accounted for under the provisions of ASC Topic 740, Income Taxes (ASC 740). Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

We recognize the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

(o) Revenue

We primarily generate revenue from the sale of subscriptions and subscription-related professional services. In instances involving subscriptions, revenue is generated under customer contracts with multiple elements, which are comprised of (1) subscription fees that provide the customers with access to our on-demand application and content, unspecified solution and content upgrades, and customer support, (2) professional services associated with consulting services (primarily implementation services), and (3) transaction-related fees (including publishing services). Our initial customer contracts have contract terms from, typically, 3 years to 5 years in length. Typically, the customer does not take possession of the software nor does the customer have the right to take possession of the software supporting the on-demand application service. However, in certain instances, we have customers that take possession of the software whereby the application is installed on the customer's premises. Our subscription service arrangements typically may only be terminated for cause and do not contain refund provisions.

We provide our software as a service and follow the provisions of ASC Topic 605, Revenue Recognition (ASC 605) and ASC Topic 985, Software (ASC 985). We commence revenue recognition when all of the following conditions are met:

- There is persuasive evidence of an arrangement;
- The service has been or is being provided to the customer;
- The collection of the fees is probable; and
- The amount of fees to be paid by the customer is fixed or determinable.

The subscription fees typically begin the first month following contract execution, whether or not we have completed the solution's implementation. In addition, typically, any services performed by us for our customers are not essential to the functionality of our products.

Subscription Revenue

Subscription revenue is recognized ratably over contract terms beginning on the commencement date of each contract, which is the date our service is made available to customers. Typically, amounts that have been invoiced are recorded in accounts receivable and in deferred revenue or revenue, depending on whether the revenue recognition criteria have been met. Transaction-related revenue is recognized as the transactions occur.

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Professional Services Revenue

The majority of professional services contracts are on a time and material basis. When these services are not combined with subscription revenue as a single unit of accounting, as discussed below, this revenue is recognized as the services are rendered for time and material contracts, and when the milestones are achieved and accepted by the customer for fixed price contracts.

Multiple-Deliverable Arrangements

We enter into arrangements with multiple deliverables that generally include subscription, professional services (primarily implementation) as well as transaction-related fees.

We allocate revenue to each element in an arrangement based on a selling price hierarchy. The selling price for a deliverable is based on its vendor specific objective evidence (VSOE), if available, third party evidence (TPE), if VSOE is not available, or estimated selling prices (ESP), if neither VSOE nor TPE is available. As we have been unable to establish VSOE or TPE for the elements of our arrangements, we establish the ESP for each element primarily by considering the weighted average of actual sales prices of professional services sold on a standalone basis and subscription including various add-on modules if and when sold together without professional services, and other factors such as gross margin objectives, pricing practice and growth strategy. We have established processes to determine ESP and allocate revenue in multiple-deliverable arrangements using ESP.

For those contracts in which the customer accesses our software via an on-demand application, we account for these contracts in accordance with ASC 605-25, Revenue Recognition—Multiple-Element Arrangements. The majority of these agreements represent multiple-element arrangements, and we evaluate each element to determine whether it represents a separate unit of accounting. The consideration allocated to subscription is recognized as revenue ratably over the contract period. The consideration allocated to professional services is recognized as the services are performed, which is typically over the first 3 months to 6 months of an arrangement.

For those contracts in which the customer takes possession of the software, we account for such transactions in accordance with ASC 985, Software. We account for these contracts as subscriptions and recognize the entire arrangement fee (subscription and services) ratably over the term of the agreement. In addition, as we do not have VSOE for services, any add-on services entered into during the term of the subscription are recognized over the remaining term of the agreement.

Other Revenue Items

Sales tax collected from customers and remitted to governmental authorities is accounted for on a net basis and, therefore, is not included in revenue and cost of revenue in the condensed consolidated statements of operations. We classify customer reimbursements received for direct costs paid to third parties and related expenses as revenue, in accordance with ASC 605. The amounts of such customer reimbursements included in professional services revenue and cost of professional services revenue is as follows:

	Year Ended December 31,		
	2017	2016	2015
Customer reimbursements	\$ 521,875	\$ 585,174	\$ 499,553

Deferred Revenue

Deferred revenue represents amounts collected from (or invoiced to) customers in advance of revenue earned. Deferred revenue to be recognized in the succeeding 12 month period is included in current deferred revenue with the remaining amounts included in noncurrent deferred revenue.

(p) Cost of Revenue

Cost of subscription revenue. Cost of subscription revenue consists primarily of personnel and related costs of our hosting, support, and content teams, including salaries, benefits, bonuses, payroll taxes, stock-based compensation and allocated overhead, as well as software license fees, hosting costs, Internet connectivity, and depreciation expenses directly related to delivering solutions, as well as amortization of capitalized software development costs. As we add data center capacity and personnel in advance of anticipated growth, our cost of subscription revenue may increase. Our cost of subscription revenue is generally expensed as the costs are incurred.

Cost of professional services revenue. Cost of professional services revenue consists primarily of personnel and related costs, including salaries, benefits, bonuses, payroll taxes, stock-based compensation, the costs of contracted

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third-party vendors, reimbursable expenses and allocated overhead. As our personnel are employed on a full-time basis, our cost of professional services is largely fixed in the short term, while our professional services revenue may fluctuate, leading to fluctuations in professional services gross profit. Cost of professional services revenue is generally expensed as costs are incurred.

(q) Deferred Commissions

We defer commission costs that are incremental and directly related to the acquisition of customer contracts. Commission costs are accrued and deferred upon execution of the sales contract by the customer. Payments to sales personnel are made shortly after the receipt of the related customer payment. Deferred commissions are amortized over the term of the related noncancelable customer contract and are recoverable through the related future revenue streams. Our commission costs deferred and amortized in the period are as follows:

	Year Ended December 31,		
	2017	2016	2015
Commission costs deferred	\$ 3,855,517	\$ 6,436,699	\$ 4,102,533
Commission costs amortized	5,188,472	4,744,353	3,556,301

(r) Stock-Based Compensation

We recognize stock-based compensation as an expense in the consolidated financial statements and measure that cost based on the estimated grant-date fair value using the Black-Scholes option pricing model.

(s) Segments

We have one operating segment. Our Chief Operating Decision Maker (CODM) is our Chief Executive Officer, who manages operations on a consolidated basis for purposes of allocating resources. When evaluating performance and allocating resources, the CODM reviews financial information presented on a consolidated basis.

(t) Geographic Information

Revenue by geographic location based on billing address of our customers is as follows:

Country	Year Ended December 31,		
	2017	2016	2015
United States	\$ 59,905,306	\$ 57,586,112	\$ 55,372,259
International	19,170,804	15,575,078	11,737,661
Total revenue	\$ 79,076,110	\$ 73,161,190	\$ 67,109,920

No single country other than the United States had revenue greater than 10% of total revenue for the years ended December 31, 2017, 2016, and 2015.

Long-lived assets by geographic area is as follows:

Country	December 31,	
	2017	2016
United States	\$ 8,535,281	\$ 8,881,844
International	834,823	1,096,411
Total long-lived assets	\$ 9,370,104	\$ 9,978,255

(u) Recent Accounting Pronouncements

In January 2017, the FASB issued Accounting Standards Update (ASU) No. 2017-04, "Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which removes Step 2 of the goodwill impairment test. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. This ASU is effective for interim and annual reporting periods beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. The adoption of this standard is not expected to have a material effect on our consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, "Restricted Cash", which amends ASC 230, Statement of Cash Flows. This ASU requires that a statement of cash flows explain the change during the reporting period in the total of cash, cash equivalents, and restricted cash or restricted cash equivalents. The effective date will be the first

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quarter of 2018, with early adoption permitted, and will be adopted using a retrospective transition approach. The adoption of this standard is not expected to have a material effect on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, "Classification of Certain Cash Receipts and Cash Payments", which amends ASC 230, Statement of Cash Flows. This ASU provides guidance on the statement of cash flows presentation of certain transactions where diversity in practice exists. The effective date will be the first quarter of 2018, with early adoption permitted. The adoption of this standard is not expected to have a material effect on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)." The standard requires lessees to recognize lease assets and lease liabilities on the balance sheet and requires expanded disclosures about leasing arrangements. The effective date of the new standard for public companies is for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. We are currently evaluating the effect that the updated standard will have on our consolidated financial statements but believe the most significant changes will be related to the recognition of new right-of-use assets and lease liabilities on our balance sheet for real estate operating leases.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)", a new accounting standard that requires recognition of revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which an entity expects to be entitled in exchange for those goods or services. The FASB has also issued several updates to ASU 2014-09. The new standard supersedes U.S. GAAP guidance on revenue recognition and requires the use of more estimates and judgments than the present standards. It also requires additional disclosures regarding the nature, amount, timing and uncertainty of cash flows arising from contracts with customers.

In the fourth quarter of 2017, we finalized our assessment of the new standard, including completing our contract reviews and our evaluation of the incremental costs of obtaining a contract. Based on our assessment, we will adopt the new revenue guidance effective January 1, 2018, by recognizing the cumulative effect of initially applying the new standard as an adjustment to the opening balance of retained earnings.

The adoption of the new standard will reduce revenue due to the loss of services revenue from professional services billings delivered as of December 31, 2017 for on-premise installations of our software. Under the previous standard, revenue from these billings were deferred and amortized ratably over the subscription term of the related contract. Under the new standard, billings for professional services related to on-premise software installations will be recognized as revenue as services are performed. As the professional services were delivered previous to December 31, 2017, the amount included in deferred revenue as of that date will not be recognized in 2018 and beyond.

Expenses under the new standard will be reduced as the result of amortizing capitalized customer acquisition costs over an estimate of customer life, whereas, under the previous standard, the initial customer contract term was used for the amortization period.

(3) Acquisition

In March 2015, we acquired ecVision, a cloud-based provider of global sourcing and collaborative supply chain solutions for brand-focused companies. ecVision offers a cloud-based supply chain collaboration platform that optimizes product lifecycle and supply chain processes and their products help customers effectively manage their relationships with product suppliers, raw material vendors, product testing and social compliance audit firms, and global logistics companies. The acquisition of ecVision expands our suite of global supply chain capabilities, allowing us to offer more services at the starting point of the global supply chain and providing greater market differentiation. The acquisition of ecVision was accounted for under the purchase method of accounting and its operating results are included in the accompanying consolidated financial statements from the date of acquisition. As required per the acquisition agreement, we paid contingent consideration of \$3,675,000 to ecVision's former equityholders in June 2017.

The revenue and net loss of the combined entity as if the acquisition date had been January 1, 2015 are as follows:

<u>Supplemental pro forma information (unaudited):</u>	<u>Year Ended December 31, 2015</u>
Revenue	\$ 69,060,082
Net loss	(29,514,360)

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(4) Consolidated Balance Sheet Components

Components of property and equipment, accrued expenses, deferred revenue and other noncurrent liabilities is as follows:

(a) Property and Equipment

	December 31,	
	2017	2016
Computer software and equipment	\$ 14,296,247	\$ 15,053,746
Software development costs	13,980,872	14,938,090
Furniture and fixtures	1,741,918	1,959,854
Leasehold improvements	2,546,686	2,930,390
Total property and equipment	32,565,723	34,882,080
Less: accumulated depreciation and amortization	(23,195,619)	(24,903,825)
Total property and equipment, net	\$ 9,370,104	\$ 9,978,255

Depreciation and amortization expense for the years ended December 31, 2017, 2016, and 2015 were \$4,271,381, \$5,068,786, and \$6,268,537, respectively.

Certain development costs of our software solution are capitalized in accordance with ASC Topic 350-40, Internal Use Software, which outlines the stages of computer software development and specifies when capitalization of costs is required. Projects that are determined to be in the development stage are capitalized and amortized over their useful lives of five years. Projects that are determined to be within the preliminary stage are expensed as incurred.

Information related to capitalized software costs is as follows:

	Year Ended December 31,		
	2017	2016	2015
Software costs capitalized	\$ 1,458,495	\$ 2,286,778	\$ 1,926,302
Software costs amortized ⁽¹⁾	2,143,039	1,970,150	2,789,481

⁽¹⁾ Included in cost of subscription revenue on the accompanying consolidated statements of operations.

	December 31,	
	2017	2016
Capitalized software costs not yet subject to amortization	\$ 824,738	\$ 984,568

(b) Accrued Expenses

	December 31,	
	2017	2016
Accrued bonus	\$ 1,980,218	\$ 2,717,625
Accrued commission	1,901,132	4,188,006
Deferred rent	380,077	263,404
Accrued professional fees	712,345	917,144
Accrued taxes	805,555	549,740
Accrued contingent consideration and acquisition compensation	—	3,647,475
Other accrued expenses	1,810,155	1,843,910
Total	\$ 7,589,482	\$ 14,127,304

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(c) *Deferred revenue*

	December 31,	
	2017	2016
Current:		
Subscription revenue	\$ 35,247,750	\$ 32,833,795
Professional services revenue	2,564,489	1,630,469
Total current	<u>37,812,239</u>	<u>34,464,264</u>
Noncurrent:		
Subscription revenue	412,608	386,206
Professional services revenue	1,418,098	1,749,414
Total noncurrent	<u>1,830,706</u>	<u>2,135,620</u>
Total deferred revenue	<u>\$ 39,642,945</u>	<u>\$ 36,599,884</u>

Deferred revenue from subscriptions represents amounts collected from (or invoiced to) customers in advance of earning subscription revenue. Typically, we bill our annual subscription fees in advance of providing the service. Deferred revenue from professional services represents revenue that is being deferred and amortized over the remaining term of the related subscription contract related to customers who have taken possession of the software. See note 2(o).

(5) Goodwill and Other Intangibles

Other intangibles are comprised of the following:

	Amortization Period	December 31,	
		2017	2016
Acquired technology	3 - 8 years	\$ 6,317,600	\$ 6,317,600
Customer related intangibles	10 - 15 years	3,960,200	3,960,200
Contract backlog	2 years	940,400	940,400
Trademarks and licenses	5 - 7 years	1,193,700	1,193,700
Patents and other	2.3 years	41,741	93,719
		<u>12,453,641</u>	<u>12,505,619</u>
Less: accumulated amortization		<u>(7,453,756)</u>	<u>(6,356,799)</u>
		<u>\$ 4,999,885</u>	<u>\$ 6,148,820</u>

Amortization expense was \$1,115,408, \$1,521,557, and \$1,307,246 for the years ended December 31, 2017, 2016, and 2015, respectively.

The estimated future amortization expense of other intangibles as of December 31, 2017 is as follows:

2018	\$ 1,037,972
2019	1,031,203
2020	929,606
2021	879,600
2022	809,719
2023 and thereafter	271,785
	<u>\$ 4,959,885</u>

The rollforward of goodwill is as follows:

Balance at December 31, 2015	\$ 43,913,185
2016 activity	(6,168)
Balance at December 31, 2016	<u>43,907,017</u>
2017 activity	(138,748)
Balance at December 31, 2017	<u>\$ 43,768,269</u>

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(6) Income Taxes

Loss before income taxes and income tax expense is comprised of the following:

	Year Ended December 31,		
	2017	2016	2015
Loss before income taxes:			
Domestic	\$ (10,156,858)	\$ (14,562,851)	\$ (21,560,050)
Foreign	(2,211,853)	(3,568,153)	(6,250,399)
	<u>\$ (12,368,711)</u>	<u>\$ (18,131,004)</u>	<u>\$ (27,810,449)</u>
Current provision:			
Federal	\$ —	\$ —	\$ 60,773
State	39,396	735	27,438
Foreign	569,379	594,987	372,394
	<u>\$ 608,775</u>	<u>\$ 595,722</u>	<u>\$ 460,605</u>
Deferred provision:			
Federal	\$ —	\$ —	\$ —
State	—	—	—
Foreign	—	—	(192,380)
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (192,380)</u>

A reconciliation of the statutory U.S. federal tax rate to our effective rate is as follows:

	Year Ended December 31,		
	2017	2016	2015
Statutory U.S. federal tax rate (benefit)	(35.0)%	(35.0)%	(35.0)%
State income taxes, net of federal benefit	0.1	0.1	0.1
Foreign taxes	6.5	4.3	5.6
Stock-based compensation	(1.6)	(3.3)	0.1
Acquisition related expenses	—	—	1.6
Effect of tax reform	108.7	—	—
Change in valuation allowance	(77.0)	37.5	22.9
Non-deductible expenses and other	3.2	(0.3)	5.7
Effective tax rate	<u>4.9 %</u>	<u>3.3 %</u>	<u>1.0 %</u>

Deferred tax assets and liabilities are recognized for the expected future tax consequences of events that have been recognized in the financial statements or tax returns. A valuation allowance is provided for deferred tax assets if it is more likely than not that these items will not be realized. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. We recorded a valuation allowance in the amount of \$25,347,108 and \$34,212,128 as of December 31, 2017 and 2016, respectively, as management believes it is more likely than not that we will not realize our net deferred tax assets. The net change in the valuation allowance during the years ended December 31, 2017 and 2016 was \$(8,865,020), and \$7,101,581, respectively.

We have subsidiaries in India, the United Kingdom, Hong Kong and China. The India entity is treated as a branch for U.S. tax purposes. As such, all income attributable to the Indian branch is currently recognized in the U.S. The India entity also pays taxes locally in India. The foreign current taxes consist of taxes paid locally in the United Kingdom and India. The state current taxes consist of taxes paid for statutory minimum taxes as well as state taxes for a subsidiary.

AMBER ROAD, INC. AND SUBSIDIARIES
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Deferred tax assets and liabilities are comprised of the following:

	December 31,	
	2017	2016
Current deferred tax asset:		
Accrued bonuses	\$ 393,274	\$ 888,022
Accounts receivable reserve	72,147	154,230
Other	145,826	350,887
Non-Current deferred tax asset:		
Deferred revenue	1,048,179	1,410,565
NOLs	24,720,025	33,611,543
Other	3,411,274	4,238,400
Deferred tax assets	<u>\$ 29,790,725</u>	<u>\$ 40,653,647</u>
Current deferred tax liability:		
	Deferred commissions \$ (2,171,927)	\$ (3,119,841)
Non-current deferred tax liability:		
Intangibles	(635,723)	(814,819)
Fixed assets	(1,619,083)	(2,481,104)
Other	\$ (16,884)	\$ (25,755)
Deferred tax liabilities	<u>\$ (4,443,617)</u>	<u>\$ (6,441,519)</u>
Less: valuation allowance	<u>\$ (25,347,108)</u>	<u>\$ (34,212,128)</u>
Total	<u>\$ —</u>	<u>\$ —</u>

We have a federal net operating loss (NOL) carryforward of \$90,901,000 and \$82,141,000 as of December 31, 2017 and 2016, respectively. The federal NOL carryforward will begin to expire in 2019. These NOLs may be subject to limitation under Internal Revenue Code Section 382 should there be a greater than 50% ownership change as determined under the regulations.

Under IRC section 382 of the Internal Revenue Code substantial changes in ownership may limit the amount of net operating loss carryforwards that may be utilized annually in the future to offset taxable income. We have completed an Internal Revenue Code section 382 study through June 30, 2016, which concluded that we have experienced several ownership changes, causing limitations on the annual use of the net operating loss carryforwards. Provided there is sufficient taxable income, \$2,131,290 of the net operating loss carry forwards are expected to expire without utilization. Additionally, our ability to use our net operating loss carryforwards to reduce future taxable income may be further limited as a result of any future equity transactions, including, but not limited to, an issuance of shares of stock or sales of common stock by our existing stockholders.

For state income tax purposes, we have net operating loss carryforwards in a number of jurisdictions in varying amounts and with varying expiration dates from 2017 through 2037.

Tax benefits of uncertain tax positions are recognized only if it is more likely than not that we will be able to sustain a position taken on an income tax return. We have no liability for uncertain positions. Interest and penalties, if any, related to unrecognized tax benefits, would be recognized as income tax expense.

We file income tax returns in the U.S. federal jurisdiction and various state jurisdictions. Tax years 2013 and forward remain open for examination for federal tax purposes and tax years 2012 and forward remain open for examination for our more significant state tax jurisdictions. To the extent utilized in future years' tax returns, net operating loss carryforwards at December 31, 2017 will remain subject to examination until the respective tax year is closed. In July 2014, we were notified by the Internal Revenue Service that we had been selected at random for a compliance research examination related to the year ended December 31, 2012. In May 2016, they concluded their examination and the result of such examination was the adjustment of federal net operating loss carryforwards aggregating approximately \$1,200,000.

On December 22, 2017, H.R. 1 (also, known as the Tax Cuts and Jobs Act (the "Act")) was signed into law. Among its numerous changes to the Internal Revenue Code, the Act reduces U.S. federal corporate tax rate from 35% to 21%. As a result, we believe that the most significant impact on our consolidated financial statements will be reduction of approximately

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\$13,400,000 for the deferred tax assets related to net operating losses and other deferred tax assets. Such reduction was offset by an equal reduction to our valuation allowance. Additionally, we have investments in various foreign subsidiaries. At December 31, 2017 and November 2, 2017, the cumulative earnings and profits of these entities combined were negative. Accordingly, we are not liable for the transition tax enacted under the Act.

We have completed the accounting for the tax impact of the Act as of December 31, 2017 and have recorded no provisional amounts.

(7) Leases

We have several noncancelable operating leases that expire through 2024. These leases generally contain renewal options for periods ranging from three to five years and require us to pay all executory costs such as maintenance and insurance. Rental expense for operating leases for the years ended December 31, 2017, 2016, and 2015 was approximately \$3,687,000, \$3,697,000, and \$3,564,000 respectively, and is allocated to various line items in the consolidated statements of operations.

The carrying value of assets recorded under capital leases was \$2,691,383 and \$2,159,850 as of December 31, 2017 and 2016, respectively, which includes accumulated amortization of \$6,864,443 and \$5,524,216, respectively. Amortization of assets held under capital leases is allocated to various line items in the consolidated statements of operations.

Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) and future minimum capital lease payments as of December 31, 2017 are as follows:

	Capital Leases	Operating Leases
2018	\$ 1,565,706	\$ 4,557,966
2019	1,079,503	4,138,827
2020	367,274	2,796,258
2021	101,559	1,801,713
2022	55,132	1,188,188
2023 and thereafter	—	618,474
Total minimum lease payments	3,169,174	\$ 15,101,426
Less amount representing interest	(355,617)	
Present value of net minimum capital lease payments	2,813,557	
Less current installments of obligations under capital leases	(1,352,456)	
Obligations under capital leases excluding current installments	\$ 1,461,101	

(8) Debt

In connection with the ecVision acquisition (Note 3), in March 2015 we entered into a credit agreement providing for financing comprised of (i) a senior secured term loan facility (the Term Loan) of \$20,000,000, and (ii) a senior secured revolving credit facility (the Revolver), that was amended in November 2015 to allow for a borrowing limit of \$10,000,000, and includes a \$2,000,000 sublimit for the issuance of letters of credit. The maturity date of the credit agreement was March 4, 2018. The credit agreement contains customary affirmative and negative covenants for financings of its type that are subject to customary exceptions. As of December 31, 2017, we were in compliance with all the reporting and financial covenants.

On February 15, 2017, we entered into Amendment No. 2 (the Amendment) to the Credit Agreement. The Amendment revised language in the Credit Agreement to include changes to the applicable margins with respect to Eurodollar and Base Rate loans, increased the available borrowing under the Revolver from \$10,000,000 to \$15,000,000, and extended the maturity date for both the Term Loan and the Revolver to December 31, 2019.

On March 6, 2018, we entered into Amendment No. 3 (Third Amendment) to the March 4, 2015 Credit Agreement. The Third Amendment amends the definition of “Quick Liabilities” for purposes of calculating performance against the Credit Agreement covenant provisions.

The outstanding balance for the Term Loan as of December 31, 2017 was \$13,553,783, net of unaccreted discount and deferred financing costs of \$71,217 and the outstanding balance under the Revolver was \$6,000,000. For the period ended December 31, 2017, the weighted average interest rate used was 4.48% for the Term Loan and 5.52% for the Revolver.

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The following table reflects the schedule of principal payments for the Term Loan as of December 31, 2017:

	Principal Payments
2018	\$ 750,000
2019	12,875,000
	<u>\$ 13,625,000</u>

(9) Stockholders' Equity

Common Stock

In accordance with our Certificate of Incorporation, as amended and restated, we are authorized to issue 100,000,000 shares of \$0.001 par value common stock. Each outstanding share of common stock entitles the holder to one vote. The holders of common stock are entitled to receive dividends, subject to preferential rights by holders of our preferred stock and if declared by our board of directors. As of December 31, 2017, no dividends have been declared.

Preferred Stock

In accordance with our Certificate of Incorporation, as amended and restated, we are authorized to issue 10,000,000 shares of \$0.001 par value preferred stock, which may be issued in one or more series. At December 31, 2017, there are no shares of preferred stock issued.

(10) Stock-Based Compensation

We grant stock-based incentive awards to attract, motivate and retain qualified employees (including officers), non-employee directors and consultants, and those of our affiliates. Awards granted under our 2012 Omnibus Incentive Compensation Plan (the 2012 Plan) include common stock options, restricted stock units (RSUs), performance-based restricted stock units (PSUs), and restricted stock awards. The 2002 Stock Option Plan (the 2002 Plan) expired in 2012 and we are no longer making grants under it. Information related to the 2012 Plan and the 2002 Plan as of December 31, 2017 is as follows:

	2012 Plan	2002 Plan
Shares of common stock authorized for issuance	9,646,696	4,939,270
Stock options outstanding	4,344,019	288,635
RSUs outstanding	812,262	—
PSUs outstanding	466,499	—
Shares available for future grant	3,141,931	—

Inclusive in the above "shares of common stock authorized for issuance" are the additional 4,500,000 shares approved by our stockholders in May 2017.

Stock Options

The fair value of option grants is estimated using the Black-Scholes option pricing model with the following weighted average assumptions:

	Year Ended December 31,		
	2017	2016	2015
Risk-free interest rate	1.92%	1.29%	1.71%
Expected volatility	32.66%	33.62%	38.90%
Expected dividend yield	—	—	—
Expected life in years	6.25	6.25	6.25
Weighted average fair value of options granted	\$2.82	\$1.32	\$3.28

The computation of expected volatility for each period is based on historical volatility of comparable public companies. The volatility percentage represents the mean volatility of these companies. The computation of expected life for each period was determined based on the simplified method. The risk-free interest rate is based on U.S. Treasury yields for zero-coupon bonds with a term consistent with the expected life of the options.

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Information relative to the 2002 Plan and the 2012 Plan is as follows:

	Options Outstanding	Weighted Average Exercise Price
Balance at December 31, 2014	4,449,973	\$9.00
Granted	1,028,850	8.05
Exercised	(462,703)	2.81
Canceled	(490,113)	9.84
Expired	(123,064)	7.56
Balance at December 31, 2015	4,402,943	9.38
Granted	248,728	3.74
Exercised	(646,639)	2.92
Canceled	(85,287)	9.04
Expired	(62,914)	5.77
Balance at December 31, 2016	3,856,831	9.99
Granted	1,050,654	7.86
Exercised	(107,526)	2.92
Canceled	(59,341)	9.94
Expired	(107,964)	11.11
Balance at December 31, 2017	4,632,654	9.79

	December 31,	
	2017	2016
Total intrinsic value of options exercised	\$ 415,374	\$ 3,933,518
Weighted average exercise price of fully vested options	\$ 10.43	\$ 9.99
Weighted average remaining term of fully vested options	6.4 years	7.4 years
Total unrecognized compensation cost related to non-vested stock options	\$ 5,116,640	\$ 6,868,787
Weighted average period to recognize compensation cost related to non-vested stock options	2.1 years	1.7 years

Information with respect to the options outstanding and exercisable under the 2002 Plan and the 2012 Plan at December 31, 2017 is as follows:

Exercise Price Per Share	Options Outstanding			Options Exercisable		
	Options Outstanding	Weighted Average Remaining Contractual Life	Intrinsic Value	Options Exercisable	Weighted Average Remaining Contractual Life	Intrinsic Value
\$ 2.31 - \$ 3.74	503,708	5.6 years	\$ 2,226,096	374,730	4.8 years	\$ 1,761,776
4.13 - 7.20	773,039	8.3 years	467,901	214,808	5.7 years	331,418
8.07 - 12.62	1,321,149	8.0 years	—	583,356	7.0 years	—
13.00 - 15.90	2,034,758	6.6 years	—	1,653,222	6.6 years	—
	<u>4,632,654</u>		<u>\$ 2,693,997</u>	<u>2,826,116</u>		<u>\$ 2,093,194</u>

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Restricted Stock and Performance Stock Units

The following table is a summary of our RSU and PSU activity for the years ended December 31, 2017:

	Number of RSU's Outstanding	Number of PSU's Outstanding	Total	Weighted Average Grant Date Fair Value
Balance at December 31, 2014	109,309	—	109,309	\$15.27
Granted	113,306	350,546	463,852	8.13
Vested	(140,638)	—	(140,638)	13.89
Canceled	—	(40,001)	(40,001)	8.08
Balance at December 31, 2015	81,977	310,545	392,522	8.07
Granted	666,018	—	666,018	3.91
Vested	(83,377)	—	(83,377)	8.11
Canceled	(64,652)	(30,298)	(94,950)	5.44
Balance at December 31, 2016	599,966	280,247	880,213	5.20
Granted	593,580	198,440	792,020	8.29
Vested	(343,146)	—	(343,146)	3.84
Canceled	(38,138)	(12,188)	(50,326)	6.87
Balance at December 31, 2017	<u>812,262</u>	<u>466,499</u>	<u>1,278,761</u>	7.41

	December 31, 2017
Weighted-average grant date fair value of unvested combined RSU/PSU	\$7.41
Total unrecognized compensation cost related to non-vested combined RSU/PSU	\$6,168,325
Weighted average period to recognize compensation cost related to non-vested combined RSU/PSU	2.8 years

During the year ended December 31, 2017, we awarded 198,440 PSUs that entitle recipients to shares of our common stock if certain multi-year financial metrics are met for the fiscal year ending December 31, 2018. The PSUs entitle the recipients to an amount of shares of common stock that could range from 0% up to 500% of the number of units granted at the date of vesting depending on the level of achievement of the specified conditions.

(11) Net Loss Per Share

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

	Year Ended December 31,		
	2017	2016	2015
Basic and diluted net loss per share:			
Numerator:			
Net loss	\$ (12,977,486)	\$ (18,726,726)	\$ (28,078,674)
Denominator:			
Weighted average shares used in computing net loss	27,415,953	26,718,882	26,152,301
Basic and diluted net loss per share	\$ (0.47)	\$ (0.70)	\$ (1.07)

Diluted net loss per share does not include the effect of the following antidilutive common equivalent shares:

	Year Ended December 31,		
	2017	2016	2015
Stock options outstanding	4,632,654	3,856,831	4,402,943
Restricted stock and performance stock units	1,278,761	880,213	392,522
	<u>5,911,415</u>	<u>4,737,044</u>	<u>4,795,465</u>

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(12) Commitments and Contingencies

(a) Employment Agreements

On May 5, 2016, we entered into an employment agreement with our Chief Executive Officer and President, James W. Preuninger, which is identical to his previous employment agreement in all respects, with the following exceptions, (i) a term of employment through December 31, 2018 with successive two-year extensions unless either party provides written notice of non-renewal at least six months before the end of the then-current term of employment, (ii) a base salary adjustment to reflect a prior 2015 increase, (iii) inclusion of non-renewal by us as an event upon which specified compensation (including certain equity vesting) would be owed to Mr. Preuninger, similar to termination by us without cause or termination by Mr. Preuninger with good reason, (iv) new provisions addressing recoupment and claw-back, and (v) modification to the Confidential Information, Assignment of Rights, Non-Solicitation and Non-Competition Agreement between us and Mr. Preuninger (Exhibit B to the employment agreement) to increase the timeframe for non-solicitation and non-competition, upon expiration or termination, from twelve months to twenty-four months.

(b) Legal Proceedings

We are involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on our financial position, results of operations, or liquidity.

(c) Other

Under the indemnification clauses of our standard customer agreements, we guarantee to defend and indemnify the customer against any claim based upon any failure to satisfy the warranty set forth in the contract associated with infringements of any patent, copyright, trade secret, or other intellectual property right. We do not expect to incur any infringement liability as a result of the customer indemnification clauses.

(13) Benefit Plan

We have a retirement savings plan under Section 401(k) of the Internal Revenue Code (the 401(k) Plan). We did not make any matching contributions to the 401(k) Plan during the years ended December 31, 2017, 2016, and 2015.

(14) Quarterly Results of Operations (unaudited)

The following is a summary of our quarterly results of operations for the years ended December 31, 2017 and 2016:

	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Revenues	\$ 18,554,556	\$ 19,675,285	\$ 20,213,250	\$ 20,633,019
Gross profit	9,152,782	9,765,196	11,062,248	11,354,317
Net loss	(4,413,196)	(4,517,471)	(2,237,703)	(1,809,116)
Net loss per share—basic and diluted	\$ (0.16)	\$ (0.16)	\$ (0.08)	\$ (0.07)
	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Revenues	\$ 16,964,672	\$ 18,138,940	\$ 18,850,801	\$ 19,206,777
Gross profit	7,947,096	9,106,224	10,040,282	10,331,187
Net loss	(5,686,183)	(4,740,385)	(3,791,250)	(4,508,908)
Net loss per share—basic and diluted	\$ (0.22)	\$ (0.18)	\$ (0.14)	\$ (0.17)