VARONIS SYSTEMS INC
Form 10-K
February 12, 2019

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

FORM 10-K

(Mark One)
ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

for the Fiscal Year Ended December 31, 2018
or
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

for the transition period from to

Commission file number: 001-36324

VARONIS SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Delaware	57-1222280
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification Number)

1250 Broadway, 29th Floor
New York, NY 10001
(Address of principal executive offices including zip code)

Registrant’s telephone number, including area code: (877) 292-8767

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

Common Stock, par value $0.001 per share	The NASDAQ Stock Market LLC
(Title of class)	(Name of exchange on which registered)

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ý 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 ý

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 ý No ¨

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes ý No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

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	ý	Accelerated Filer	¨
Non-accelerated Filer	¨	Smaller reporting company	¨
		Emerging growth company	¨

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

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

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 29, 2018 at a closing sale price of $74.50 as reported by the NASDAQ Global Select Market was approximately $2.15 billion. Shares of common stock held by each officer and director and by each person who owns or may be deemed to own 10% or more of the outstanding common stock have been excluded since such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 8, 2019, the registrant had 29,580,605 shares of common stock, par value $0.001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement to be used in connection with the solicitation of proxies for the Registrant's 2019 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K.

Special Note Regarding Forward-Looking Statements

This report contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed in the forward-looking statements. The statements contained in this report that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements are often identified by the use of words such as, but not limited to, “anticipate,” “believe,” “can,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “project,” “seek,” “should,” “strategy,” “
and similar expressions or variations intended to identify forward-looking statements. These statements are based on the beliefs and assumptions of our management based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results 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 below. 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.

VARONIS SYSTEMS, INC.
ANNUAL REPORT ON FORM 10-K
For The Fiscal Year Ended December 31, 2018

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PART I

Item 1. Business

We were incorporated under the laws of the State of Delaware on November 3, 2004 and commenced operations on January 1, 2005. Our principal executive offices are located at 1250 Broadway, 29th Floor, New York, NY 10001. For convenience in this report, the terms “Company,” “Varonis,” “we” and “us” may be used to refer to Varonis Systems, Inc. and/or its subsidiaries, except where indicated otherwise. Our telephone number is (877) 292-8767.

Overview

Varonis is a pioneer in data security and analytics, fighting a different battle than conventional cybersecurity companies. We are pioneers because over a decade ago, we recognized that enterprise capacity to create and share data far exceeded its capacity to protect it. We believed the vast movement of information from analog to digital mediums combined with increasing information dependence would change both the global economy and the risk profiles of corporations and governments. Since then our focus has been on using innovation to address the cyber-implications of this movement, creating software that provides ways to track and protect data wherever it is stored.

Our software allows enterprises to protect data stored on premises and in the cloud: sensitive files and emails; confidential customer, patient and employee data; financial records; strategic and product plans; and other intellectual property. Recognizing the complexities of securing data, we have built a single integrated platform for security and analytics to simplify and streamline security and data management.

The Varonis Data Security Platform, built on patented technology, allows enterprises to protect data against insider threats and cyberattacks. Our products enable enterprises to analyze data, account activity and user behavior to detect attacks. Our Data Security Platform prevents or limits unauthorized use of sensitive information, prevents potential cyberattacks and limits others by locking down sensitive and stale data. Our products efficiently sustain a secure state with automation and addresses additional use cases including data protection, governance, compliance, classification and threat detection and response. Our Data Security Platform is driven by a proprietary technology, the Metadata Framework, that extracts critical metadata, or data about data, from an enterprise’s IT infrastructure. Our Data Security Platform uses this contextual information to map functional relationships among employees, data objects, content and usage.

The revolution in internet search occurred when search engines began to mine internet metadata, such as the links between pages, in addition to page content, thereby making the internet’s content more usable and consequently more valuable. Similarly, our Data Security Platform creates advanced searchable data structures out of available content and metadata, providing real-time intelligence about an enterprise’s massive volumes of data, making it more accessible, manageable and secured.

We believe that the technology underlying our Data Security Platform is our primary competitive advantage. The strength of our solution is driven by several proprietary technologies and methodologies that we have developed, coupled with how we have combined them into our highly versatile platform. Our belief in our technological advantage stems from us having developed a way to do each of the following:

- determine relevant metadata and security information to capture;
- capture that metadata without imposing any strains or latencies on the enterprise’s computing infrastructure;
- modify that metadata in a way that makes it comparable and analyzable despite it having originated from disparate IT systems;

- create supplemental metadata, as needed, when the existing IT infrastructure’s activity logs are not sufficient;
- decipher the key functional relationships of metadata, the underlying data, and its creators;
- use those functional relationships to create a graphical depiction, or map, of the data that will endure as enterprises add large volumes of data to their network and storage resources on a daily basis;
- analyze the data and related metadata utilizing sophisticated algorithms, including cluster analyses and machine learning;

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- visualize and depict the analyses in an intuitive manner, including simulating contemplated changes and automatically execute tasks that are normally manually intensive for IT and business personnel;
- identify and classify the data as sensitive, critical, private or regulated;
- automate changes to directory service objects and access controls on large file systems;
- detect suspicious account behavior and unusual file and email activity using deep analysis of metadata, machine learning and user behavior analytics;
- generate meaningful, actionable alerts when security-related incidents are detected; and
- enable security teams to investigate and respond to cyber threats more efficiently and conclusively.

The broad applicability of our technology has resulted in our customers deploying our platform for numerous use cases. These use cases include: discovery and classification of high-risk, sensitive data; centralized visibility into enterprise data and monitoring of user behavior and file activity; security monitoring and risk reduction; data breach, insider threat, malware and ransomware detection; data ownership identification; reporting and auditing with searchable logs; meeting security policy and compliance regulation; data migration; and intelligent archiving.

We sell substantially all of our products and services to channel partners, including distributors and resellers, which sell to end-user customers, which we refer to in this report as our customers. We believe that our sales model, which combines the leverage of a channel sales model with our highly trained and professional sales force, has played and will continue to play a major role in our ability to grow and to successfully deliver our unique value proposition for enterprise data. While our products serve customers of all sizes, in all industries and all geographies, the marketing focus and majority of our sales focus is on targeting organizations with 1,000 users or more who can make larger purchases with us over time and have a greater potential lifetime value. As of December 31, 2018, we had approximately 6,600 customers, spanning leading firms in the financial services, public, healthcare, industrial, insurance, energy and utilities, consumer and retail, media and entertainment, technology and education sectors.

Historically, an insignificant amount of our revenues has been sold under subscription-based license arrangements which are sold on premises. In these arrangements, the customer has the right to use the software over a designated period of time. As we transition to a more subscription-based model, we expect that over the next several years revenues from subscription-based arrangements will become a more significant portion of our total revenues.

Size of Our Market Opportunity

The International Data Corporation’s Data Age 2025: The Digitization of the World from Edge to Core study estimates that the amount of data created in the world will grow from 33 Zettabytes in 2018 to 175 Zettabytes (or 175 trillion gigabytes) in 2025, representing an approximately 27% compound annual growth rate. Every enterprise will almost certainly require new technologies to protect and manage their data and centralize data management, analytics, data security and privacy.

We believe that the diverse functionalities offered by our platform position us at the intersection of several powerful trends in the digital enterprise data universe. We further believe that the business intelligence and functionalities delivered by our platform define a new market, and we are not aware of any third party studies that accurately define our addressable market. The functionality of our software platform overlaps with portions of several established and growing enterprise software markets as defined by Gartner, Inc. in 2018, including security software ($23.6 billion), IT operations management ($27.2 billion), storage management ($15.0 billion), infrastructure software ($10.4 billion) and data integration ($5.4 billion). We believe that our comprehensive product offering will attract a meaningful portion of this overall spend, estimating that our total addressable market is approximately 20% of these combined markets, or more than $16.0 billion.

Our Technology

Our proprietary technology extracts critical information about an enterprise’s data and uses this contextual information, or metadata, to create a functional map of an enterprise’s data and underlying file systems. Our Metadata Framework technology has been architected to process large volumes of enterprise data and the related metadata at a massive scale with minimal demands on the existing IT infrastructure. All of our products utilize our Data Security Platform and a core single codebase, thereby streamlining our product development initiatives.

Key Benefits of Our Technology

Data Protection

Comprehensive Solution for Managing and Protecting Enterprise Data. Our products enable a broad range of functionality, including data governance and intelligent retention, all from one core technology platform. Moreover, our platform is applicable across most major enterprise data stores (Windows, UNIX/Linux, Intranets, email systems, Office365 and Box).

Actionable Intelligence Analytics, and Automation. Our products help customers automatically lock down sensitive data and remediate security vulnerabilities, so that they are less vulnerable to internal and external threats, more compliant and consistently following a least privilege model.

Visibility and Data Monitoring Capabilities All in One Place. Our solutions focus on protecting enterprise data on-premises and in the cloud in a single view. As data storage becomes more fragmented, functioning in a hybrid space, our Data Security Platform provides customers with a single pane of glass to monitor and protect enterprise data regardless of where it is stored.

Fast Time to Value and Low Total Cost of Ownership. Our solutions do not require custom implementations or long deployment cycles. Our Data Security Platform can be installed and ready for use within hours and allows customers to realize real value once used. We designed our platform to operate on commodity hardware with standard operating systems, further reducing the cost of ownership of our product.

Ease of Use. While we utilize complex data structures and algorithms in our data engine, we abstract that complexity to provide a sleek, intuitive interface. Our software is accessible through either the local client or a standard web browser and requires limited training, saving time and cost and making it accessible to a broader set of non-technical users.

Highly Scalable and Flexible Data Engine. Our metadata analysis technology is built to be highly scalable and flexible, allowing our customers to analyze vast amounts of enterprise data. Moreover, our proprietary Metadata Framework is built with a modular architecture, allowing customers to grow into the full capabilities of our solutions over time.

Threat Detection and Response

Threat Detection and Response with User, Data and System Context. Our solutions combine classification and data access governance with User and Entity Behavior Analytics (UEBA) on data stores, directory services and perimeter devices, including DNS, VPN and web proxy, for accurate detection and risk reduction. Our solutions reduce risk relating to unauthorized use and cyberattacks.

Protect Data from Insider Threats, Data Breaches and Cyberattacks. Our solutions analyze how employee accounts, service accounts and admin accounts use and access data, profile employees' roles and file contents, baseline "normal" behavior patterns, and alert on significant deviations from profiled behaviors. Our customers are able to detect rogue insiders, attackers that have compromised internal systems and employee accounts, malware and other significant threats.

Compliance

Discover and Identify Regulated Data. Our solutions discover, identify and classify sensitive, critical and regulated data to help meet compliance requirements.

Monitor and Detect Security Vulnerabilities. Our solutions analyze, monitor, detect and report on potential security vulnerabilities: helping companies achieve compliance by enabling full audit trails, achieving least privilege and locking down sensitive data to only those who need it, and facilitate breach notification and security investigations.

Fulfill Data Subject Access Requests and Protect Consumer Data. Our solutions help fulfill data subject access requests. Customers can find relevant files, pinpoint who has access and enforce policies to move and quarantine regulated data.

Our Growth Strategy

Our objective is to be the primary vendor to which enterprises turn to protect and analyze their data. The following are key elements of our growth strategy.

Extend Our Technological Capabilities Through Innovation. We intend to increase our current level of investment in product development in order to enhance existing products to address new use cases and deliver new products. We believe that the flexibility, sophistication and broad applicability of our Metadata Framework will allow us to use this framework as the core of numerous future products built on our same core technology. Our ability to leverage our research and development resources has enabled us to create a new product development engine that we believe can proactively identify and solve enterprise needs.

Grow Our Customer Base. The unabated rise in enterprise data, ubiquitous reliance on digital collaboration and increased cybersecurity concerns will continue to drive demand for data protection, compliance and threat detection and response solutions. We intend to capitalize on this demand by targeting new customers, vertical markets and use cases for our solutions. Our solutions address the needs of customers of all sizes ranging from small and medium businesses to large multinational companies with thousands of employees and petabytes of data. Although our solutions are applicable to organizations of all sizes, we will continue our focus on targeting larger organizations who can make larger purchases with us over time.

Increase Sales to Existing Customers. We believe significant opportunities exist to further expand relationships with existing customers. Data growth (and subsequent security concerns) continues across all data stores, and enterprises want to standardize on solutions that help them manage, protect and extract more value from their data wherever it is stored. We will continue to cultivate incremental sales from our existing customers by driving increased use of our software within our installed base by expanding footprint and usage. We currently have six product families, and, as of December 31, 2018, approximately 73% of our customers had purchased two or more product families and approximately 40% of our customers had purchased three or more product families. We believe our existing customer base serves as a strong source of incremental revenues given the broad platform of products we have and the growing volumes and complexity of enterprise data that our customers have. As we innovate and expand our product offering, we expect to have an even broader suite of products to offer our customers.

Grow Sales From Our Newer Licenses. During the past year, we have introduced additional licenses to existing products to support new functionalities. In 2018, we released Varonis Edge, which analyzes perimeter devices like DNS, VPN and Web Proxies to detect attacks like malware, APT intrusion and data exfiltration. Varonis Edge enables enterprises to correlate events and alerts to track potential data leaks and spot vulnerabilities at the point of entry. We also released Data Classification Labels, integrating with Microsoft Information Protection (MIP) to help enterprises better classify, track and secure files across enterprise data stores. We enhanced DatAnswers to address data privacy and compliance use cases, enabling customers to fulfill data subject access requests and protect personally identifiable information. We have enhanced our products to provide even more value to our customers including: an updated user interface for DataPrivilege, additional data store support, new geolocation support, enhanced threat detection and security monitoring and new threat models to protect sensitive and regulated data against security breaches, malware, ransomware and insider threats. We believe these new additions to our product offering can be a meaningful contributor to our growth.

Expand Our Sales Force. Continuing to expand our salesforce will be essential to achieving our customer base expansion goals. The salesforce and our approach to introducing products to the market has been key to our successful growth in the past and will be central to our growth plan in the future. While our products serve customers of all sizes, in all industries and all geographies, the marketing focus and majority of our sales focus is on targeting organizations with 1,000 users or more who can make larger purchases with us over time and generate a greater potential lifetime value. The ability of our sales teams to support our channel partners to efficiently identify leads, perform risk assessments and convert them to satisfied customers will continue to impact our ability to grow. We intend to expand our sales capacity by adding headcount throughout our sales and marketing department.

Establish Our Data Security Platform as the Industry Standard. We have worked with several of the leading providers of network attached storage, or NAS, hybrid cloud storage, including EMC, IBM, NetApp, HP, Hitachi and Nasuni in order to expand our market reach and deliver enhanced functionality to our customers. We have worked with these vendors to assure compatibility with their product lines. Through the use of application programming interfaces, or APIs, and other integration work, our solutions also integrate with many providers of solutions in the ecosystem. We will continue to pursue such collaborations wherever they advance our strategic goals, thereby expanding our reach and establishing our product user interface as the de facto industry standard when it comes to enterprise data.

Continue International Expansion. We believe there is a significant opportunity for our platform in international markets to comply with regulations such as the European Union's ("EU") General Data Protection Regulation ("GDPR"). Revenues from Europe, the Middle East and Africa (“EMEA") accounted for approximately a third of our revenues in 2018. Europe represented the substantial majority of revenues outside the United States. Although we have experienced inconsistent quarterly growth rates over the last few years in our European market, we believe that international expansion will be a key component of our growth strategy, and we will continue to market our products and services overseas.

Our Products

We have six product families that utilize our core Metadata Framework technology to deliver features and functionality that allow enterprises to fully understand, secure and benefit from the value of their data. This architecture easily extends through modular functionalities giving our clients the flexibility to select the features they require for their business needs and the flexibility to expand their usage simply by adding a license.

- DatAdvantage. DatAdvantage, our flagship product, launched in 2006, builds on our Metadata Framework and captures, aggregates, normalizes and analyzes every data access event for every user on Windows and UNIX/Linux servers, storage devices, email systems and Intranet servers, without requiring native operating system auditing functionalities or impacting performance or storage on file systems. Through an intuitive graphical interface, DatAdvantage presents insights from massive volumes of data using normal computing infrastructure. It is also our presentation layer for IT departments, which provides an interactive map of relevant users, groups and data objects, usage and content, facilitating analysis from multiple vectors. IT departments can pinpoint areas of interest starting with any metadata object, simulate changes measuring potential impact against historical access patterns, and easily execute changes on all data stores through a unified interface. DatAdvantage identifies where users have unneeded access based on user behavior.

- The Automation Engine, a module introduced in 2017, helps customers accelerate the enforcement of least privilege by limiting broad access without all the manual legwork. It automatically repairs and maintains file systems, helping reduce customers’ risk profiles and decreasing their overhead and resources required to get to a least privilege model.
- DatAlert. Introduced in 2013, DatAlert profiles users and their behaviors with respect to systems and data, detects and alerts on meaningful deviations to established baselines, and provides a web-based dashboard and investigative interface. DatAlert helps enterprises detect suspicious activity, prevents data breaches and cyberattacks, performs security forensics, visualizes risk and prioritizes investigation.
- Varonis Edge, a module introduced in early 2018, analyzes perimeter devices like DNS, VPN and Web Proxy to detect attacks like malware, APT intrusion and exfiltration and enables enterprises to correlate events and alerts at the perimeter with alerts and events concerning data to better spot attacks at the point of entry and egress.
- Data Classification Engine (introduced in 2009 as IDU Classification Framework). As the volume of an enterprise’s information grows, enterprises struggle to find and tag different types of sensitive data, such as intellectual property, regulated content, including Personally Identifiable Information, and medical records. Furthermore, content by itself does not provide adequate context to determine ownership, relevance, or protection requirements. Data Classification Engine identifies and tags data based on criteria set in multiple metadata dimensions and provides business and IT personnel with actionable intelligence about this data, including a prioritized list of folders and files containing the most sensitive data and with the most inadequate permissions. For the identified folders and files, it also identifies who has access to that data, who is using it, who owns it, and recommendations for how to restrict access without disrupting workflow. Data Classification Engine provides visibility into the content of data across file systems and Intranet sites and combines it with other metadata, including usage and accessibility.

- GDPR Patterns, introduced in 2017, uses the Data Classification Engine as a foundation to identify and classify regulated data in the EU that falls under the GDPR, with hundreds of unique patterns that cover all 28 countries in the EU.

- Data Classification Labels, introduced in 2018, integrates with Microsoft Information Protection (MIP) to protect sensitive data across customer environments regardless of where it lives or how it is shared. Data Classification

Labels allows users to automatically apply classification labels and encrypt files that it has identified as sensitive.

- DataPrivilege. DataPrivilege, launched in 2006 and designed for use by business unit personnel, provides a self-service web portal that allows users to request access to data necessary for their business functions, and owners to grant access without IT intervention. DataPrivilege enhances data protection and compliance by enabling business users to make access decisions based on queries, user requests and metadata analytics information, rather than static IT policies. DataPrivilege provides a presentation layer for business users to review accessibility, sensitivity and usage of their data assets and grant and revoke access.

- Data Transport Engine. We introduced Data Transport Engine in 2012 to provide an execution engine that unifies the manipulation of data and metadata, translating business decisions and instructions into technical commands such as data migration or archiving. Data Transport Engine allows both IT and business personnel to standardize and streamline activities for data management and retention, from day-to-day maintenance to complex data store and domain migrations and archiving. Data Transport Engine ensures that data migrations automatically synchronize source and destination data with incremental copying even if the source data is still in use, translates access permissions across data stores and domains and provides reporting capabilities for data migration status. Moreover, it also provides IT personnel the flexibility to schedule recurring migrations to automatically find and move certain types of data such as sensitive or stale data and to perform active migrations, dispositions and archiving safely and efficiently.

- DatAnswers. DatAnswers was introduced in 2014 to provide secure, relevant and timely search functionality for enterprise data. In 2018, we enhanced DatAnswers to help meet growing demands to comply with data privacy regulations and eDiscovery requests, and to facilitate Data Subject Access Requests (DSARs). As data privacy laws are becoming more prevalent across the globe, meeting subject access requests is a primary requirement in data regulation. As companies continue to generate and store data in numerous enterprise data stores, relevant files become harder to find and manage, and compliance officers, controllers, and administrators need to identify and locate relevant content related to a data subject. DatAnswers provides elevated search for compliance and e-discovery, helping solve the growing problem of being able to fulfill subject access requests to meet data privacy laws.

Our Customers

Our customer base has grown from approximately 550 customers at December 31, 2009 to approximately 6,600 customers in 80 countries as of December 31, 2018. Our customers span numerous industries and vary greatly in size, ranging from small and medium businesses to large multinational enterprises with hundreds of thousands of employees and hundreds of terabytes of data.

Services

Maintenance and Support

Our customers typically purchase one year of software maintenance and support as part of their initial purchase of our products, with an option to renew their maintenance agreements. These maintenance agreements provide customers the right to receive support and unspecified upgrades and enhancements when and if they become available during the maintenance period and access to our technical support services.

We maintain a customer support organization that provides all levels of support to our customers. Our customers that purchase maintenance and support services receive guaranteed response times, direct telephonic support and access to online support portals. Our customer support organization has global capabilities with expertise in both our software and complex IT environments and associated third-party infrastructure.

Professional Services

While users can easily download, install and deploy our software on their own, certain enterprises use our professional service team to provide fee-based services, which include training our customers in the use of our products, providing advice on network design, product configuration and implementation, automating and customizing reports and tuning policies and configuration of our products for the particular characteristics of the customer’s environment.

Sales and Marketing

Sales

We sell the vast majority of our products and services to a global network of hundreds of resellers and distributors that we refer to as our channel partners. Our channel partners, in turn, sell the products they purchase from us to customers globally.

In addition, we maintain a highly trained professional sales force that is responsible for overall market development, including the management of the relationships with our channel partners and supporting channel partners in winning customers through operating demonstrations and risk assessments. Our channel partners identify potential sales targets, maintain relationships with customers and introduce new products to existing customers. Sales to our channel partners are generally subject to our standard, non-exclusive channel partner agreement, meaning our channel partners may offer customers the products of several different companies. These agreements are generally for a term of one year with a one year renewal term and can be terminated by us or the channel partner for any reason upon 30 days' notice. A termination of the agreement has no effect on orders already placed. Payment to us from the channel partner is typically due within 30 to 60 calendar days of the invoice date.

Marketing

Our marketing strategy focuses on building our brand and product awareness, increasing customer adoption and demand, communicating advantages and business benefits and generating leads for our channel partners and sales force. We market our software as a Data Security Platform, a solution for securing and managing file systems and enterprise data and transforming that data into actionable intelligence. We execute our marketing strategy by leveraging a combination of internal marketing professionals, external marketing partners and a network of regional and global channel partners. Our internal marketing organization is responsible for branding, content generation, demand generation, field marketing and product marketing and works with our business operations team to support channel marketing and sales support programs. We provide one on one and community education and awareness and promote the expanded use of our software. We host in-person Varonis Connect! customers events annually across sales regions, as well as free, online monthly or bi-weekly technical webinars in multiple regions. We focus our efforts on events, campaigns, tools and activities that can be leveraged by our channel partners worldwide to extend our marketing reach, such as sales tools, information regarding product awards and technical certifications, training, regional seminars and conferences, webinars, podcasts and various other demand-generation activities. Our marketing efforts also include public relations in multiple regions, analyst relations, customer marketing, extensive content development available through our web site and content syndication, and our active blog, "The Inside Out Security Blog."

Seasonality

See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations — Seasonality and Quarterly Trends."

Research and Development

Our research and development efforts are focused primarily on improving and enhancing our existing products and services, as well as developing new products, features and functionality. Use of our products has expanded from governance into new areas such as data security, accessibility and retention, and we anticipate that customers and innovation will drive functionality into additional areas. We regularly release new versions of our products which incorporate new features and enhancements to existing ones. We conduct substantially all of our research and development activities in Israel, and we believe this provides us with access to world class engineering talent.

Our research and development expense was $70.0 million, $47.4 million and $36.7 million in 2018, 2017 and 2016, respectively.

Intellectual Property

We rely on patent, trademark, copyright and trade secret laws, confidentiality procedures and contractual provisions to protect our technology and the related intellectual property. The nature and extent of legal protection of our intellectual property rights depends on, among other things, its type and the jurisdiction in which it arises. As of January 31, 2019, we had 63 issued patents and 38 pending patent applications in the United States. Our issued U.S. patents expire between 2025 and 2039. We also had 26 patents issued and 70 applications pending for examination in non-U.S. jurisdictions, and three pending Patent Cooperation Treaty ("PCT") patent applications, all of which are counterparts of our U.S. patent applications. Certain of our patents are owned by our Israeli subsidiary. The claims for which we have sought patent protection relate primarily to inventions we have developed for incorporation into our products. We also license software from third parties for use in developing our products and for integration into our products, including open source software.

Despite our efforts to protect our proprietary technologies and intellectual property rights, unauthorized parties may attempt to copy aspects of our products or obtain and use our trade secrets or other confidential information. We generally enter into confidentiality agreements with our employees, consultants, service providers, vendors and customers and generally limit internal and external access to, and distribution of, our proprietary information and proprietary technology through certain procedural safeguards. These agreements may not effectively prevent unauthorized use or disclosure of our intellectual property or technology and may not provide an adequate remedy in the event of unauthorized use or disclosure of our intellectual property or technology. We cannot assure you that the steps taken by us will prevent misappropriation of our trade secrets or technology or infringement of our intellectual property. In addition, the laws of some foreign countries do not protect our proprietary rights to as great an extent as the laws of the United States, and many foreign countries do not enforce these laws as diligently as government agencies and private parties in the United States.

Our industry is characterized by the existence of a large number of relevant patents and frequent claims and related litigation regarding patents and other intellectual property rights. From time to time, third-parties have asserted and may assert their patent, copyright, trademark and other intellectual property rights against us, our channel partners or customers. Successful claims of infringement or misappropriation by a third party could prevent us from distributing certain products or performing certain services or could require us to pay substantial damages (including, for example, treble damages if we are found to have willfully infringed patents and increased statutory damages if we are found to have willfully infringed copyrights), royalties or other fees. Such claims also could require us to cease making, licensing or using solutions that are alleged to infringe or misappropriate the intellectual property of others, or to expend additional development resources to attempt to redesign our products or services or otherwise to develop non-infringing technology. Even if third parties may offer a license to their technology, the terms of any offered license may not be acceptable, and the failure to obtain a license or the costs associated with any license could cause our business, results of operations or financial condition to be materially and adversely affected. In some cases, we indemnify our channel partners and customers against claims that our products infringe the intellectual property of third parties.

Competition

While there are some companies which offer certain features similar to those embedded in our solutions, as well as others with which we compete in certain use cases, we believe that we do not currently compete with a company that offers the same breadth of functionalities that we offer in a single integrated solution. Nevertheless, we do compete against a select group of software vendors, such as Veritas Technologies LLC and Quest Software, that provide standalone solutions, similar to those found in our comprehensive software suite, in the specific markets in which we operate. We also face direct competition with respect to certain of our products, specifically Data Transport Engine, DatAnswers and DatAdvantage for Directory Services. As we continue to augment our functionality with insider threat detection and user behavior analytics and as we expand our classification capabilities to better serve compliance needs with new regulations, like GDPR and other data privacy laws, we may face increased perceived and real competition from other security and classification technologies. In the future, as customer requirements evolve and new technologies are introduced, we may experience increased competition if established or emerging companies develop solutions that address the enterprise data market. Furthermore, because we operate in a relatively new and evolving area, we anticipate that competition will increase based on customer demand for these types of products.

A number of factors influence our ability to compete in the markets in which we operate, including, without limitation: the continued reliability and effectiveness of our products' functionalities; the breadth and completeness of our solutions' features; the scalability of our solutions; and the ease of deployment and use of our products. We believe that we generally compete favorably in each of these categories. We also believe that we distinguish ourselves from others by delivering a single, integrated solution to address our customers' needs regarding access, governance, security and retention with respect to their enterprise data. There can, however, be no assurance that we will remain unique in this capacity or that we will be able to compete favorably with other providers in the future.

If a more established company were to target our market, we may face significant competition. They may have competitive advantages, such as greater name recognition, larger sales, marketing, research and acquisition resources, access to larger customer bases and channel partners, a longer operating history and lower labor and development costs, which may enable them to respond more quickly to new or emerging technologies and changes in customer requirements or devote greater resources to the development, promotion and sale of their products than we do. Increased competition could result in us failing to attract customers or maintain renewals and licenses at the same rate. It could also lead to price cuts, alternative pricing structures or the introduction of products available for free or a nominal price, reduced gross margins, longer sales cycles and loss of market share.

In addition, our current or prospective channel partners may establish cooperative relationships with any future competitors. These relationships may allow future competitors to rapidly gain significant market share. These developments could also limit our ability to generate revenues from existing and new customers. If we are unable to compete successfully against current and future competitors our business, results of operations and financial condition may be harmed.

Employees

As of December 31, 2018, we had 1,460 employees and independent contractors, of which 604 were in the United States, 497 were in Israel and 359 were in other countries. None of our employees is represented by an external labor union with respect to his or her employment with us. Employees in certain European countries have the benefits of collective bargaining arrangements at the national level. We have not experienced any work stoppages, and we consider our relations with our employees to be good.

Available Information

Our website is located at www.varonis.com, and our investor relations website is located at http://ir.varonis.com/. The information posted on our website is not incorporated into this Annual Report on Form 10-K. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act are available free of charge on our investor relations website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (the “SEC"). You may also access all of our public filings through the SEC’s website at www.sec.gov.

Investors and other interested parties should note that we use our media and investor relations website and our social media channels to publish important information about us, including information that may be deemed material to investors. We encourage investors and other interested parties to review the information we may publish through our media and investor relations website and the social media channels listed on our media and investor relations website, in addition to our SEC filings, press releases, conference calls and webcasts.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the following risks and all other information contained herein, including our consolidated financial statements and the related notes thereto, before investing in 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, also may become important factors that affect us. If any of the following risks materialize, our business, financial condition and results of operations could be materially harmed. In that case, the trading price of our common stock could decline, and you may lose some or all of your investment.

Risks Related to Our Business and Industry

The market for software that analyzes, secures, manages and migrates enterprise data is new and unproven and may not grow.

We believe our future success depends in large part on the growth of the market for software that enables enterprises to analyze, secure, manage and migrate their data. In order for us to market and sell our products, we must successfully demonstrate to enterprise IT, security and business personnel the potential value of their data and the risk of that data getting compromised or stolen. We must persuade them to devote a portion of their budgets to a unified platform that we offer to manage, protect, secure and extract value from this resource. We cannot provide any assurance that enterprises will recognize the need for our products or, if they do, that they will decide that they need a solution that offers the range of functionalities that we offer. Software solutions focused on enterprise data may not yet be viewed as a necessity, and accordingly, our sales effort is and will continue to be focused in large part on explaining the need for, and value offered by, our solution. We can provide no assurance that the market for our solution will continue to grow at its current rate or at all. The failure of the market to develop would materially adversely impact our results of operations.

Our quarterly results of operations have fluctuated and may fluctuate significantly due to variability in our revenues which could adversely impact our stock price.

Our revenues and other results of operations have fluctuated from quarter to quarter in the past and could continue to fluctuate in the future. As a result, comparing our revenues and results of operations on a period-to-period basis may not be meaningful, and you should not rely on any particular past quarter or other period results. Our revenues depend in part on the conversion of enterprises that have undergone risk assessments into paying customers. In this regard, most of our sales are typically made during the last three weeks of every quarter. We may fail to meet market expectations for that quarter if we are unable to close the number of transactions that we expect during this short period and closings are deferred to a subsequent quarter. In addition, our sales cycle from initial contact to delivery of and payment for the software license generally becomes longer and less predictable with respect to large transactions and often involves multiple meetings or consultations at a substantial cost and time commitment to us. Although we try to minimize the potential impact of large transactions on our quarterly results of operations, the closing of a large transaction in a particular quarter may raise our revenues in that quarter and thereby make it more difficult for us to meet market expectations in subsequent quarters, and our failure to close a large transaction in a particular quarter may adversely impact our revenues in that quarter. Moreover, we base our current and future expense levels on our revenue forecasts and operating plans, and our expenses are relatively fixed in the short term. Accordingly, we would likely not be able to reduce our costs sufficiently to compensate for an unexpected shortfall in revenues and even a relatively small decrease in revenues could disproportionately and adversely affect our financial results for that quarter.

The variability and unpredictability of these and other factors, many of which are outside of our control, could result in our failing to meet or exceed financial expectations for a given period. If our revenues or results of operations fall below the expectations of investors or any securities analysts that cover our stock, the price of our common stock could decline substantially.

A failure to hire and integrate additional sales and marketing personnel or maintain their productivity could adversely affect our results of operations and growth prospects.

Our business requires intensive sales and marketing activities. Our sales and marketing personnel are essential to attracting new customers and expanding sales to existing customers, both of which are key to our future growth. We face a number of challenges in successfully expanding our sales force. We must locate and hire a significant number of qualified individuals, and competition for such individuals is intense. In addition, as we expand into new markets with which we have less familiarity, we will need to recruit individuals who are multilingual or who have skills particular to a certain geography, and it may be difficult to find candidates with those qualifications. We may be unable to achieve our hiring or integration goals due to a number of factors, including, but not limited to, the number of individuals we hire, challenges in finding individuals with the correct background due to increased competition for such hires and increased attrition rates among new hires and existing personnel. Furthermore, based on our past experience in mature territories, it often can take up to 12 months before a new sales force member is trained and operating at a level that meets our expectations. We invest significant time and resources in training new members of our sales force, and we may be unable to achieve our target performance levels with new sales personnel as rapidly as we have done in the past due to larger numbers of hires or lack of experience training sales personnel to operate in new jurisdictions. Our failure to hire a sufficient number of qualified individuals, to integrate new sales force members within the time periods we have achieved historically or to keep our attrition rates at levels comparable to others in our industry may materially impact our projected growth rate.

Failure to attract, recruit and retain highly qualified engineers could adversely affect our results of operations and growth prospects.

Our future success and growth depend, in part, on our ability to continue to recruit and retain highly skilled personnel, particularly engineers. Any of our employees may terminate their employment at any time, we face intense competition for highly skilled engineering personnel, especially in Israel, where we have a substantial presence and need for qualified engineers, from numerous other companies, including other software and technology companies, many of whom have greater financial and other resources than we do. Moreover, to the extent we hire personnel from other companies, we may be subject to allegations that they have been improperly solicited or may have divulged proprietary or other confidential information to us. If we are unable to attract or retain qualified engineers, our ability to innovate, introduce new products and compete would be adversely impacted, and our financial condition and results of operations may suffer.

If we fail to manage our growth effectively, our business and results of operations will be adversely affected.

We have experienced rapid growth in a relatively short period of time. Our revenues grew from $74.6 million in 2013 to $270.3 million in 2018. Our number of employees and independent contractors increased from 573 as of December 31, 2013 to 1,460 as of December 31, 2018. During this period, we also established and expanded our operations in a number of countries outside the United States and in additional locations within the United States. We intend to continue to grow our business and plan to continue to hire new employees, particularly in our sales and marketing and research and development groups. If we cannot adequately train these new employees, including our sales force, engineers and customer support staff, our sales may not grow at the rates we project or our customers may lose confidence in the knowledge and capability of our employees. In addition, we are expanding our current operations, and we intend to make investments to continue our expansion efforts. We must successfully manage our growth to achieve our objectives. Although our business has experienced significant growth in the past, we cannot provide any assurance that our business will continue to grow at the same rate, or at all.

Our ability to effectively manage any significant growth of our business will depend on a number of factors, including our ability to do the following:

- effectively recruit, integrate, train and motivate a large number of new employees, including our sales force and engineers, while retaining existing employees, maintaining the beneficial aspects of our corporate culture and effectively executing our business plan;
- satisfy existing customers and attract new customers;
- transition from perpetual licenses to a more subscription-based business model;
- successfully introduce new products and enhancements;
- effectively manage existing channel partnerships and expand to new ones;
- improve our key business applications and processes to support our business needs;
- enhance information and communication systems to ensure that our employees and offices around the world are well-coordinated and can effectively communicate with each other and our growing customer base;
- enhance our internal controls to ensure timely and accurate reporting of all of our operations and financial results;
- protect and further develop our strategic assets, including our intellectual property rights; and
- make sound business decisions in light of the scrutiny associated with operating as a public company.

These activities will require significant investments and allocation of valuable management and employee resources, and our growth will continue to place significant demands on our management and our operational and financial infrastructure. There are no guarantees we will be able to grow our business in an efficient or timely manner, or at all. Moreover, if we do not effectively manage the growth of our business and operations, the quality of our software could suffer, which could negatively affect our brand, results of operations and overall business.

Our failure to continually enhance and improve our technology could adversely affect sales of our products.

The market is characterized by the exponential growth in enterprise data, rapid technological advances, changes in customer requirements, including customer requirements driven by changes to legal, regulatory and self-regulatory compliance mandates, frequent new product introductions and enhancements and evolving industry standards in computer hardware and software technology. As a result, we must continually change and improve our products in response to changes in operating systems, application software, computer and communications hardware, networking software, data center architectures, programming tools, computer language technology and various regulations. Moreover, the technology in our products is especially complex because it needs to effectively identify and respond to a user’s data retention, security and governance needs, while minimizing the impact on database and file system performance. Our products must also successfully interoperate with products from other vendors.

We cannot guarantee that we will be able to anticipate future market needs and opportunities or be able to extend our technological expertise and develop new products or expand the functionality of our current products in a timely manner or at all. Even if we are able to anticipate, develop and introduce new products and expand the functionality of our current products, there can be no assurance that enhancements or new products will achieve widespread market acceptance.

Our product enhancements or new products could fail to attain sufficient market acceptance for many reasons, including:

- failure to accurately predict market demand in terms of product functionality and to supply products that meet this demand in a timely fashion;
- inability to interoperate effectively with the database technologies and file systems of prospective customers;

- defects, errors or failures;
- negative publicity or customer complaints about performance or effectiveness; and
- poor business conditions, causing customers to delay IT purchases.

If we fail to anticipate market requirements or stay abreast of technological changes, we may be unable to successfully introduce new products, expand the functionality of our current products or convince our customers and potential customers of the value of our solutions in light of new technologies. Accordingly, our business, results of operations and financial condition could be materially and adversely affected.

If we fail to successfully manage the transition to a subscription-based business model, our results of operations could be negatively impacted.

We are currently transitioning to a more subscription-based business model. It is uncertain whether this transition will prove successful. Market acceptance of our products is dependent on our ability to include functionality and usability that address certain customer requirements. Additionally, we must optimally price our products in light of marketplace conditions, our costs and customer demand. This transition may have negative revenue implications, including on our quarterly results of operations. If we are unable to respond to these competitive threats, our business could be harmed.

This subscription strategy may give rise to a number of risks, including the following:

- our revenues and cash flows may fluctuate more than anticipated over the short-term as a result of this strategy;
- if new or current customers desire only perpetual licenses our subscription sales may lag behind our expectations;
- the shift to a subscription strategy may raise concerns among our customer base, including concerns regarding changes to pricing over time and access to data once a subscription has expired;
- we may be unsuccessful in maintaining or implementing our target pricing or new pricing models, product adoption and projected renewal rates, or we may select a target price or new pricing model that is not optimal and could negatively affect our sales or earnings;
- our shift to a subscription licensing model may result in confusion among new or existing customers (which can slow adoption rates), resellers and investors;
- if our customers do not renew their subscriptions, our revenues may decline and our business may suffer;
- our relationships with existing partners that resell perpetual license products may be damaged; and
- we may incur sales compensation costs at a higher than forecasted rate if the pace of our subscription transition is faster than anticipated.

We are dependent on the continued services and performance of our co-founder, Yakov Faitelson, the loss of whom could adversely affect our business.

Our future performance depends in large part on the continued services and continuing contributions of our co-founder, Chief Executive Officer and President, Yakov Faitelson, to successfully manage our company, to execute on our business plan and to identify and pursue new opportunities and product innovations. The loss of services of Mr. Faitelson could significantly delay or prevent the achievement of our development and strategic objectives and adversely affect our business.

Due to our rapid growth, we have a limited operating history at our current scale, which makes it difficult to evaluate and predict our future prospects and may increase the risk that we will not be successful.

We have been growing rapidly in recent periods and, as a result, have a relatively short history operating our business at its current scale. For example, we have significantly increased the number of our employees and have expanded our operations and product offerings. This limits our ability to forecast our future operating results and subjects us to a number of uncertainties, including our ability to plan for and model future growth. We have encountered and will continue to encounter risks and uncertainties frequently experienced by growing companies in new markets that may not develop as expected. Because we depend in part on the market's acceptance of our products, it is difficult to evaluate trends that may affect our business. If our assumptions regarding these trends and uncertainties, which we use to plan our business, are incorrect or change in reaction to changes in our markets, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations and our business could suffer. Moreover, although we have experienced significant growth historically, we may not continue to grow as quickly in the future.

Our future success will depend in large part on our ability to, among other things:

- maintain and expand our business, including our customer base and operations, to support our growth, both domestically and internationally;
- hire, integrate, train and retain skilled talent, including members of our sales force and engineers;
- develop new products and services and bring products and services in beta to market;
- manage the transition to a more subscription-based business model successfully;
- renew maintenance and support agreements with, and sell additional products to, existing customers;
- maintain high customer satisfaction and ensure quality and timely releases of our products and product enhancements;
- increase market awareness of our products and enhance our brand; and
- maintain compliance with applicable governmental regulations and other legal obligations, including those related to intellectual property, international sales and taxation.

If we fail to address the risks and difficulties that we face, including those associated with the challenges listed above as well as those described elsewhere in this “Risk Factors” section, our business will be adversely affected, and our results of operations will suffer.

If we are unable to attract new customers and expand sales to existing customers, both domestically and internationally, our growth could be slower than we expect, and our business may be harmed.

Our future growth depends in part upon increasing our customer base, particularly those customers with potentially high customer lifetime values. Our ability to achieve significant growth in revenues in the future will depend, in large part, upon the effectiveness of our sales and marketing efforts, both domestically and internationally, and our ability to attract new customers. If we fail to attract new customers and maintain and expand those customer relationships, our revenues will grow more slowly than expected, and our business will be harmed.

Our future growth also depends upon expanding sales of our products to existing customers and their organizations. If our customers do not purchase additional licenses or capabilities, our revenues may grow more slowly than expected, may not grow at all or may decline. There can be no assurance that our efforts would result in increased sales to existing customers ("upsells") and additional revenues. If our efforts to upsell to our customers are not successful, our business would suffer. Additionally, while almost all of our software is currently licensed and sold under perpetual license agreements, we also enter into subscription license agreements with our customers and are currently transitioning to a more subscription-based business model. Due to the differences in average annual spending per customer, applied to perpetual versus subscription license sales, shifts in the mix of subscription licenses could produce significant variation in the revenues we recognize in a given period.

We have a history of losses, and we may not be profitable in the future.

We have incurred net losses in each year since our inception, including a net loss of $28.6 million, $13.8 million and $14.2 million in each of the years ended December 31, 2018, 2017 and 2016, respectively. Because the market for our software is rapidly evolving and has still not yet reached widespread adoption, it is difficult for us to predict our future results of operations. We expect our operating expenses to increase over the next several years as we hire additional personnel, particularly in our sales and marketing and research and development groups, expand and improve the effectiveness of our distribution channels, and continue to develop features and applications for our software.

Prolonged economic uncertainties or downturns could materially adversely affect our business.

Our business depends on our current and prospective customers’ ability and willingness to invest money in information technology services, including cybersecurity projects, which in turn is dependent upon their overall economic health.

Negative conditions in the general economy both in the United States and abroad, including conditions resulting from changes in gross domestic product growth, potential future government shutdowns, the federal government's failure to raise the debt ceiling, financial and credit market fluctuations, the imposition of trade barriers and restrictions such as tariffs, political deadlock, natural catastrophes, warfare and terrorist attacks, could cause a decrease in business investments, including corporate spending on enterprise software in general and negatively affect the rate of growth of our business.

Uncertainty in the global economy, particularly in EMEA, which accounted for approximately one-third of our revenues in 2018, and where we have experienced inconsistent quarterly growth rates over the last few years, makes it extremely difficult for our customers and us to forecast and plan future business activities accurately. This could cause our customers to reevaluate decisions to purchase our product or to delay their purchasing decisions, which could lengthen our sales cycles.

We have a significant number of customers in the financial services, public sector, healthcare and industrial industries. A substantial downturn in any of these industries, or a reduction in public sector spending, may cause enterprises to react to worsening conditions by reducing their capital expenditures in general or by specifically reducing their spending on information technology. Customers may delay or cancel information technology projects, choose to focus on in-house development efforts or seek to lower their costs by renegotiating maintenance and support agreements. To the extent purchases of licenses for our software are perceived by customers and potential customers to be discretionary, our revenues may be disproportionately affected by delays or reductions in general information technology spending. In addition, the increased pace of consolidation in certain industries may result in reduced overall spending on our software. If the economic conditions of the general economy or industries in which we operate worsen from present levels, our business, results of operations and financial condition could be adversely affected.

If our technical support, customer success or professional services are not satisfactory to our customers, they may not renew their maintenance and support agreements or buy future products, which could adversely affect our future results of operations.

Our business relies on our customers’ satisfaction with the technical support and professional services we provide to support our products. Our customers typically purchase one year of software maintenance and support as part of their initial purchase of our products, with an option to renew their maintenance agreements. In order for us to maintain and improve our results of operations, it is important that our existing customers renew their maintenance and support agreements and subscription licenses, if applicable, when the initial contract term expires. Our customers have no obligation to renew their maintenance and support agreements or subscription licenses with us after the initial terms have expired. For example, our maintenance renewal rate for each of the years ended December 31, 2018, 2017 and 2016 was over 90%. Customer satisfaction will become even more important as we shift more of our licensing to subscription license agreements.

If we fail to provide technical support services that are responsive, satisfy our customers’ expectations and resolve issues that they encounter with our products and services, then they may elect not to purchase or renew annual maintenance and support contracts and they may choose not to purchase additional products and services from us. Accordingly, our failure to provide satisfactory technical support or professional services could lead our customers not to renew their agreements with us or renew on terms less favorable to us, and therefore have a material and adverse effect on our business and results of operations.

Breaches in our security, cyberattacks or other cyber-risks could expose us to significant liability and cause our business and reputation to suffer.

Our operations involve transmission and processing of our customers' confidential, proprietary and sensitive information. We have legal and contractual obligations to protect the confidentiality and appropriate use of customer data. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks as a result of third party action, employee error or misconduct. Security risks, including, but not limited to, unauthorized use or disclosure of customer data, theft of proprietary information, loss or corruption of customer data and computer hacking attacks or other cyberattacks, could expose us to substantial litigation expenses and damages, indemnity and other contractual obligations, government fines and penalties, mitigation expenses and other liabilities. We are continuously working to improve our information technology systems, together with creating security boundaries around our critical and sensitive assets. We provide advanced security awareness training to our employees and contractors that focuses on various aspects of the cybersecurity world. All of these steps are taken in order to mitigate the risk of attack and to ensure our readiness to responsibly handle any security violation or attack. However, because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until successfully launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures and our products could be harmed, we could lose potential sales and existing customers, our ability to operate our business could be impaired, and we may incur significant liabilities.

If we are unable to maintain successful relationships with our channel partners, our business could be adversely affected.

We rely on channel partners, such as distribution partners and resellers, to sell licenses and support and maintenance agreements for our software. In 2018, our channel partners fulfilled substantially all of our sales, and we expect that sales to channel partners will continue to account for substantially all of our revenues for the foreseeable future. Our ability to achieve revenue growth in the future will depend in part on our success in maintaining successful relationships with our channel partners.

Our agreements with our channel partners are generally non-exclusive, meaning our channel partners may offer customers the products of several different companies. If our channel partners do not effectively market and sell our software, choose to use greater efforts to market and sell their own products or those of others, or fail to meet the needs of our customers, our ability to grow our business, sell our software and maintain our reputation may be adversely affected. Our contracts with our channel partners generally allow them to terminate their agreements for any reason upon 30 days' notice. A termination of the agreement has no effect on orders already placed. The loss of a substantial number of our channel partners, our possible inability to replace them, or the failure to recruit additional channel partners could materially and adversely affect our results of operations. If we are unable to maintain our relationships with these channel partners, our business, results of operations, financial condition or cash flows could be adversely affected.

Because we derive substantially all of our revenues and cash flows from sales of licenses from a single platform of products, failure of the products in the platform to satisfy customers or to achieve increased market acceptance would adversely affect our business.

In 2018, we generated substantially all of our revenues from sales of licenses from five of our current product families, DatAdvantage, DatAlert, Data Classification Engine, DataPrivilege and Data Transport Engine. We expect to continue to derive a majority of our revenues from license sales relating to this platform in the future. As such, market acceptance of this platform of products is critical to our continued success. Demand for licenses for our platform of products is affected by a number of factors, some of which are outside of our control, including continued market acceptance of our software by referenceable accounts for existing and new use cases, technological change and growth or contraction in our market. We expect the proliferation of enterprise data to lead to an increase in the data analysis demands, and data security and retention concerns, of our customers, and our software, including the software underlying our Data Security Platform, may not be able to scale and perform to meet those demands. If we are unable to continue to meet customer demands or to achieve more widespread market acceptance of our software, our business, operations, financial results and growth prospects will be materially and adversely affected.

Failure to protect our proprietary technology and intellectual property rights could substantially harm our business.

The success of our business depends on our ability to obtain, protect and enforce our trade secrets, trademarks, copyrights, patents and other intellectual property rights. We attempt to protect our intellectual property under patent, trademark, copyrights and trade secret laws, and through a combination of confidentiality procedures, contractual provisions and other methods, all of which offer only limited protection.

As of January 31, 2019, we had 63 issued patents in the United States and 38 pending U.S. patent applications. We also had 26 patents issued and 70 applications pending for examination in non-U.S. jurisdictions, and three pending PCT patent applications, all of which are counterparts of our U.S. patent applications. We may file additional patent applications in the future. The process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner all the way through to the successful issuance of a patent. We may choose not to seek patent protection for certain innovations and may choose not to pursue patent protection in certain jurisdictions. Furthermore, it is possible that our patent applications may not issue as granted patents, that the scope of our issued patents will be insufficient or not have the coverage originally sought, that our issued patents will not provide us with any competitive advantages, and that our patents and other intellectual property rights may be challenged by others or invalidated through administrative process or litigation. In addition, issuance of a patent does not guarantee that we have an absolute right to practice the patented invention. Our policy is to require our employees (and our consultants and service providers that develop intellectual property included in our products) to execute written agreements in which they assign to us their rights in potential inventions and other intellectual property created within the scope of their employment (or, with respect to consultants and service providers, their engagement to develop such intellectual property), but we cannot assure you that we have adequately protected our rights in every such agreement or that we have executed an agreement with every such party. Finally, in order to benefit from patent and other intellectual property protection, we must monitor, detect and pursue infringement claims in certain circumstances in relevant jurisdictions, all of which is costly and time-consuming. As a result, we may not be able to obtain adequate protection or to enforce our issued patents or other intellectual property effectively.

In addition to patented technology, we rely on our unpatented proprietary technology and trade secrets. Despite our efforts to protect our proprietary technologies and our intellectual property rights, unauthorized parties, including our employees, consultants, service providers or customers, may attempt to copy aspects of our products or obtain and use our trade secrets or other confidential information. We generally enter into confidentiality agreements with our employees, consultants, service providers, vendors, channel partners and customers, and generally limit access to and distribution of our proprietary information and proprietary technology through certain procedural safeguards. These agreements may not effectively prevent unauthorized use or disclosure of our intellectual property or technology and may not provide an adequate remedy in the event of unauthorized use or disclosure of our intellectual property or technology. We cannot assure you that the steps taken by us will prevent misappropriation of our trade secrets or technology or infringement of our intellectual property. In addition, the laws of some foreign countries where we operate do not protect our proprietary rights to as great an extent as the laws of the United States, and many foreign countries do not enforce these laws as diligently as government agencies and private parties in the United States.

Moreover, industries in which we operate, such as data security, cybersecurity, compliance, data retention and data governance are characterized by the existence of a large number of relevant patents and frequent claims and related litigation regarding patent and other intellectual property rights. From time to time, third parties have asserted and may assert their patent, copyright, trademark and other intellectual property rights against us, our channel partners or our customers. Successful claims of infringement or misappropriation by a third party could prevent us from distributing certain products or performing certain services or could require us to pay substantial damages (including, for example, treble damages if we are found to have willfully infringed patents and increased statutory damages if we are found to have willfully infringed copyrights), royalties or other fees. Such claims also could require us to cease making, licensing or using solutions that are alleged to infringe or misappropriate the intellectual property of others or to expend additional development resources to attempt to redesign our products or services or otherwise to develop non-infringing technology. Even if third parties may offer a license to their technology, the terms of any offered license may not be acceptable, and the failure to obtain a license or the costs associated with any license could cause our business, results of operations or financial condition to be materially and adversely affected. In some cases, we indemnify our channel partners and customers against claims that our products infringe the intellectual property of third parties. Defending against claims of infringement or being deemed to be infringing the intellectual property rights of others could impair our ability to innovate, develop, distribute and sell our current and planned products and services. If we are unable to protect our intellectual property rights and ensure that we are not violating the intellectual property rights of others, we may find ourselves at a competitive disadvantage to others who need not incur the additional expense, time and effort required to create the innovative products that have enabled us to be successful to date.

We may face increased competition in our market.

While there are some companies which offer certain features similar to those embedded in our solutions, as well as others with whom we compete in certain tactical use cases, we believe that we do not currently compete with a company that offers the same breadth of functionalities that we offer in a single integrated solution. Nevertheless, we do compete against a select group of software vendors, such as Veritas Technologies LLC and Quest Software that provide standalone solutions, similar to those found in our comprehensive software suite, in the specific markets in which we operate. We also face direct competition with respect to certain of our products, specifically Data Transport Engine, DatAnswers and DatAdvantage for Directory Services. As we continue to augment our functionality with insider threat detection and user behavior analytics and as we expand our classification capabilities to better serve compliance needs with new regulations, like GDPR and other data privacy laws, we may face increased perceived and real competition from other security and classification technologies. As we expand our coverage and penetration in the cloud, we may face increased perceived and real competition from other cloud-focused technologies. In the future, as customer requirements evolve and new technologies are introduced, we may experience increased competition if established or emerging companies develop solutions that address the enterprise data market. Furthermore, because we operate in a relatively new and evolving area, we anticipate that competition will increase based on customer demand for these types of products.

In particular, if a more established company were to target our market, we may face significant competition. They may have competitive advantages, such as greater name recognition, larger sales, marketing, research and acquisition resources, access to larger customer bases and channel partners, a longer operating history and lower labor and development costs, which may enable them to respond more quickly to new or emerging technologies and changes in customer requirements or devote greater resources to the development, promotion and sale of their products than we do. Increased competition could result in us failing to attract customers or maintain licenses at the same rate. It could also lead to price cuts, alternative pricing structures or the introduction of products available for free or a nominal price, reduced gross margins, longer sales cycles and loss of market share.

In addition, our current or prospective channel partners may establish cooperative relationships with any future competitors. These relationships may allow future competitors to rapidly gain significant market share. These developments could also limit our ability to obtain revenues from existing and new customers.

Our ability to compete successfully in our market will also depend on a number of factors, including ease and speed of product deployment and use, the quality and reliability of our customer service and support, total cost of ownership, return on investment and brand recognition. Any failure by us to successfully address current or future competition in any one of these or other areas may reduce the demand for our products and adversely affect our business, results of operations and financial condition.

Interruptions or performance problems, including associated with our website or support website or any caused by cyberattacks, may adversely affect our business.

Our continued growth depends in part on the ability of our existing and potential customers to quickly access our website and support website. Access to our support website is also imperative to our daily operations and interaction with customers, as it allows customers to download our software, fixes and patches, as well as open and respond to support tickets and register license keys for evaluation or production purposes. We have experienced, and may in the future experience, website disruptions, outages and other performance problems due to a variety of factors, including technical failures, cyberattacks, natural disasters, infrastructure changes, human or software errors, capacity constraints due to an overwhelming number of users accessing our website simultaneously and denial of service or fraud. In some instances, we may not be able to identify the cause or causes of these website performance problems within an acceptable period of time. It may become increasingly difficult to maintain and improve the performance of our websites, especially during peak usage times and as our software becomes more complex and our user traffic increases. If our websites are unavailable or if our users are unable to download our software, patches or fixes within a reasonable amount of time or at all, we may suffer reputational harm and our business would be negatively affected.

Real or perceived errors, failures or bugs in our software could adversely affect our growth prospects.

Because our software uses complex technology, undetected errors, failures or bugs may occur. Our software is often installed and used in a variety of computing environments with different operating system management software, and equipment and networking configurations, which may cause errors or failures of our software or other aspects of the computing environment into which it is deployed. In addition, deployment of our software into computing environments may expose undetected errors, compatibility issues, failures or bugs in our software. Despite testing by us, errors, failures or bugs may not be found in our software until it is released to our customers. Moreover, our customers could incorrectly implement or inadvertently misuse our software, which could result in customer dissatisfaction and adversely impact the perceived utility of our products as well as our brand. Any of these real or perceived errors, compatibility issues, failures or bugs in our software could result in negative publicity, reputational harm, loss of or delay in market acceptance of our software, loss of competitive position or claims by customers for losses sustained by them. In such an event, we may be required, or may choose, for customer relations or other reasons, to expend additional resources in order to help correct the problem.

If our software is perceived as not being secure, customers may reduce the use of or stop using our software, and we may incur significant liabilities.

Our software involves the transmission of data between data stores, and between data stores and desktop and mobile computers, and may in the future involve the storage of data. Any security breaches with respect to such data could result in the loss of this information, litigation, indemnity obligations and other liabilities. While we have taken steps to protect the confidential information that we have access to, including confidential information we may obtain through our customer support services or customer usage of our products, we have no direct control over the substance of the content. Therefore, if customers use our software for the transmission of personally identifiable information and our security measures are breached as a result of third-party action, employee error, malfeasance or otherwise, our reputation could be damaged, our business may suffer and we could incur significant liability. Because techniques used to obtain unauthorized access or sabotage systems change frequently and generally are not identified until they are launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. While we maintain insurance coverage for some of the above events, the potential liabilities associated with these events could exceed the insurance coverage we maintain. Any or all of these issues could tarnish our reputation, negatively impact our ability to attract new customers or sell additional products to our existing customers, cause existing customers to elect not to renew their maintenance and support agreements or subject us to third-party lawsuits, regulatory fines or other action or liability, thereby adversely affecting our results of operations.

We are subject to a number of legal requirements, contractual obligations and industry standards regarding security, data protection and privacy, and any failure to comply with these requirements, obligations or standards could have an adverse effect on our reputation, business, financial condition and operating results.

Privacy and data information security have become a significant issue in the United States and in many other countries where we have employees and operations and where we offer licenses to our products. The regulatory framework for privacy and personal information security issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. The U.S. federal and various state and foreign government bodies and agencies have adopted or are considering adopting laws and regulations limiting, or laws and regulations regarding, the collection, distribution, use, disclosure, storage and security of personal information. For example, California recently enacted the California Consumer Privacy Act, or CCPA, that will, among other things, require covered companies to provide new disclosures to California consumers, and afford such consumers new abilities to opt-out of certain sales of personal information, when it goes into effect on January 1, 2020. The CCPA recently was amended, and it is possible that it will be amended again before it goes into effect.

Internationally, virtually every jurisdiction in which we operate has established its own data security and privacy legal framework with which we or our customers must comply. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure and security of data that identifies or may be used to identify or locate an individual, such as names, email addresses and, in some jurisdictions, Internet Protocol addresses. These laws and regulations often are more restrictive than those in the United States and are rapidly evolving. For example, the new EU data protection regime, the GDPR became enforceable on May 25, 2018. Additionally, the United Kingdom enacted legislation in May 2018 that substantially implements the GDPR. Complying with the GDPR or other laws, regulations or other obligations relating to privacy, data protection or information security may cause us to incur substantial operational costs or require us to modify our data handling practices. Non-compliance could result in proceedings against us by governmental entities or others, could result in substantial fines or other liability and may otherwise adversely impact our business, financial condition and operating results.

Some statutory requirements, both in the United States and abroad, include obligations of companies to notify individuals of security breaches involving particular personal information, which could result from breaches experienced by us or our service providers. Even though we may have contractual protections with our service providers, a security breach could impact our reputation, harm our customer confidence, hurt our sales or cause us to lose existing customers and could expose us to potential liability or require us to expend significant resources on data security and in responding to such breach.

In addition to government regulation, privacy advocates and industry groups may propose new and different self-regulatory standards that either legally or contractually apply to us. We also expect that there will continue to be new proposed laws and regulations concerning privacy, data protection and information security, and we cannot yet determine the impact such future laws, regulations and standards may have on our business. New laws, amendments to or re-interpretations of existing laws and regulations, industry standards, contractual obligations and other obligations may require us to incur additional costs and restrict our business operations. Because the interpretation and application of laws and other obligations relating to privacy and data protection are still uncertain, it is possible that these laws and other obligations may be interpreted and applied in a manner that is inconsistent with our existing data management practices or the features of our software. If so, in addition to the possibility of fines, lawsuits and other claims, we could be required to fundamentally change our business activities and practices or modify our software, which could have an adverse effect on our business. We may be unable to make such changes and modifications in a commercially reasonable manner or at all, and our ability to develop new features could be limited. Any inability to adequately address privacy concerns, even if unfounded, or comply with applicable privacy or data protection laws, regulations and policies, could result in additional cost and liability to us, damage our reputation, inhibit sales and adversely affect our business.

Furthermore, the costs of compliance with, and other burdens imposed by, the laws, regulations and policies that are applicable to the businesses of our customers may limit the use and adoption of, and reduce the overall demand for, our products. Privacy and personal information security concerns, whether valid or not valid, may inhibit market adoption of our products particularly in certain industries and foreign countries.

Our long-term growth depends, in part, on being able to continue to expand internationally on a profitable basis, which subjects us to risks associated with conducting international operations.

Historically, we have generated a majority of our revenues from customers in North America. For the year ended December 31, 2018, approximately 62% of our total revenues were derived from sales in North America. Nevertheless, we have operations across the globe, and we plan to continue to expand our international operations as part of our long-term growth strategy. The further expansion of our international operations will subject us to a variety of risks and challenges, including:

- sales and customer service challenges associated with operating in different countries;
- increased management travel, infrastructure and legal compliance costs associated with having multiple international operations;
- difficulties in receiving payments from different geographies, including difficulties associated with currency fluctuations, payment cycles, transfer of funds or collecting accounts receivable, especially in emerging markets;
- variations in economic or political conditions between each country or region;
- economic uncertainty around the world and adverse effects arising from economic interdependencies across countries and regions;
- uncertainty around a potential reverse or renegotiation of international trade agreements and partnerships under the administration of U.S. President Donald J. Trump;
- uncertainty around how the United Kingdom's referendum in June 2016 in which voters approved an exit from the EU, commonly referred to as "Brexit," will impact the United Kingdom's access to the EU Single Market, the related regulatory environment, the global economy and the resulting impact on our business;
- compliance with foreign laws and regulations and the risks and costs of non-compliance with such laws and regulations;
- compliance with laws and regulations for foreign operations, including the U.S. Foreign Corrupt Practices Act of 1977, or the FCPA, the U.K. Bribery Act of 2010, import and export control laws, tariffs, trade barriers, economic sanctions and other regulatory or contractual limitations on our ability to sell our software in certain foreign markets, and the risks and costs of non-compliance;
- heightened risks of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements that may impact financial results and result in restatements of financial statements and irregularities in financial statements;
- reduced protection for intellectual property rights in certain countries and practical difficulties and costs of enforcing rights abroad; and
- compliance with the laws of numerous foreign taxing jurisdictions and overlapping of different tax regimes.

Any of these risks could adversely affect our international operations, reduce our revenues from outside the United States or increase our operating costs, adversely affecting our business, results of operations and financial condition and growth prospects. There can be no assurance that all of our employees, independent contractors and channel partners will comply with the formal policies we have and will implement, or applicable laws and regulations. Violations of laws or key control policies by our employees, independent contractors and channel partners could result in delays in revenue recognition, financial reporting misstatements, fines, penalties or the prohibition of the importation or exportation of our software and services and could have a material adverse effect on our business and results of operations.

If currency exchange rates fluctuate substantially in the future, our results of operations, which are reported in U.S. dollars, could be adversely affected.

Our functional and reporting currency is the U.S. dollar, and we generate a majority of our revenues and incur a majority of our expenses in U.S. dollars. Revenues and expenses are also incurred in other currencies, primarily Euros, Pounds Sterling, Canadian dollars, Australian dollars and New Israeli Shekels ("NIS"). Accordingly, changes in exchange rates may have a material adverse effect on our business, results of operations and financial condition. The exchange rates between the U.S. dollar and foreign currencies have fluctuated substantially in recent years and may continue to fluctuate substantially in the future. Furthermore, a strengthening of the U.S. dollar could increase the cost in local currency of our software and our maintenance renewals to customers outside the United States, which could adversely affect our business, results of operations, financial condition and cash flows. Volatility in exchange rates may continue in the short term as the United Kingdom negotiates its exit from the EU which is currently scheduled to occur on March 29, 2019. Brexit and the withdrawal of the United Kingdom from the EU, as well as other member countries' public discussions about the possibility of withdrawing from the EU, may also create global economic uncertainty, which may impact, among other things, the demand for our products.

We incur expenses for employee compensation and other operating expenses at our non-U.S. locations in local currencies. The weakening of the U.S. dollar against such currencies would cause the U.S. dollar equivalent of such expenses to increase which could have a negative impact on our reported results of operations. We use forward foreign exchange contracts to hedge or mitigate the effect of changes in foreign exchange rates on our operating expenses denominated in certain foreign currencies. However, this strategy might not eliminate our exposure to foreign exchange rate fluctuations and involves costs and risks of its own, such as cash expenditures, ongoing management time and expertise, external costs to implement the strategy and potential accounting implications. Additionally, our hedging activities may contribute to increased losses as a result of volatility in foreign currency markets.

Our use of open source software could negatively affect our ability to sell our software and subject us to possible litigation.

We use open source software and expect to continue to use open source software in the future. Some open source software licenses require users who distribute open source software as part of their own software product to publicly disclose all or part of the source code to such software product or to make available any derivative works of the open source code on unfavorable terms or at no cost. We may face ownership claims of third parties over, or seeking to enforce the license terms applicable to, such open source software, including by demanding the release of the open source software, derivative works or our proprietary source code that was developed using such software. These claims could also result in litigation, require us to purchase a costly license or require us to devote additional research and development resources to change our software, any of which would have a negative effect on our business and results of operations. In addition, if the license terms for the open source code change, we may be forced to re-engineer our software or incur additional costs. Finally, we cannot assure you that we have incorporated open source software into our own software in a manner that conforms with our current policies and procedures.

Our business is highly dependent upon our brand recognition and reputation, and the failure to maintain or enhance our brand recognition or reputation may adversely affect our business.

We believe that enhancing the “Varonis” brand identity and maintaining our reputation in the information technology industry is critical to our relationships with our customers and to our ability to attract new customers. Our brand recognition and reputation is dependent upon:

- our ability to continue to offer high-quality, innovative and error- and bug-free products;
- our ability to maintain customer satisfaction with our products;
- our ability to be responsive to customer concerns and provide high quality customer support, training and professional services;
- our marketing efforts;
- any misuse or perceived misuse of our products;
- positive or negative publicity;
- interruptions, delays or attacks on our website; and
- litigation or regulatory-related developments.

We may not be able to successfully promote our brand or maintain our reputation. In addition, independent industry analysts often provide reviews of our products, as well as other products available in the market, and perception of our product in the marketplace may be significantly influenced by these reviews. If these reviews are negative, or less positive than reviews about other products available in the market, our brand may be adversely affected. Furthermore, negative publicity relating to events or activities attributed to us, our employees, our channel partners or others associated with any of these parties, may tarnish our reputation and reduce the value of our brand. Damage to our reputation and loss of brand equity may reduce demand for our products and have an adverse effect on our business, results of operations and financial condition. Any attempts to rebuild our reputation and restore the value of our brand may be costly and time consuming, and such efforts may not ultimately be successful.

Moreover, it may be difficult to enhance our brand and maintain our reputation in connection with sales to channel partners. Promoting our brand requires us to make significant expenditures, and we anticipate that the expenditures will increase as our market becomes more competitive, as we expand into new markets and geographies and as more sales are generated to our channel partners. To the extent that these activities yield increased revenues, these revenues may not offset the increased expenses we incur. If we do not successfully enhance our brand and maintain our reputation, our business may not grow, we may have reduced pricing power relative to competitors with stronger brands, and we could lose customers, all of which would adversely affect our business, operations and financial results.

False detection of security breaches, false identification of malicious sources or misidentification of sensitive or regulated information could adversely affect our business.

Our cybersecurity products may falsely detect threats that do not actually exist. For example, our DatAlert product may enrich metadata collected by our products with information from external sources and third-party data providers. If the information from these data providers is inaccurate, the potential for false positives increases. These false positives, while typical in the industry, may affect the perceived reliability of our products and solutions and may therefore adversely impact market acceptance of our products. As definitions and instantiations of personal identifiers and other sensitive content change, automated classification technologies may falsely identify or fail to identify data as sensitive. If our products and solutions fail to detect exposures or restrict access to important systems, files or applications based on falsely identifying legitimate use as an attack or otherwise unauthorized, then our customers' businesses could be adversely affected. Any such false identification of use and subsequent restriction could result in negative publicity, loss of customers and sales, increased costs to remedy any problem and costly litigation.

Our success depends in part on maintaining and increasing our sales to customers in the public sector.

We derive a portion of our revenues from contracts with federal, state, local and foreign governments and government-owned or -controlled entities (such as public health care bodies, educational institutions and utilities), which we refer to as the public sector herein. We believe that the success and growth of our business will continue to depend on our successful procurement of public sector contracts. Selling to public sector entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that our efforts will produce any sales. Factors that could impede our ability to maintain or increase the amount of revenues derived from public sector contracts include:

- changes in public sector fiscal or contracting policies;
- decreases in available public sector funding;
- changes in public sector programs or applicable requirements;
- the adoption of new laws or regulations or changes to existing laws or regulations;
- potential delays or changes in the public sector appropriations or other funding authorization processes;
- the requirement of contractual terms that are unfavorable to us, such as most-favored-nation pricing provisions; and
- delays in the payment of our invoices by public sector payment offices.

Furthermore, we must comply with laws and regulations relating to public sector contracting, which affect how we and our channel partners do business in both the United States and abroad. These laws and regulations may impose added costs on our business, and failure to comply with these or other applicable regulations and requirements, including non-compliance in the past, could lead to claims for damages from our channel partners, penalties, termination of contracts, and temporary suspension or permanent debarment from public sector contracting.

The occurrence of any of the foregoing could cause public sector customers to delay or refrain from purchasing licenses of our software in the future or otherwise have an adverse effect on our business, operations and financial results.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

We incorporate encryption technology into certain of our products and these products are subject to U.S. export control. We are also subject to Israeli export controls on encryption technology since our product development initiatives are primarily conducted by our wholly-owned Israeli subsidiary. We have obtained the required licenses to export our products outside of the United States. In addition, the current encryption means used in our products are listed in the "free means encryption items" published by the Israeli Ministry of Defense, which means we are exempt from obtaining an encryption control license. If the applicable U.S. or Israeli legal requirements regarding the export of encryption technology were to change or if we change the encryption means in our products, we may need to apply for new licenses in the United States and may no longer be able to rely on our licensing exception in Israel. There can be no assurance that we will be able to obtain the required licenses under these circumstances. Furthermore, various other countries regulate the import of certain encryption technology, including import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our products or could limit our customers' ability to implement our products in those countries.

We are also subject to U.S. and Israeli export control and economic sanctions laws, which prohibit the shipment of certain products to embargoed or sanctioned countries, governments and persons. Our products could be exported to these sanctioned targets by our channel partners despite the contractual undertakings they have given us and any such export could have negative consequences, including government investigations, penalties and reputational harm. Moreover, the Trump Administration may create further uncertainty regarding export or import regulations, economic sanctions or related legislation. It remains unclear what specifically President Trump would or would not do with respect to the initiatives he has raised and what support he would have to implement any such potential changes. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products would likely adversely affect our business, financial condition and results of operations.

Our business in countries with a history of corruption and transactions with foreign governments increase the risks associated with our international activities.

As we operate and sell internationally, we are subject to the FCPA and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties for the purpose of obtaining or retaining business. We have operations, deal with and make sales to governmental customers in countries known to experience corruption, particularly certain emerging countries in Eastern Europe, South and Central America, East Asia, Africa and the Middle East. Our activities in these countries create the risk of unauthorized payments or offers of payments by one of our employees, consultants, channel partners or sales agents that could be in violation of various anti-corruption laws, even though these parties may not be under our control. While we have implemented safeguards to prevent these practices by our employees, consultants, channel partners and sales agents, our existing safeguards and any future improvements may prove to be less than effective, and our employees, consultants, channel partners or sales agents may engage in conduct for which we might be held responsible. Violations of the FCPA or other anti-corruption laws may result in severe criminal or civil sanctions, including suspension or debarment from government contracting, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition.

Our tax rate may vary significantly depending on our stock price.

The tax effects of the accounting for stock-based compensation may significantly impact our effective tax rate from period to period. In periods in which our stock price is higher than the grant price of the stock-based compensation vesting in that period, we will recognize excess tax benefits that will decrease our effective tax rate. In future periods in which our stock price is lower than the grant price of the stock-based compensation vesting in that period, our effective tax rate may increase. The amount and value of stock-based compensation issued relative to our earnings in a particular period will also affect the magnitude of the impact of stock-based compensation on our effective tax rate. These tax effects are dependent on our stock price, which we do not control, and a decline in our stock price could significantly increase our effective tax rate and adversely affect our financial results.

Multiple factors may adversely affect our ability to fully utilize our net operating loss carryforwards.

A U.S. corporation's ability to utilize its federal net operating loss (“NOL”) carryforwards is limited under Section 382 of the Internal Revenue Code of 1986, as amended (the “Code”), if the corporation undergoes an ownership change. We performed a Section 382 analysis (the “Analysis”) which concluded that our ability to utilize our NOL and tax credit carryforwards is subject to an annual limitation, as we underwent a section 382 ownership change during 2017. The Analysis further concluded that our NOL carryforwards should be available for our utilization before they expire. As of December 31, 2017, our NOL carryforwards was $22.9 million.

During 2018, we generated an additional $32.0 million of NOLs, which are not subject to the annual limitation described above. Future changes in our stock ownership, including future offerings, as well as changes that may be outside of our control, could result in a subsequent ownership change under Section 382 of the Code that would impose an annual limitation on NOLs generated after December 31, 2017. In addition, the cash tax benefit from our NOLs is dependent upon our ability to generate sufficient taxable income. Accordingly, we may be unable to earn enough taxable income in order to fully utilize our current NOLs.

Changes in our provision for income taxes or adverse outcomes resulting from examination of our income tax returns could adversely affect our results.

We are subject to income taxation in the United States, Israel and numerous other jurisdictions. Determining our provision for income taxes requires significant management judgment. In addition, our provision for income taxes could be adversely affected by many factors, including, among other things, changes to our operating structure, changes in the amounts of earnings in jurisdictions with different statutory tax rates, changes in the valuation of deferred tax assets and liabilities and changes in tax laws. Significant judgment is required to determine the recognition and measurement attributes prescribed in Accounting Standards Codification (“ASC 740-10-25”). ASC 740-10-25 applies to all income tax positions, including the potential recovery of previously paid taxes, which if settled unfavorably could adversely impact our provision for income taxes. Our income in certain countries is subject to reduced tax rates provided we meet certain ongoing employment and capital investment commitments. Failure to meet these commitments could adversely impact our provision for income taxes.

We are also subject to the continuous examination of our income tax returns by the U.S. Internal Revenue Services and other tax authorities in various jurisdictions. Tax authorities may disagree with our intercompany charges, cross-jurisdictional transfer pricing or other matters and assess additional taxes. While we regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes, there can be no assurance that the outcomes from these continuous examinations will not have a material adverse effect on our results of operations and cash flows. Further, we may be audited in various jurisdictions, and such jurisdictions may assess additional taxes against us. Although we believe our tax estimates are reasonable, the final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our results of operations or cash flows in the period or periods for which a determination is made.

The adoption of the U.S. tax reform and the enactment of additional legislation changes could materially impact our financial position and results of operations.

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act (the "TCJA") that significantly reforms the Code. The TCJA, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of certain expenses, restricts the use of net operating loss carryforwards arising after December 31, 2017, allows for the expensing of capital expenditures, and puts into effect the migration from a “worldwide” system of taxation to a territorial system. Due to the expansion of our international business activities, any changes in the U.S. taxation of such activities may increase our worldwide effective tax rate and adversely affect our financial position and results of operations. Further, foreign governments may enact tax laws in response to the TCJA that could result in further changes to global taxation and materially affect our financial position and results of operations.

We conduct our operations in a number of jurisdictions worldwide and report our taxable income based on our business operations in those jurisdictions. Therefore, our intercompany relationships are subject to transfer pricing regulations administered by taxing authorities in various jurisdictions. The relevant taxing authorities may disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position were not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations.

The Organization for Economic Cooperation and Development (“OECD”) introduced the base erosion and profit shifting project in 2013, which sets out a plan to address international taxation principles in a globalized, digitized business world (the “BEPS Plan”). In November 2015, the G20 adopted the OECD’s published guidance on domestic legislation and administrative changes to address the BEPS Plan action points. During 2018, as part of the BEPS Plan, more than 80 countries have been implementing the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS (“MLI”). The MLI significantly changes the bilateral tax treaties signed by any country that chose to sign the MLI. Further, as a result of participating countries adopting the international tax policies set under the BEPS Plan, changes have been and continue to be made to numerous international tax principles and local tax regimes. Due to the expansion of our international business activities, those modifications may increase our worldwide effective tax rate and adversely affect our financial position.

Changes in financial accounting standards may cause adverse and unexpected revenue fluctuations and impact our reported results of operations.

A change in accounting standards or practices could harm 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. Changes to existing rules or the questioning of current practices may harm our operating results or the way we conduct our business. Additionally, the adoption of new or revised accounting principles may require that we make significant changes to our systems process and controls.

Acquisitions could disrupt our business and adversely affect our results of operations, financial condition and cash flows.

We may make acquisitions that could be material to our business, results of operations, financial condition and cash flows. Our ability as an organization to successfully acquire and integrate technologies or businesses is unproven. Acquisitions involve many risks, including the following:

- an acquisition may negatively affect our results of operations, financial condition or cash flows because it may require us to incur charges or assume substantial debt or other liabilities, may cause adverse tax consequences or unfavorable accounting treatment, including potential write-downs of deferred revenues, may expose us to claims and disputes by third parties, including intellectual property claims and disputes, or may not generate sufficient financial return to offset additional costs and expenses related to the acquisition;
- we may encounter difficulties or unforeseen expenditures in integrating the business, technologies, products, personnel or operations of any company that we acquire, particularly if key personnel of the acquired company decide not to work for us;
- an acquisition may disrupt our ongoing business, divert resources, increase our expenses and distract our management;
- an acquisition may result in a delay or reduction of customer purchases for both us and the company we acquired due to customer uncertainty about continuity and effectiveness of service from either company;
- we may encounter difficulties in, or may be unable to, successfully sell any acquired products;
- an acquisition may involve the entry into geographic or business markets in which we have little or no prior experience or where competitors have stronger market positions;
- challenges inherent in effectively managing an increased number of employees in diverse locations;
- the potential strain on our financial and managerial controls and reporting systems and procedures;
- potential known and unknown liabilities or deficiencies associated with an acquired company that were not identified in advance;
- our use of cash to pay for acquisitions would limit other potential uses for our cash and affect our liquidity;
- if we incur debt to fund such acquisitions, such debt may subject us to material restrictions on our ability to conduct our business as well as financial maintenance covenants;
- the risk of impairment charges related to potential write-downs of acquired assets or goodwill in future acquisitions;
- to the extent that we issue a significant amount of equity or convertible debt securities in connection with future acquisitions, existing stockholders may be diluted and earnings per share may decrease; and
- managing the varying intellectual property protection strategies and other activities of an acquired company.

We may not succeed in addressing these or other risks or any other problems encountered in connection with the integration of any acquired business. The inability to integrate successfully the business, technologies, products, personnel or operations of any acquired business, or any significant delay in achieving integration, could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We may require additional capital to support our business growth, and this capital might not be available on acceptable terms, or at all.

We continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new features or enhance our software, improve our operating infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financing to secure additional funds. If we raise additional funds through future 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 that we may secure 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. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be adversely affected.

Our business is subject to the risks of fire, power outages, floods, earthquakes and other catastrophic events, and to interruption by manmade problems such as terrorism.

A significant natural disaster, such as a fire, flood or an earthquake, or a significant power outage could have a material adverse impact on our business, results of operations and financial condition. In the event our customers' information technology systems or our channel partners' selling or distribution abilities are hindered by any of these events, we may miss financial targets, such as revenues and sales targets, for a particular quarter. Further, if a natural disaster occurs in a region from which we derive a significant portion of our revenue, customers in that region may delay or forego purchases of our products, which may materially and adversely impact our results of operations for a particular period. In addition, acts of terrorism could cause disruptions in our business or the business of channel partners, customers or the economy as a whole. Given our typical concentration of sales at each quarter end, any disruption in the business of our channel partners or customers that impacts sales at the end of our quarter could have a significant adverse impact on our quarterly results. All of the aforementioned risks may be augmented if the disaster recovery plans for us and our channel partners prove to be inadequate. To the extent that any of the above results in delays or cancellations of customer orders, or the delay in the manufacture, deployment or shipment of our products, our business, financial condition and results of operations would be adversely affected.

Risks Related to our Operations in Israel

Conditions in Israel may limit our ability to develop and sell our products, which could result in a decrease of our revenues.

Our principal research and development facility, which also houses a portion of our support and general and administrative teams, is located in Israel. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its neighboring countries, as well as incidents of terror activities and other hostilities, and a number of state and non-state actors have publicly committed to its destruction. Political, economic and security conditions in Israel could directly affect our operations. We could be adversely affected by hostilities involving Israel, including acts of terrorism or any other hostilities involving or threatening Israel, the interruption or curtailment of trade between Israel and its trading partners, a significant increase in inflation or a significant downturn in the economic or financial condition of Israel. Any on-going or future armed conflicts, terrorist activities, tension along the Israeli borders or with other countries in the region, including Iran, or political instability in the region could disrupt international trading activities in Israel and may materially and negatively affect our business and could harm our results of operations.

Certain countries, as well as certain companies and organizations, continue to participate in a boycott of Israeli companies, companies with large Israeli operations and others doing business with Israel and Israeli companies. The boycott, restrictive laws, policies or practices directed towards Israel, Israeli businesses or Israeli citizens could, individually or in the aggregate, have a material adverse effect on our business in the future.

Some of our officers and employees in Israel are obligated to perform routine military reserve duty in the Israel Defense Forces, depending on their age and position in the armed forces. Furthermore, they have been and may in the future be called to active reserve duty at any time under emergency circumstances for extended periods of time. Our operations could be disrupted by the absence, for a significant period, of one or more of our officers or key employees due to military service, and any significant disruption in our operations could harm our business.

The tax benefits that are available to our Israeli subsidiary require it to continue to meet various conditions and may be terminated or reduced in the future, which could increase its taxes.

Our Israeli subsidiary benefits from a status of a "Beneficiary Enterprise" under the Israeli Law for the Encouragement of Capital Investments, 5719-1959, or the Investment Law. Based on an evaluation of the relevant factors under the Investment Law, including the level of foreign (i.e., non-Israeli) investment in our company, we have determined that the effective tax rate to be paid by our Israeli subsidiary as a "Beneficiary Enterprise" has historically been approximately 10%. If our Israeli subsidiary does not meet the requirements for maintaining this status, for example, if the Israeli subsidiary materially changes the nature of its business or, if the level of foreign investment in our company decreases, it may no longer be eligible to enjoy this reduced tax rate. As a result, our Israeli subsidiary would be subject to Israeli corporate tax at the standard rate, which, as of January 1, 2019, was set at 23%. Even if our Israeli subsidiary continues to meet the relevant requirements, the tax benefits that the status of “Beneficiary Enterprise” provides may not be continued in the future at their current levels or at all. If these tax benefits were reduced or eliminated, the amount of taxes that our Israeli subsidiary would pay would likely increase, as all of our Israeli operations would consequently be subject to corporate tax at the standard rate, which could adversely affect our results of operations. Additionally, if our Israeli subsidiary increases its activities outside of Israel, for example, through acquisitions, these activities may not be eligible for inclusion in Israeli tax benefit programs. The tax benefit derived from the status of “Beneficiary Enterprise” is dependent upon the ability to generate sufficient taxable income. Accordingly, our Israeli subsidiary may be unable to earn enough taxable income in order to fully utilize its tax benefits.

Risks Related to the Ownership of our Common Stock

Our stock price has been and will likely continue to be volatile.

The market price for our common stock has been, and is likely to continue to be, volatile for the foreseeable future. For example, since shares of our common stock were sold in our initial public offering ("IPO") in March 2014 at a price of $22.00 per share, our common stock's price on The Nasdaq Global Select Market has ranged from $13.25 to $83.10 through February 8, 2019. On February 8, 2019, the closing price of our common stock was $62.74. The market price of our common stock may fluctuate significantly in response to a number of factors, many of which we cannot predict or control, including the factors listed below and other factors described in this "Risk Factors" section:

- actual or anticipated fluctuations in our results or those of our competitors;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- failure of securities analysts to initiate or maintain coverage of our company, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- ratings changes by any securities analysts who follow our company;
- announcements of new products, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;
- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- price and volume fluctuations in in certain categories of companies or the overall stock market, including as a result of trends in the global economy;
- changes in accounting principles;
- sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;
- additions or departures of any of our key personnel;
- lawsuits threatened or filed against us;
- short sales, hedging and other derivative transactions involving our capital stock;
- general economic conditions in the United States and abroad;
- changing legal or regulatory developments in the United States and other countries; and
- other events or factors, including those resulting from war, incidents of terrorism or responses to these events.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many technology companies. Stock prices of many technology companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and adversely affect our business, results of operations, financial condition and cash flows.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business, our market and our competitors. We do not have any control over these analysts or their expectations regarding our performance on a quarterly or annual basis. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our stock price would likely decline. If we fail to meet one or more of these analysts' published expectations regarding our performance on a quarterly basis, our stock price or trading volume could decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Substantial future sales of shares of our common stock could cause the market price of our common stock to decline.

Sales of a substantial number of shares of our common stock into 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 such sales may have on the prevailing market price of our common stock.

As of December 31, 2018, we had options and restricted stock units (“RSUs”) outstanding that, if fully vested and exercised, would result in the issuance of approximately 3.2 million shares of our common stock. All of the shares of our common stock issuable upon exercise of options and vesting of RSUs have been registered for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market upon issuance as permitted by any applicable vesting requirements.

The requirements of being a public company may strain our resources, divert management’s attention and affect our ability to attract and retain executive management and qualified board members.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the listing requirements of The Nasdaq Global Select Market and other applicable securities rules and regulations. Compliance with these rules and regulations have increased our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources.

The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and results of operations. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight is required. As a result, management’s attention may be diverted from other business concerns, which could adversely affect our business and results of operations. We may need to hire more employees in the future or engage outside consultants, which will increase our costs and expenses. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Being a public company, these rules and regulations have made it more expensive for us to obtain director and officer liability insurance, and in the future we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit and compensation committees, and qualified executive officers.

As a result of disclosure of information in our filings with the SEC, our business and financial condition have become more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and results of operations could be adversely affected, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and adversely affect our business and results of operations.

We are obligated to develop and maintain proper and effective internal control over financial reporting. These internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We are required, pursuant to Section 404 of the Sarbanes–Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting on an annual basis. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting. We are also required to have our independent registered public accounting firm issue an opinion on the effectiveness of our internal control over financial reporting on an annual basis. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective.

If we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause the price of our common stock to decline, and we may be subject to investigation or sanctions by the SEC.

Future sales and issuances of our capital stock or rights to purchase capital stock could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to decline.

Future sales and issuances of our capital stock or rights to purchase our capital stock could result in substantial dilution to our existing stockholders. We may sell common stock, convertible securities and other equity securities in one or more transactions at prices and in a manner as we may determine from time to time. If we sell any such securities in subsequent transactions, investors may be materially diluted. New investors in such subsequent transactions could gain rights, preferences and privileges senior to those of holders of our common stock.

We do not intend to pay dividends on our common stock, so any returns will be limited to the value of our stock.

We have never declared or paid cash dividends on our common stock. We currently anticipate that we will retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors and will be dependent on a number of factors, including our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant. In addition, the loan agreement for our credit facility contains a prohibition on the payment of cash dividends. Until such time that we pay a dividend, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

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

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may delay or prevent an acquisition of us or a change in our management. These provisions include:

- authorizing “blank check” preferred stock, which could be issued by the board without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock, which would increase the number of outstanding shares and could thwart a takeover attempt;
- a classified board of directors whose members can only be dismissed for cause;
- the prohibition on actions by written consent of our stockholders;
- the limitation on who may call a special meeting of stockholders;
- the establishment of advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon at stockholder meetings; and
- the requirement of at least 75% of the outstanding capital stock to amend any of the foregoing second through fifth provisions.

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

Item 1B. Unresolved Staff Comments

We do not have any unresolved comments from the SEC staff.

Item 2. Properties

Our corporate headquarters are located in New York City in an office consisting of approximately 46,000 square feet. This lease expires in February 2026, although we have the option to both terminate the lease in February 2023 and extend the lease for an additional five years. We also lease offices in North Carolina consisting of approximately 23,700 square feet, which is our primary U.S. customer support and inside sales center. As of January 1, 2019, we are also leasing an additional office in North Carolina, consisting of approximately 68,500 square feet which will replace the current offices in North Carolina once the construction work is completed. This lease expires in July 2030, although we have an option to extend the lease for an additional 10 years. Additionally, we currently lease an office located in Herzliya, Israel, consisting of approximately 93,000 square feet, where we employ our research and development team and a portion of our support and general and administrative teams. The lease for this office expires in December 2028, although we have the option to extend the lease for an additional five years. We also lease smaller offices in France, the United Kingdom, Ireland, Oregon, Virginia, Australia, Germany and the Netherlands (which serve as regional sales offices and some of which are customer support centers) and two additional offices in Herzliya, Israel (which house a portion of our research and development and general and administrative teams). We plan to invest in additional space as needed to accommodate our growth.

Item 3. Legal Proceedings

We are not currently a party to any material litigation.

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 for Registrant's Common Equity

Our common stock has been listed on The NASDAQ Global Select Market under the symbol "VRNS" since February 28, 2014, the date of our initial public offering.

Dividend Policy

We have never declared or paid cash dividends on our common stock. We currently intend to retain any future earnings for use in the operation of our business and do not intend to declare or pay any cash dividends in the foreseeable future. Any further determination to pay dividends on our common stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors considers relevant.

Stockholders

As of February 1, 2019, there were seven stockholders of record of our common stock, including The Depository Trust Company, which holds shares of our common stock on behalf of an indeterminate number of beneficial owners.

STOCK PERFORMANCE GRAPH

The following shall not be deemed “filed” for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent we specifically incorporate it by reference into such filing.

This chart compares the cumulative total return on our common stock with that of the NASDAQ Composite Index and the NASDAQ Computer Index. The chart assumes $100 was invested at the close of market on February 28, 2014 in our common stock, the NASDAQ Composite Index and the NASDAQ Computer Index, and assumes the reinvestment of any dividends. The stock price performance on the following graph is not necessarily indicative of future stock price performance.

The closing price of our common stock on December 31, 2018, the last trading day of our 2018 fiscal year, was $52.90 per share.

Company/Index	2/28/2014	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
VRNS	$ 100.00	$ 74.61	$ 42.73	$ 60.91	$ 110.34	$ 120.23
NASDAQ Composite	$ 100.00	$ 109.66	$ 115.94	$ 124.64	$ 159.84	$ 153.63
NASDAQ Computer	$ 100.00	$ 116.57	$ 123.85	$ 139.05	$ 192.95	$ 185.85

Sales of Unregistered Securities

None.

Purchase of Equity Securities by Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data

The following selected consolidated historical financial data are derived from our audited financial statements. The consolidated balance sheet data as of December 31, 2018 and 2017 and the consolidated statement of operations data for the years ended December 31, 2018, 2017 and 2016 are derived from our audited consolidated financial statements and related notes that are included elsewhere in this Annual Report on Form 10-K. The consolidated balance sheet data as of December 31, 2016, 2015 and 2014 and the consolidated statement of operations for the years ended December 31, 2015 and 2014 are derived from our audited consolidated financial statements and related notes which are not included in this Annual Report. The consolidated balance sheet data as of December 31, 2017 and 2016 and the consolidated statement of operations data for the years ended December 31, 2017 and 2016 have been adjusted for ASC 606. The consolidated balance sheet data as of December 31, 2015 and 2014 and the consolidated statement of operations for the years ended December 31, 2015 and 2014 have not been adjusted for ASC 606. The information set forth below should be read in conjunction with our historical financial statements, including the notes thereto, and "Management's Discussion and Analysis of Financial Condition and Results of Operations," included elsewhere in this Annual Report.

	Year Ended December 31,				
	2018	2017 (as adjusted)	2016 (as adjusted)	2015	2014
	(in thousands, except share and per share data)				
Consolidated Statement of Operations Data:					
Revenues:					
Licenses	$147,613	$120,341	$93,243	$71,273	$58,420
Maintenance and services	122,675	95,049	72,620	55,937	42,928
Total revenues	270,288	215,390	165,863	127,210	101,348
Cost of revenues(1)	27,683	20,714	15,737	12,019	9,911
Gross profit	242,605	194,676	150,126	115,191	91,437
Operating costs and expenses:					
Research and development(1)	69,971	47,369	36,660	31,792	28,086
Sales and marketing(1)	168,309	133,925	105,639	86,367	68,787
General and administrative(1)	33,460	26,801	19,822	16,106	11,872
Total operating expenses	271,740	208,095	162,121	134,265	108,745
Operating loss	(29,135)	(13,419)	(11,995)	(19,074)	(17,308)
Financial income (expenses), net	970	2,362	(885)	(1,523)	(1,714)
Loss before income taxes	(28,165)	(11,057)	(12,880)	(20,597)	(19,022)
Income taxes	(413)	(2,787)	(1,313)	(686)	(376)
Net loss	$(28,578)	$(13,844)	$(14,193)	$(21,283)	$(19,398)
Net loss per share of common stock, basic and diluted(2)	$(0.98)	$(0.50)	$(0.54)	$(0.84)	$(0.91)
Weighted average shares used to compute net loss per share attributable to common stockholders, basic and diluted	29,020,645	27,467,440	26,406,312	25,198,546	21,242,313

(1) Includes non-cash stock-based compensation as follows:

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	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
Cost of revenues	$1,757	$1,078	$699	$419	$192
Research and development	9,645	5,209	3,052	1,954	1,198
Sales and marketing	16,081	8,542	6,104	3,041	2,478
General and administrative	7,478	5,006	3,083	2,380	796
Total	$34,961	$19,835	$12,938	$7,794	$4,664

(2) Basic and diluted net loss per share of common stock is computed based on the weighted average number of shares of common stock outstanding during each period. For additional information, see Note 2.s to our consolidated financial statements included elsewhere in this Annual Report.

	As of December 31,				
	2018	2017 (as adjusted)	2016 (as adjusted)	2015	2014
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents, marketable securities and short-term deposits	$158,915	$136,557	$113,808	$106,344	$111,695
Working capital	112,750	109,918	91,734	85,086	99,316
Total assets	284,978	245,638	193,173	165,144	156,847
Deferred revenues, current and long-term	94,216	80,101	59,241	48,771	37,217
Total stockholders' equity	125,370	114,642	95,955	83,587	95,026

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 should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that reflect our plans, estimates and beliefs, and involve risks and uncertainties. Our actual results and the timing of certain events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those discussed in the section titled "Risk Factors" included under Part I, Item 1A and elsewhere in this Annual Report. See "Special Note Regarding Forward-Looking Statements" in this Annual Report.

Overview

Varonis is a pioneer in data security and analytics, fighting a different battle than conventional cybersecurity companies. We are pioneers because over a decade ago, we recognized that enterprise capacity to create and share data far exceeded its capacity to protect it. We believed the vast movement of information from analog to digital mediums combined with increasing information dependence would change both the global economy and the risk profiles of corporations and government. Since then our focus has been on using innovation to address the cyber-implications of this movement, creating software that provides new ways to track and protect data wherever it is stored.

Our software allows enterprises to protect data stored on premises and in the cloud: sensitive files and emails; confidential customer, patient and employee data; financial records; strategic and product plans; and other intellectual property. Recognizing the complexities of securing data, we have built a single integrated platform for security and analytics to simplify and streamline security and data management.

The Varonis Data Security Platform, built on patented technology, allows enterprises to protect data against insider threats and cyberattacks. Our products enable enterprises to analyze data, account activity and user behavior to detect attacks. Our Data Security Platform prevents or limits unauthorized use of sensitive information, prevents potential cyberattacks and limits others by locking down sensitive and stale data. Our products efficiently sustain a secure state with automation and addresses additional important use cases including data protection, governance, compliance, classification and threat detection and response. Our Data Security Platform is driven by a proprietary technology, our Metadata Framework, that extracts critical metadata, or data about data, from an enterprise's IT infrastructure. Our Data Security Platform uses this contextual information to map functional relationships among employees, data objects, content and usage.

We started operations in 2005 with a vision to make enterprise data more accessible, manageable, secure and actionable. We began offering our flagship product, DatAdvantage, which provides centralized visibility for enterprise data, in 2006. Since then we have continued to invest in innovation and have consistently introduced new products to our customers. In 2006, we introduced DataPrivilege as our self-service web portal for business users. In 2008, we enhanced our DatAdvantage offering with DatAdvantage for UNIX/Linux. In 2009, we introduced the IDU Classification Framework (later renamed the Data Classification Engine) for sensitive data classification and DatAdvantage for SharePoint. We further enhanced our DatAdvantage offering by releasing DatAdvantage for Exchange in 2010, enabling our customers to exercise control over the information transferred through corporate e-mails. In 2011, we introduced DatAdvantage for Directory Services for increased visibility into Active Directory.

In 2012, we released the Data Transport Engine for intelligent data migration and archiving and DatAnywhere for secure hybrid cloud collaboration. In 2013, we introduced DatAlert to monitor and alert on sensitive data and file activity. In 2014, we introduced DatAnswers, a secure enterprise search solution for enterprise data that delivers highly relevant and secure search results to enterprise employees, greatly improving their productivity. In 2015, we enhanced our DatAdvantage, DataPrivilege and Data Classification Engine offerings; with DatAdvantage support for the following Microsoft Office 365 data stores: Exchange Online, SharePoint Online, OneDrive and Active Directory hosted in Azure; with DataPrivilege for SharePoint; and with Data Classification Engine for UNIX, SharePoint Online and OneDrive. In 2016, we enhanced our DatAdvantage offerings with additional Office 365 support; DatAnswers support for SharePoint Online and OneDrive; and introduced a new web UI for DatAlert for comprehensive security management and threat detection. In that year we also added additional user behavior analytics driven threat models to DatAlert to significantly enhance our detection of insider threats, including potential disgruntled employees, rogue administrators, hijacked accounts and malware, such as ransomware. We also established a behavioral research laboratory where a dedicated team of security experts and data scientists from Varonis continually research the latest threats and emerging security vulnerabilities and introduce new behavior-based threat models to DatAlert.

In 2017, we introduced the Automation Engine to allow customers to automatically repair and maintain file systems so that organizations are less vulnerable to attacks and security breaches, more compliant and consistently meeting a least privilege model. We enhanced DatAlert with DatAlert Analytics Rewind to allow customers to analyze past user and data activity to identify security breaches that may have occurred in the past and pre-emptively tune out false positives. We updated our web UI for DatAlert and added new threat models to detect suspicious mailbox, Exchange and Exchange Online behaviors, password resets, unusual activity from personal devices and more. We introduced a new security dashboard in DatAlert, along with enhanced behavioral analytics, geolocation and more to make it easier than ever to perform security investigations and forensics. In 2017, we also released GDPR Patterns, part of the Data Classification Engine family, to help enterprises identify data that falls under the GDPR and expanded our offerings that can help enterprises meet compliance and regulation requirements.

In 2018, we introduced Varonis Edge to extend our proactive security approach, enabling customers to spot signs of attack at the perimeter by analyzing telemetry from DNS, VPN and Web Proxies. We introduced Data Classification Labels, part of the Data Classification Engine family, to integrate with Microsoft Information Protection (MIP) and enable customers to better classify, track and secure files across enterprise data stores. We enhanced DatAnswers to address additional compliance requirements from new data privacy laws and standards. We added classification categories to the Data Classification Engine, to better identify and analyze regulated data like GDPR, PII, PCI and PHI. We updated the DataPrivilege UI for improved usability and added classification categories making it easier to see who can access regulated data. We updated our web UI and introduced new features to DatAlert, including new threat models to combat cyberattacks, support for more data stores and optimizations to make DatAlert faster and more intuitive for security investigations.

At the core of our technology is our ability to intelligently extract and analyze metadata from an enterprise's vast, distributed data stores. The broad applicability of our technology has resulted in our customers deploying our platform for numerous use cases for security, IT, operations and business personnel. We currently have six product families, and, as of December 31, 2018, approximately 73% of our customers had purchased products in two or more families, one of which was DatAdvantage for all of these customers. As of December 31, 2018, approximately 40% of our customers had purchased products in three or more families. We believe our existing customer base serves as a strong source of incremental revenues given our broad platform of products, their growing volumes and complexity of enterprise data and associated security concerns. Our maintenance renewal rate for each of the years ended December 31, 2018, 2017 and 2016 was over 90%. Our key strategies to maintain our renewal rate include focusing on the quality and reliability of our customer service and support to ensure our customers receive value from our products, providing consistent software upgrades and having sufficient dedicated renewal sales personnel.

We sell substantially all of our products and services to channel partners, including distributors and resellers, which sell to end-user customers, which we refer to in this report as our customers. We believe that our sales model, which combines the leverage of a channel sales model with our highly trained and professional sales force, has and will continue to play a major role in our ability to grow and to successfully deliver our unique value proposition for enterprise data. While our products serve customers of all sizes, in all industries and all geographies, the marketing focus and majority of our sales focus is on targeting organizations with 1,000 users or more who can make larger purchases with us over time and have a greater potential lifetime value. As of December 31, 2018, we had approximately 6,600 customers, spanning leading firms in the financial services, public, healthcare, industrial, insurance, energy and utilities, consumer and retail, media and entertainment, technology and education sectors. We believe our customer count is a key indicator of our market penetration and the value that our products bring to our customer base. We also believe our existing customers represent significant future revenue opportunities for us. We will continue our focus on targeting organizations with 1,000 users or more who can make larger purchases with us over time. The average spending per customer for each of the years ended December 31, 2018, 2017 and 2016 was approximately $91,000, $83,000 and $65,000, respectively.

We believe there is a significant long-term growth opportunity in both domestic and foreign markets, which could include any organization that uses file shares, intranets and email for collaboration, regardless of region. For the year ended December 31, 2018, approximately 62% of our revenues were derived from North America, while EMEA accounted for approximately 35% of our revenues and Rest of World (“ROW”) accounted for approximately 3% of our revenues. Growth in North America was 18% and 20%, respectively, for the three months and year ended December 31, 2018 as compared to the comparable periods in the prior year. In EMEA, growth for the three months and year ended December 31, 2018 was 22% and 36%, respectively, as compared to the comparable periods in the prior year. We expect both continued sales growth in North America and international expansion to be key components of our growth strategy, and we will continue to market our products and services in international markets.

We plan to continue to expand our international operations as part of our growth strategy. The expansion of our international operations depends in particular on our ability to hire, integrate and retain local sales and marketing personnel in these international markets, acquire new channel partners and implement an effective marketing strategy. Given the nominal amount of our ROW revenues, our ROW revenue growth rates have fluctuated in the past and may fluctuate in the future based on the timing of deal closures. In addition, the further expansion of our international operations will increase our sales and marketing and general and administrative expenses and will subject us to a variety of risks and challenges, including those related to economic and political conditions in each region, compliance with foreign laws and regulations, and compliance with domestic laws and regulations applicable to our international operations.

We derive revenues from license sales of our products, services, including initial maintenance contracts and professional services, and renewals. License revenues consist of the revenues recognized from sales of licenses to new customers and additional licenses to existing customers and include perpetual and subscription licensing arrangements. While historically fees from subscription licenses comprised an insignificant amount of our revenues, we expect that over the next several years revenues from subscription licenses will become a more significant portion of our total revenues as we transition to a more subscription-based business model. As a result, we expect license revenues to comprise a larger proportion of our total revenues in the future, resulting in revenues that are more recurring and predictable.

Substantially all of our license sales are derived from a platform of products, consisting of DatAdvantage, DatAlert, Data Classification Engine, DataPrivilege and Data Transport Engine. As of December 31, 2018, 2017 and 2016, 100.0%, 99.6% and 99.6% of our customers, respectively, had purchased DatAdvantage; 50.4%, 47.3% and 40.6% of our customers, respectively, had purchased DatAlert; 49.3%, 43.8% and 37.7% of our customers, respectively, had purchased Data Classification Engine; 15.4%, 16.0% and 17.2% of our customers, respectively, had purchased DataPrivilege; and 7.7%, 6.7% and 5.9% of our customers, respectively, had purchased Data Transport Engine. As of December 31, 2018, 2017 and 2016, 27.0%, 30.2% and 34.5% of our customers, respectively, made standalone purchases of DatAdvantage. No other product families outside of DatAdvantage can be sold on a standalone basis. Licenses sales accounted for 54.6%, 55.9% and 56.2% of our total revenues for the years ended December 31, 2018, 2017 and 2016, respectively.

We have achieved significant growth and scale in recent periods utilizing our business model. For the years ended December 31, 2018, 2017 and 2016, our revenues were $270.3 million, $215.4 million, and $165.9 million, respectively, representing year-over-year growth of 25% and 30%. For the years ended December 31, 2018, 2017 and 2016, we had operating losses of $29.1 million, $13.4 million and $12.0 million and net losses of $28.6 million, $13.8 million and $14.2 million, respectively.

Components of Operating Results

Revenues

Our revenues consist of licenses and maintenance and services revenues.

License Revenues. License revenues reflect the revenues recognized from sales of software licenses to new customers and sales of additional licenses to existing customers who can purchase additional users for existing licenses or purchase new licenses. Substantially all of our license revenues consist of revenues from perpetual licenses, under which we generally recognize the license fee portion of the arrangement upon delivery as the benefit of the asset has transferred. Customers may also purchase subscription license agreements which are sold on premises and provide customers with the same functionality and differ in the duration over which the customer benefits from the software. We expect revenues from subscription licenses to become a larger percentage of our total license revenues. Due to the shifts in the mix of perpetual and subscription licenses, we could produce significant variation in the revenues we recognize in a given period. We are focused on acquiring new customers and increasing revenues from our existing customers.

Maintenance and Services Revenues. Maintenance and services revenues consist of revenues from maintenance agreements and, to a lesser extent, professional services. Typically, when purchasing a perpetual license, a customer also purchases a one year maintenance contract for which we charge a percentage of the license fee. Customers may renew, and generally have renewed, their maintenance agreements for a fee that is based upon a percentage of the initial license fee paid. Customers with maintenance agreements are entitled to receive support and unspecified upgrades and enhancements when and if they become available during the maintenance period. We have experienced growth in maintenance revenues primarily due to increased license sales to new and existing customers and high annual retention of existing customers. We recognize the revenues associated with maintenance ratably, on a straight-line basis, over the associated maintenance period. We measure the perpetual license maintenance renewal rate for our customers over a 12-month period, based on a dollar renewal rate for contracts expiring during that time period. Our maintenance renewal rate for each of the years ended December 31, 2018, 2017 and 2016 has been over 90%. We also offer professional services focused on training our customers in the use of our products, providing advice on deployment planning, network design, product configuration and implementation, automating and customizing reports and tuning policies and configuration. We recognize the revenues associated with these professional services, which are generally provided on a time and materials basis, as we deliver the services, provide the training or when the service term has expired.

The following table sets forth the percentage of our revenues that have been derived from licenses and maintenance and services revenues for the periods presented.

	Year Ended December 31,					
	2018		2017		2016	
	(as a percentage of total revenues)					
Revenues:						
Licenses	54.6	%	55.9	%	56.2	%
Maintenance and services	45.4	%	44.1	%	43.8	%
Total revenues	100.0	%	100.0	%	100.0	%

Our products are used by a wide range of enterprises, including Fortune 500 corporations and small and medium-sized businesses. As of December 31, 2018, we had approximately 6,600 customers across a broad array of company sizes and industries located in 80 countries.

Cost of Revenues, Gross Profit and Gross Margin

Our cost of revenues consists of cost of maintenance and services revenues. Cost of maintenance and services revenues consist primarily of salaries (including payroll tax expense related to stock-based compensation), employee benefits (including commissions and bonuses) and stock-based compensation for our maintenance and services employees; travel expenses; and allocated overhead costs for facilities, IT and depreciation of equipment. We recognize expenses related to maintenance and services as they are incurred. We expect that our cost of maintenance and services revenues will increase in absolute dollars as we increase our headcount to support revenue growth.

Gross profit is total revenues less total cost of revenues. Gross margin is gross profit expressed as a percentage of total revenues. Our gross margin has historically fluctuated slightly from period to period as a result of changes in the mix of license and maintenance and services revenues. Due to the seasonality of our business, the first quarter typically results in the lowest gross margin as our first quarter revenues have historically been the lowest for the year and the majority of our expenses are relatively fixed quarter over quarter. Conversely, the fourth quarter typically results in the highest gross margin as our fourth quarter revenues have historically been the highest for the year.

Operating Costs and Expenses

Our operating costs and expenses are classified into three categories: research and development, sales and marketing and general and administrative. For each category, the largest component is personnel costs, which consists of salaries (including payroll tax expense related to stock-based compensation), employee benefits (including commissions and bonuses) and stock-based compensation. Operating costs and expenses also include allocated overhead costs for depreciation of equipment. Allocated costs for facilities primarily consist of rent and office maintenance. Operating costs and expenses are generally recognized as incurred. We expect personnel costs to continue to increase in absolute dollars as we hire new employees to continue to grow our business.

Research and Development. Research and development expenses primarily consist of personnel costs attributable to our research and development personnel, as well as allocated overhead costs. We expense research and development costs as incurred. We expect that our research and development expenses will continue to increase in absolute dollars as we increase our research and development headcount to further strengthen our technology platform and invest in the development of both existing and new products.

Sales and Marketing. Sales and marketing expenses are the largest component of our operating costs and expenses and consist primarily of personnel costs, as well as marketing and business development costs, travel expenses, training and education and allocated overhead costs. We expect that sales and marketing expenses will continue to increase in absolute dollars, as we plan to expand our sales and marketing efforts, both domestically and internationally. We expect sales and marketing expenses to be our largest category of operating costs and expenses as we continue to expand our business worldwide.

General and Administrative. General and administrative expenses mostly consist of personnel and facility-related costs for our executive, finance, legal, human resources and administrative personnel. Other expenses are comprised of legal, accounting and other consultant fees and other corporate expenses and allocated overhead. We expect that general and administrative expense will increase in absolute dollars as we grow and expand our operations, including higher legal, corporate insurance and accounting expenses, and the additional costs of achieving and maintaining compliance with the Sarbanes-Oxley Act and related regulations.

Financial Income (Expenses), Net

Financial income (expenses), net consist primarily of foreign exchange gains or losses and interest income. Foreign exchange gains or losses relate to our business activities in foreign countries with different operational reporting currencies. As a result of our business activities in foreign countries, we expect that foreign exchange gains or losses will continue to occur due to fluctuations in exchange rates in the countries where we do business. Brexit, as well as other member countries public discussions about the possibility of withdrawing from the EU, could also contribute to instability and volatility in the global financial and foreign exchange markets, including volatility in the value of Pounds Sterling, Euros and other currencies. Interest income represents interest received on our cash, cash equivalents, marketable securities and short-term deposits.

Income Taxes

We operate in several tax jurisdictions and are subject to taxes in each country or jurisdiction in which we conduct business. Earnings from our non-U.S. activities are subject to local country income tax and may be subject to U.S. income tax.

Because of our history of U.S. net operating losses, we have established a full valuation allowance against potential future benefits for deferred tax assets including loss carryforwards; however, we have recorded net deferred tax assets of $0.1 million as of December 31, 2018 for certain foreign jurisdictions. Our income tax provision could be significantly impacted by estimates surrounding our uncertain tax positions and changes to our valuation allowance in future periods. We reevaluate the judgments surrounding our estimates and make adjustments as appropriate each reporting period.

Our Israeli subsidiary currently qualifies as a “Beneficiary Enterprise” which, upon fulfillment of certain conditions, allows it to qualify for a reduced tax rate based on the beneficiary program guidelines.

In addition, we are subject to the continuous examinations of our income tax returns by the tax authorities in each jurisdiction in which we operate. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes.

On December 22, 2017, the TCJA was signed into law making significant changes to the Code. These changes include, but are not limited to:

- A corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017;
- A one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017 (the “Deemed Repatriation Transition Tax”);
- Taxation of global intangible low-taxed income (“GILTI”) earned by foreign subsidiaries beginning after December 31, 2017. The GILTI tax imposes a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations; and
- Taxation of base erosion and anti-abuse (“BEAT”) payments made by U.S. corporations to foreign related parties. The BEAT tax applies only to corporations with average gross domestic sales of $500 million over three successive years.

We have completed the analysis of the accounting treatment related to the tax effects of the TCJA in our year end income tax provision in accordance with our understanding of the TCJA and guidance available as of the date of this filing. As a result:

- As of December 31, 2018, we have concluded our accounting related to the Deemed Repatriation Transition Tax and did not make any related measurement-period adjustments.
- Due to the aggregated net tested loss of our foreign subsidiaries, we should not be subject to GILTI tax for 2018.
- For 2018, we should not be subject to any tax on account of BEAT.
- Due to the NOLs generated during 2018, we will not benefit from the reduced tax rate of 13.125% on our foreign derived intangible income.

We recognize that the Internal Revenue Service (the "IRS"), the Financial Accounting Standards Board and the SEC are continuing to publish and finalize ongoing guidance with respect to the TCJA which may modify accounting interpretations of the TCJA. As such, we will account for these impacts in the period in which any changes are enacted.

Results of Operations

The following tables are a summary of our consolidated statements of operations in dollars and as a percentage of our total revenues.

	Year Ended December 31,		
	2018	2017 (as adjusted)	2016 (as adjusted)
	(in thousands)		
Statement of Operations Data:			
Revenues:			
Licenses	$147,613	$120,341	$93,243
Maintenance and services	122,675	95,049	72,620
Total revenues	270,288	215,390	165,863
Cost of revenues	27,683	20,714	15,737
Gross profit	242,605	194,676	150,126
Operating costs and expenses:			
Research and development	69,971	47,369	36,660
Sales and marketing	168,309	133,925	105,639
General and administrative	33,460	26,801	19,822
Total operating expenses	271,740	208,095	162,121
Operating loss	(29,135)	(13,419)	(11,995)
Financial income (expenses), net	970	2,362	(885)
Loss before income taxes	(28,165)	(11,057)	(12,880)
Income taxes	(413)	(2,787)	(1,313)
Net loss	$(28,578)	$(13,844)	$(14,193)

	Year Ended December 31,		
	2018	2017 (as adjusted)	2016 (as adjusted)
	(as a percentage of total revenues)		
Statement of Operations Data:			
Revenues:			
Licenses	54.6 %	55.9 %	56.2 %
Maintenance and services	45.4	44.1	43.8
Total revenues	100.0	100.0	100.0
Cost of revenues	10.2	9.6	9.5
Gross profit	89.8	90.4	90.5
Operating costs and expenses:			
Research and development	25.9	22.0	22.1
Sales and marketing	62.3	62.2	63.7
General and administrative	12.4	12.4	11.9
Total operating expenses	100.6	96.6	97.7
Operating loss	(10.8)	(6.2)	(7.2)
Financial income (expenses), net	0.4	1.1	(0.6)
Loss before income taxes	(10.4)	(5.1)	(7.8)
Income taxes	(0.2)	(1.3)	(0.8)
Net loss	(10.6)%	(6.4)%	(8.6)%

Comparison of Years Ended December 31, 2018 and 2017

Revenues

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	Year Ended December 31,			
	2018	2017	% Change	
	(in thousands)			
Revenues:				
Licenses	$147,613	$120,341	22.7	%
Maintenance and services	122,675	95,049	29.1	%
Total revenues	$270,288	$215,390	25.5	%

	Year Ended December 31,			
	2018		2017	
	(as a percentage of total revenues)			
Revenues:				
Licenses	54.6	%	55.9	%
Maintenance and services	45.4	%	44.1	%
Total revenues	100.0	%	100.0	%

Total revenue growth was achieved due to increased demand for our services and products from existing and new customers, mostly in the domestic market, as well as in international markets. The increase in license revenues was driven by sales to existing customers and larger aggregate sales to 873 new customers in 2018 compared to the aggregate sales to 961 new customers in 2017. As of December 31, 2018 and 2017, we had approximately 6,600 and approximately 5,850 customers, respectively. Almost all of our license revenues was attributable to sales of perpetual licenses. The increase in maintenance and services revenues was primarily due to an increase in the sale of maintenance agreements resulting from the growth of our installed customer base. In each of 2018 and 2017, our maintenance renewal rate was over 90%. Of the license and first year maintenance and services revenues recognized in the year ended December 31, 2018, 50% was attributable to revenues from new customers, and 50% was attributable to revenues from existing customers. Of the license and first year maintenance and services revenues recognized in the year ended December 31, 2017, 54% was attributable to revenues from new customers, and 46% was attributable to revenues from existing customers. As of December 31, 2018 and 2017, 73% and 69% of our customers, respectively, had purchased two or more product families. As of December 31, 2018 and 2017, 40% and 36% of our customers, respectively, had purchased three or more product families.

Cost of Revenues and Gross Margin

	Year Ended December 31,			
	2018	2017	% Change	
	(in thousands)			
Cost of revenues	$27,683	$20,714	33.6	%

	Year Ended December 31,			
	2018		2017	
	(as a percentage of total revenues)			
Total gross margin	89.8	%	90.4	%

The increase in cost of revenues was primarily related to an increase of $6.2 million in salaries and benefits and stock based compensation expense due to increased headcount for support personnel to support our greater revenues and high renewal rate and a $0.6 million increase in facilities and allocated overhead costs.

Operating Costs and Expenses

	Year Ended December 31,		
	2018	2017	% Change
	(in thousands)		
Operating costs and expenses:			
Research and development	$69,971	$47,369	47.7 %
Sales and marketing	168,309	133,925	25.7 %
General and administrative	33,460	26,801	24.8 %
Total operating expenses	$271,740	$208,095	30.6 %

	Year Ended December 31,	
	2018	2017
	(as a percentage of total revenues)	
Operating costs and expenses:		
Research and development	25.9 %	22.0 %
Sales and marketing	62.3 %	62.2 %
General and administrative	12.4 %	12.4 %
Total operating expenses	100.6 %	96.6 %

The increase in research and development expenses was primarily related to an increase of $18.4 million in salaries and benefits and stock based compensation expense resulting from increased headcount as part of our focus on enhancing and developing our existing and new products. The remainder of the increase was attributable to a $4.0 million increase in facilities and allocated overhead costs.

The increase in sales and marketing expenses was primarily related to a $26.1 million increase in salaries and benefits and stock based compensation expense due to increased headcount to expand our sales force and commissions on increased customer orders. The remainder of the increase was attributable to a $5.6 million increase in facilities and allocated overhead costs and a $1.0 million increase in marketing related expenses.

The increase in general and administrative expenses was primarily related to an increase of $5.3 million in salaries and benefits and stock based compensation expense due to increased headcount to support the overall growth of our business and an increase of $1.4 million in professional fees.

Financial Income, Net

	Year Ended December 31,		
	2018	2017	% Change
	(in thousands)		
Financial income, net	$970	$2,362	(58.9)%

Financial income, net for the year ended December 31, 2018 was primarily comprised of interest income partially offset by foreign currency losses compared to financial income, net for the year ended December 31, 2017 that was primarily comprised of foreign currency gains.

Income Taxes

Year Ended

	December 31,		
	2018	2017	% Change
	(in thousands)		
Income taxes	$(413)	$(2,787)	(85.2)%

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Income taxes for the years ended December 31, 2018 and 2017 were comprised primarily of foreign income taxes and state taxes.

Comparison of Years Ended December 31, 2017 and 2016

Revenues

	Year Ended December 31,			
	2017	2016	% Change	
	(in thousands)			
Revenues:				
Licenses	$120,341	$93,243	29.1	%
Maintenance and services	95,049	72,620	30.9	%
Total revenues	$215,390	$165,863	29.9	%

	Year Ended December 31,			
	2017		2016	
	(as a percentage of total revenues)			
Revenues:				
Licenses	55.9	%	56.2	%
Maintenance and services	44.1	%	43.8	%
Total revenues	100.0	%	100.0	%

Total revenue growth was achieved due to increased demand for our products and services from existing and new customers, mostly in the domestic market, as well as in international markets. The increase in license revenues was driven by sales to existing customers, larger aggregate sales to 961 new customers in 2017 compared to the aggregate sales to 1,024 new customers in 2016 and sales of new products. As of December 31, 2017 and 2016, we had approximately 5,850 and approximately 5,000 customers, respectively. Almost all of our license revenues was attributable to sales of perpetual licenses. The increase in maintenance and services revenues was primarily due to an increase in the sale of maintenance agreements resulting from the growth of our installed customer base. In each of 2017 and 2016, our maintenance renewal rate was over 90%. Of the license and first year maintenance and services revenues recognized in the year ended December 31, 2017, 54% was attributable to revenues from new customers, and 46% was attributable to revenues from existing customers. Of the license and first year maintenance and services revenues recognized in the year ended December 31, 2016, 58% was attributable to revenues from new customers, and 42% was attributable to revenues from existing customers. As of December 31, 2017 and 2016, 69% and 65% of our customers, respectively, had purchased two or more product families. As of December 31, 2017 and 2016, 36% and 29% of our customers, respectively, had purchased three or more product families.

Cost of Revenues and Gross Margin

	Year Ended December 31,			
	2017	2016	% Change	
	(in thousands)			
Cost of revenues	$20,714	$15,737	31.6	%

	Year Ended December 31,			
	2017		2016	
	(as a percentage of total revenues)			
Total gross margin	90.4	%	90.5	%

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The increase in cost of revenues was primarily related to an increase of $3.6 million in salaries and benefits and stock based compensation expense due to increased headcount for support personnel to support our greater revenues and high renewal rate and a $0.9 million increase in facilities and allocated overhead costs.

Operating Costs and Expenses

	Year Ended December 31,			
	2017	2016	% Change	
	(in thousands)			
Operating costs and expenses:				
Research and development	$47,369	$36,660	29.2	%
Sales and marketing	133,925	105,639	26.8	%
General and administrative	26,801	19,822	35.2	%
Total operating expenses	$208,095	$162,121	28.4	%

	Year Ended December 31,			
	2017		2016	
	(as a percentage of total revenues)			
Operating costs and expenses:				
Research and development	22.0	%	22.1	%
Sales and marketing	62.2	%	63.7	%
General and administrative	12.4	%	11.9	%
Total operating expenses	96.6	%	97.7	%

The increase in research and development expenses was primarily related to an increase of $8.7 million in salaries and stock based compensation expense resulting from increased headcount as part of our focus on enhancing and developing our existing and new products. The remainder of the increase was attributable to a $1.6 million increase in facilities and allocated overhead costs.

The increase in sales and marketing expenses was primarily related to a $23.6 million increase in salaries and benefits and stock based compensation expense due to increased headcount to expand our sales force, and commissions on increased customer orders. The remainder of the increase was attributable to a $3.3 million increase in facilities and allocated overhead costs and a $0.6 million increase in marketing related expenses.

The increase in general and administrative expenses was primarily related to an increase of $5.0 million in salaries and benefits and stock based compensation expense due to increased headcount to support the overall growth of our business and an increase of $1.6 million of other expenses predominately relating to IT.

Financial Income (Expenses), Net

	Year Ended December 31,			
	2017	2016	% Change	
	(in thousands)			
Financial income (expenses), net	$2,362	$(885)	366.9	%

Financial income (expense), net for the year ended December 31, 2017 was primarily comprised of foreign currency gains compared to foreign currency losses for the year ended December 31, 2016.

Income Taxes

	Year Ended December 31,		
	2017	2016	% Change
	(in thousands)		
Income taxes	$(2,787)	$(1,313)	(112.3)%

Income taxes for the years ended December 31, 2017 and 2016 were comprised primarily of foreign income taxes and state taxes.

Quarterly Results of Operations

The following table sets forth our unaudited quarterly consolidated statement of operations data for each of the eight quarters ended December 31, 2018. The data presented below has been prepared on the same basis as the audited consolidated financial statements included elsewhere in this Annual Report and, in the opinion of management, reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of this data. This information should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Annual Report. The results of historical periods are not necessarily indicative of the results of operations for a full year or any future period.

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	June 30, 2018	March 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	March 31, 2017
	(in thousands)							
Revenues:								
Licenses	$53,275	$35,804	$33,460	$25,074	$45,939	$29,000	$27,310	$18,092
Maintenance and services	34,243	31,248	28,730	28,454	27,062	24,365	22,121	21,501
Total revenues	87,518	67,052	62,190	53,528	73,001	53,365	49,431	39,593
Cost of revenues (1)	7,749	7,052	6,440	6,442	5,717	5,423	4,881	4,693
Gross profit	79,769	60,000	55,750	47,086	67,284	47,942	44,550	34,900
Operating costs and expenses:								
Research and development (1)	19,445	17,267	17,717	15,542	13,559	11,903	11,498	10,409
Sales and marketing (1)	46,196	40,792	41,349	39,972	37,973	32,458	32,580	30,914
General and administrative (1)	9,628	8,774	7,989	7,069	8,005	6,708	6,579	5,509
Total operating expenses	75,269	66,833	67,055	62,583	59,537	51,069	50,657	46,832
Operating income (loss)	4,500	(6,833)	(11,305)	(15,497)	7,747	(3,127)	(6,107)	(11,932)
Financial income (expenses), net	704	99	(811)	978	321	622	950	469
Income (loss) before income taxes	5,204	(6,734)	(12,116)	(14,519)	8,068	(2,505)	(5,157)	(11,463)
Benefit (provision) for income taxes	1,264	(583)	(567)	(527)	(1,248)	(759)	(580)	(200)
Net income (loss)	$6,468	$(7,317)	$(12,683)	$(15,046)	$6,820	$(3,264)	$(5,737)	$(11,663)

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	June 30, 2018	March 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	March 31, 2017
	(as a percentage of total revenues)							
Revenues:								
Licenses	60.9 %	53.4 %	53.8 %	46.8 %	62.9 %	54.3 %	55.2 %	45.7 %
Maintenance and services	39.1	46.6	46.2	53.2	37.1	45.7	44.8	54.3
Total revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cost of revenues	8.9	10.5	10.4	12.0	7.8	10.2	9.9	11.9
Gross profit	91.1	89.5	89.6	88.0	92.2	89.8	90.1	88.1
Operating costs and expenses:								
Research and development	22.2	25.8	28.5	29.1	18.6	22.3	23.3	26.3
Sales and marketing	52.8	60.8	66.5	74.7	52.0	60.8	65.9	78.0
General and administrative	11.0	13.1	12.8	13.2	11.0	12.6	13.3	13.9
Total operating expenses	86.0	99.7	107.8	117.0	81.6	95.7	102.5	118.2
Operating income (loss)	5.1	(10.2)	(18.2)	(29.0)	10.6	(5.9)	(12.4)	(30.1)
Financial income (expenses), net	0.8	0.2	(1.3)	1.9	0.5	1.2	2.0	1.1
Income (loss) before income taxes	5.9	(10.0)	(19.5)	(27.1)	11.1	(4.7)	(10.4)	(29.0)
Benefit (provision) for income taxes	1.5	(0.9)	(0.9)	(1.0)	(1.8)	(1.4)	(1.2)	(0.5)
Net income (loss)	7.4 %	(10.9)%	(20.4)%	(28.1)%	9.3 %	(6.1)%	(11.6)%	(29.5)%

(1) Includes non-cash stock-based compensation expense and payroll tax expense related to stock-based compensation as follows:

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	June 30, 2018	March 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	March 31, 2017
	(in thousands)							
Cost of revenues	$457	$ 470	$ 468	$ 362	$ 295	$ 283	$ 273	$ 227
Research and development	2,465	2,097	2,978	2,105	1,404	1,374	1,301	1,130
Sales and marketing	5,732	3,600	3,648	3,101	2,265	1,856	2,362	2,059
General and administrative	2,133	2,232	1,754	1,359	1,426	1,269	1,323	988
Total non-cash stock-based compensation expense related to employees and consultants	$ 10,787	$ 8,399	$ 8,848	$ 6,927	$ 5,390	$ 4,782	$ 5,259	$ 4,404

	Three Months Ended							
	Dec. 31, 2018	Sept. 30, 2018	June 30, 2018	March 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	March 31, 2017
	(in thousands)							
Cost of revenues	$ 7	$ 11	$ 78	$ 267	$ 21	$ 25	$ 12	$ 33
Research and development	17	16	111	36	12	27	13	15
Sales and marketing	214	394	1,057	1,470	243	213	166	319
General and administrative	6	9	187	95	8	8	8	35
Total payroll tax expense related to stock-based compensation	$ 244	$ 430	$ 1,433	$ 1,868	$ 284	$ 273	$ 199	$ 402

Seasonality and Quarterly Trends

Our quarterly results reflect seasonality in the sale of our products and services. Historically, we have experienced a pattern of increased license sales in the fourth quarter. This trend makes it difficult to achieve sequential revenue growth in the first quarter of the following year. Because of customer budget and purchasing trends, demand for our products and services is typically slowest in the first quarter resulting in a decrease in quarterly revenues from the fourth quarter to the first quarter of the subsequent fiscal year. We expect these seasonal patterns to continue in the future. Our gross margins and operating loss have been affected by these historical trends because the majority of our expenses are relatively fixed quarter over quarter. The timing of revenues in relation to our expenses, much of which does not vary directly with revenues, has an impact on the cost of revenues, research and development expenses, sales and marketing expenses and general and administrative expenses as a percentage of revenues in each calendar quarter during the year. The majority of our expenses is personnel-related costs, which consists of salaries (including payroll tax expense related to stock-based compensation), employee benefits (including commissions and bonuses) and stock-based compensation. As a result, we have not experienced significant seasonal fluctuations in the timing of expenses from period to period. Although these seasonal factors are common in the technology industry, historical patterns should not be considered a reliable indicator of our future sales activity or performance.

Our revenues increased in each quarter as compared with the same quarter in the prior year due to an increase in sales of our licenses to new customers as well as incremental sales to existing customers and due to increases in our maintenance and services revenues primarily resulting from increases in our installed base of customers.

Cost of revenues has increased in each quarter as compared with the same quarter in the prior year primarily due to the increased cost of providing maintenance and services to our expanding customer base.

Total operating costs and expenses increased in each quarter as compared with the same quarter in the prior year, primarily due to the addition of personnel in connection with the expansion of our business. Furthermore, our commission expense has historically been the greatest towards the end of the year due to increased commissions earned on customer orders entered at year end.

Liquidity and Capital Resources

The following table shows our cash flows from operating activities, investing activities and financing activities for the stated periods:

	Year Ended December 31,		
	2018	2017	2016
	(in thousands)		
Net cash provided by operating activities	$23,545	$16,351	$7,347
Net cash used in investing activities	(40,188)	(20,001)	(12,324)
Net cash provided by financing activities	8,114	12,083	4,072
Increase (decrease) in cash, cash equivalents and restricted cash	$(8,529)	$8,433	$(905)

On December 31, 2018, our cash and cash equivalents, marketable securities and short-term deposits of $158.9 million were held for working capital purposes and were invested primarily in short-term deposits. We intend to increase our investment in capital expenditures in 2019 to support the growth in our business and operations mainly with leasehold improvements in our North Carolina and Israel offices. We believe that our existing cash and cash equivalents, marketable securities, short-term deposits and cash flow from operations will be sufficient to fund our operations and capital expenditures for at least the next 12 months. Our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the timing and extent of spending to support product development efforts and expansion into new geographic locations, the timing of introductions of new software products and enhancements to existing software products, the continuing market acceptance of our software offerings and our use of cash to pay for acquisitions, if any.

Operating Activities

Net cash provided by operating activities is driven by sales of our products less costs and expenses, primarily payroll and related expenses, and adjusted for certain non-cash items, mainly depreciation and stock-based compensation, and changes in operating assets and liabilities. Changes in operating assets and liabilities are driven mainly by collection of accounts receivable from the sales of our software products and deferred revenues which represents unearned amounts billed to our channel partners, related to these sales.

For 2018, cash inflows from our operating activities were $23.5 million, compared to cash inflows of $16.4 million for the prior year. Our $28.6 million net loss, including non-cash charges of $52.3 million, was driven primarily by increased headcount of our sales force and research and development personnel. Net loss was further offset by changes in our working capital, including a $14.1 million increase in deferred revenues, a $9.9 million increase in accrued expenses and other short term liabilities and a $2.0 million increase in accounts payable due to timing of payments. This was partially offset by a $17.2 million increase in prepaid expenses and other current assets (including deferred commissions), an increase of $7.6 million in accounts receivable and a decrease of $1.0 million in other long term liabilities. This increase in working capital was impacted by the increased sales for the year ended December 31, 2018 and consistent with the seasonal pattern discussed above. Our days' sales outstanding ("DSO") for the three months and year ended December 31, 2018 was 74 and 66 days, respectively.

For 2017, cash inflows from our operating activities were $16.4 million, compared to cash inflows of $7.3 million for the prior year. Our $13.8 million net loss, including non-cash charges of $35.7 million, was driven primarily by increased headcount of our sales force and research and development personnel. Net loss was further offset by changes in our working capital, including an $20.9 million increase in deferred revenues and a $14.5 million increase in accrued expenses and other short term liabilities which were partially offset by a $21.7 million increase in accounts receivable. This increase in working capital was impacted by the increased sales for the year ended December 31, 2017 and consistent with the seasonal pattern discussed above. Other changes in our working capital included an increase of $18.1 million in prepaid expenses and other current assets (including deferred commissions), a decrease of $0.7 million in accounts payable due to timing of payments and a decrease of $0.4 million in other long term liabilities. Our DSO for the three months and year ended December 31, 2017 was 77 and 72 days, respectively.

For 2016, cash inflows from our operating activities were $7.3 million, compared to cash outflows of $2.7 million for the prior year. Our $14.2 million net loss, including non-cash charges of $24.6 million, was driven primarily by increased headcount of our sales force and research and development personnel. Net loss was further offset by changes in our working capital, including a $11.9 million increase in deferred revenues and a $5.3 million increase in accrued expenses and other short term liabilities which were partially offset by a decrease of $12.8 million in prepaid expenses and other current assets (including deferred commissions) and a $6.4 million increase in accounts receivable. This increase in working capital was impacted by the increased sales for the year ended December 31, 2016 and consistent with the seasonal pattern discussed above. Other changes in our working capital included a decrease of $1.3 million in accounts payable due to timing of payments. Our DSO for the three months and year ended December 31, 2016 was 76 and 74 days, respectively.

Investing Activities

Our investing activities consist primarily of capital expenditures to purchase property and equipment, leasehold improvements, sales and purchases of short-term deposits and changes in our restricted cash. In the future, we expect to continue to incur capital expenditures to support our expanding operations.

During 2018, net cash used in investing activities of $40.2 million was attributable to an increase of $30.3 million in short-term deposits and capital expenditures of $9.6 million to support our growth during the period including hardware, software, office equipment and leasehold improvements.

During 2017, net cash used in investing activities of $20.0 million was attributable to an increase of $14.4 million in short-term deposits and capital expenditures of $5.3 million to support our growth during the period including hardware, software, office equipment and leasehold improvements.

During 2016, net cash used in investing activities of $12.3 million was attributable to an increase of $8.4 million in short-term deposits and capital expenditures of $3.8 million to support our growth during the period including hardware, software, office equipment and leasehold improvements.

Financing Activities

In 2018, 2017 and 2016, net cash provided by financing activities of $8.1 million, $12.1 million and $4.1 million, respectively, was attributable to net proceeds from employee stock plans.

Promissory Note

On March 31, 2014, we entered into a promissory note and related security documents with Bank Leumi USA, which we have extended a number of times. We may borrow up to $7.0 million against certain of our accounts receivable outstanding amount, based on several conditions, at an annual interest rate of the Wall Street Journal Prime Rate plus 0.05%, provided that the annual interest rate applicable to advances will not be lower than 4.10%. As of December 31, 2018, that rate amounted to 5.55%. This promissory note enables us, among other things, to engage in foreign currency hedging transactions with Bank Leumi USA to manage our exposure to foreign currency risk without restricted cash requirements. We may borrow under the promissory note until November 15, 2020 at which time the principal sum of each such loan, together with accrued and unpaid interest payable, will become due and payable. As of December 31, 2018, we had no balance outstanding under the promissory note. As part of the transaction, we granted the lender a security interest in our personal property, excluding intellectual property and other intangible assets. The promissory note also contains customary events of default.

Contractual Payment Obligations

Our principal commitments primarily consist of obligations under leases for office space and motor vehicles. Aggregate minimum rental commitments under non-cancelable leases as of December 31, 2018 for the upcoming years were as follows:

	Payments Due by Period						
	2019	2020	2021	2022	2023	Thereafter	Total
					(in thousands)		
Operating lease obligations	$7,174	$9,086	$8,865	$8,876	$8,690	$ 37,507	$80,198

We have obligations related to unrecognized tax benefit liabilities totaling $1.4 million and others related to severance pay, which have been excluded from the table above as we do not believe it is practicable to make reliable estimates of the periods in which payments for these obligations will be made.

Off-Balance Sheet Arrangements

As of December 31, 2018, we did not have any off-balance sheet arrangements.

Critical Accounting Policies and Estimates

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, revenues, 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 accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management’s judgments and estimates. Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of the matters that are inherently uncertain.

Revenue Recognition:

We generate revenues in the form of software license fees and related maintenance and services fees. License fees include perpetual license fees and subscription license fees which provide customers with the same functionality and differ in the duration over which the customer benefits from the software. Maintenance and services primarily consist of fees for maintenance services (including support and unspecified upgrades and enhancements when and if they are available) and to a lesser extent professional services. These services focus on both operationalizing the software and training our customers to fully leverage the use of our products although customers can benefit from the software without our assistance. We sell our products worldwide directly to a network of distributors and VARs, and payment is typically due within 30 to 60 calendar days of the invoice date.

We recognize revenues in accordance with ASC No. 606, “Revenue from Contracts with Customers”. As such, we identify a contract with a customer, identify the performance obligations in the contract, determine the transaction price, allocate the transaction price to each performance obligation in the contract and recognize revenues when (or as) we satisfy a performance obligation.

Software license revenues are recognized at the point of time when the software license has been delivered and the benefit of the asset has transferred.

We recognize revenues from maintenance ratably over the term of the underlying maintenance contract term. The term of the maintenance contract is usually one year. Renewals of maintenance contracts create new performance obligations that are satisfied over the term with the revenues recognized ratably over the period.

Revenues from professional services consists mostly of time and material services. The performance obligations are satisfied, and revenues are recognized, when the services are provided or once the service term has expired.

We enter into contracts that can include combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. The license is distinct upon delivery as the customer can derive the economic benefit of the software without any professional services, updates or technical support. We allocate the transaction price to each performance obligation based on our relative standalone selling price out of the total consideration of the contract. For maintenance, we determine the standalone selling prices based on the price at which we separately sell a renewal contract. For professional services, we determine the standalone selling prices based on the price at which we separately sell those services. For software licenses, we use the residual approach to determine the standalone selling prices due to the lack of history of selling software license on a standalone basis.

Trade and other receivables are primarily comprised of trade receivables that are recorded at the invoice amount, net of an allowance for doubtful accounts.

Deferred revenues represent mostly unrecognized fees billed or collected for maintenance and professional services. Deferred revenues are recognized as (or when) we perform under the contract. The amount of revenues recognized in the period that was included in the opening deferred revenues balance was $73.2 million for the year ended December 31, 2018.

We do not grant a right of return to our customers, except for one of our resellers. During the years ended December 31, 2018, 2017 and 2016, there were no returns from this reseller.

For information regarding disaggregated revenues, please refer to Note 11 to our consolidated financial statements.

Contract Costs:

We pay sales commissions to sales and marketing and certain management personnel based on their attainment of certain predetermined sales goals. Sales commissions earned by our employees are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions paid for initial contracts, which are not commensurate with sales commissions paid for renewal contracts, are capitalized and amortized over an expected period of benefit. Based on our technology, customer contracts and other factors, we have determined the expected period of benefit to be approximately four years. Sales commissions for renewal contracts are capitalized and then amortized on a straight line basis over the related contractual renewal period. Amortization expenses related to these costs are mostly included in sales and marketing expenses in the accompanying consolidated statements of operations.

Accounting for Stock-Based Compensation:

We account for stock-based compensation in accordance with ASC No. 718, “Compensation-Stock Compensation.” ASC No. 718 requires companies to estimate the fair value of equity-based payment awards on the date of grant using an Option-Pricing Model (“OPM”). The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in our consolidated statements of operations.

We recognize compensation expenses for the value of our equity awards granted based on the straight-line method over the requisite service period of each of the awards. Upon adoption of ASU 2016-09, we elected to change our accounting policy to account for forfeitures as they occur.

We applied ASC 718 and ASC 505-50, “Equity-Based Payments to Non-Employees” with respect to options issued to non-employee consultants. Accordingly, we use option valuation models to measure the fair value of the options at the measurement date as defined in ASC 505-50.

We selected the Black-Scholes-Merton option pricing model as the most appropriate fair value method for our stock options awards, whereas the fair value of restricted stock units is based on the market value of the underlying shares at the date of grant.

Recently Adopted Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers”, an updated standard on revenue recognition and issued subsequent amendments to the initial guidance in March 2016, April 2016, May 2016 and December 2016 within ASU 2016-08, 2016-10, 2016-12 and 2016-20, respectively. The new standards provide enhancements to the quality and consistency of how revenue is reported while also improving comparability in the financial statements of companies reporting using IFRS and US GAAP. The core principle of the new standard is for companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration (that is, payment) to which the company expects to be entitled in exchange for those goods or services. The new standard results in enhanced disclosures about revenue, provides guidance for transactions that were not previously addressed comprehensively (for example, service revenue and contract modifications) and improves guidance for multiple-element arrangements. ASU 2014-09 was initially scheduled to be effective for annual and interim reporting periods beginning after December 15, 2016 and may be adopted either on a full retrospective or modified retrospective approach. However, on July 9, 2015, the FASB approved a one year deferral of the effective date of ASU 2014-09. The revised effective date is for annual reporting periods beginning after December 15, 2017 and interim periods thereafter, with an early adoption permitted as of the original effective date. We adopted this standard effective January 1, 2018 using the full retrospective method which requires each prior reporting period presented to be recast in future issuances of our financial statements. In preparation for adoption of the standard, we implemented internal controls and key system functionality to enable the preparation of financial information and have reached conclusions on key accounting assessments related to the standard, including our assessment of the impact.

The most significant impact of the new standard relates to the way we account for subscription agreements and commission expense. Specifically, under the new revenue standard, we recognize subscription license revenues upfront and the associated maintenance revenues over the contract period. Subscription arrangements include maintenance as part of the subscription service and are not priced or reported separately. We have also considered the impact of the guidance in ASC 340-40, “Other Assets and Deferred Costs” under the new standard. Under ASC 340-40, we are required to capitalize and amortize certain incremental costs of obtaining a contract such as the maintenance portion of sales commissions over the life of the maintenance period.

Adoption of the standard resulted in a reduction of revenues of $2.0 million for the year ended December 31, 2017 and recognition of additional revenues of $1.4 million for the year ended December 31, 2016, primarily due to the net change in subscription license revenue recognition. In addition, as of December 31, 2017, adoption of the standard resulted in an increase in deferred commission of $13.5 million, a decrease in short-term deferred revenues of $0.4 million, a decrease in long-term deferred revenues of $0.4 million and an increase of $1.2 million in deferred tax liabilities. This is the result of the capitalization of sales commission costs and the upfront recognition of license revenues from subscription licenses. The cumulative impact to our accumulated deficit as of January 1, 2016 is a reduction of $9.7 million.

Adoption of the standard related to revenue recognition had no impact to cash from or used in operating, financing or investing activities on our consolidated statements of cash flows.

Select recast financial statement information, which reflects the preliminary effect of the adoption of this standard, is set forth below.

	Year ended December 31, 2017		
	As Reported	Adjustments	Recast for Adoption of ASC 606
Revenues:			
License revenues	$123,610	$ (3,269)	$120,341
Maintenance and service revenues	93,754	1,295	95,049
Total revenues	217,364	(1,974)	215,390
Cost of revenues	20,873	(159)	20,714
Gross profit	196,491	(1,815)	194,676
Operating costs and expenses:			
Research and development	47,369	—	47,369
Sales and marketing	135,896	(1,971)	133,925
General and administrative	26,823	(22)	26,801
Total operating expenses	210,088	(1,993)	208,095
Operating loss	(13,597)	178	(13,419)
Financial income, net	2,362	—	2,362
Loss before income taxes	(11,235)	178	(11,057)
Income taxes	(2,459)	(328)	(2,787)
Net loss	$(13,694)	$ (150)	$(13,844)

	Year ended December 31, 2016		
	As Reported	Adjustments	Recast for Adoption of ASC 606
Revenues:			
License revenues	$92,873	$ 370	$93,243
Maintenance and service revenues	71,583	1,037	72,620
Total revenues	164,456	1,407	165,863
Cost of revenues	15,843	(106)	15,737
Gross profit	148,613	1,513	150,126
Operating costs and expenses:			
Research and development	36,660	—	36,660
Sales and marketing	107,825	(2,186)	105,639
General and administrative	19,822	—	19,822
Total operating expenses	164,307	(2,186)	162,121
Operating loss	(15,694)	3,699	(11,995)
Financial expenses, net	(885)	—	(885)
Loss before income taxes	(16,579)	3,699	(12,880)
Income taxes	(1,131)	(182)	(1,313)
Net loss	$(17,710)	$ 3,517	$(14,193)

	December 31, 2017 Balance Sheet Data		
	As Reported	Adjustments	As Adjusted
Assets			
Current assets:			
Prepaid expenses and other current assets	$7,130	$ 7,216	$14,346
Long-term assets:			
Other assets	$973	$ 6,270	$7,243
Liabilities and stockholders' equity			
Current liabilities:			
Deferred revenues	$73,891	$ (398)	$73,493
Long-term liabilities:			
Deferred revenues	$7,034	$ (426)	$6,608
Other liabilities	$6,561	$ 1,246	$7,807
Stockholders' equity:			
Accumulated deficit	$(122,454)	$ 13,064	$(109,390)

	Statement of Cash Flows Year Ended December 31, 2017		
	As Reported	Adjustments	As Adjusted
Cash flows from operating activities			
Net loss	$(13,694)	$ (150)	$(13,844)
Amortization of deferred commissions	$—	$ 12,591	$12,591
Deferred commissions	$—	$ (14,742)	$(14,742)
Deferred revenues	$18,885	$ 1,975	$20,860
Other long term liabilities	$(731)	$ 326	$(405)
Net cash provided by operating activities	$16,351	$ —	$16,351

	Statement of Cash Flows Year Ended December 31, 2016		
	As Reported	Adjustments	As Adjusted
Cash flows from operating activities			
Net loss	$(17,710)	$ 3,517	$(14,193)
Amortization of deferred commissions	$—	$ 9,525	$9,525
Deferred commissions	$—	$ (11,817)	$(11,817)
Deferred revenues	$13,269	$ (1,409)	$11,860
Other long term liabilities	$147	$ 184	$331
Net cash provided by operating activities	$7,347	$ —	$7,347

In November 2016, the FASB issued ASU 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash", which requires companies to include amounts generally described as restricted cash and restricted cash equivalents in cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows. This ASU is effective for annual and interim periods beginning after December 15, 2017. We adopted this standard effective December 31, 2017 using the retrospective transition method, as required by the new standard. The adoption of this standard had an immaterial impact on our consolidated statements of cash flows.

The following table provides a reconciliation of cash and cash equivalents, and long term restricted cash reported within the consolidated balance sheets that sum to the total of such amounts in the consolidated statements of cash flows:

	December 31, 2018	December 31, 2017	December 31, 2016
Cash and cash equivalents	$ 48,707	$ 56,689	$ 48,315
Long term restricted cash included in other assets	—	547	488
Cash, cash equivalents and long term restricted cash shown in the consolidated statement of cash flows	$ 48,707	$ 57,236	$ 48,803

Under U.S. GAAP, we are permitted to make an accounting policy election to either treat taxes due on future inclusions in U.S. taxable income related to GILTI as a component of current income tax expense when incurred or to factor such amounts into our measurement of our deferred tax expense. We have made an accounting policy election to treat GILTI as a component of current income tax expense.

Recently Issued Accounting Pronouncements Not Yet Adopted

In January 2016, the FASB issued ASU 2016-13, "Financial Instruments – Credit Losses on Financial Instruments", which requires that expected credit losses relating to financial assets measured on an amortized cost basis and available for sale debt securities be recorded through an allowance for credit losses. ASU 2016-13 limits the amount of credit losses to be recognized for available for sale debt securities to the amount by which carrying value exceeds fair value and also requires the reversal of previously recognized credit losses if fair value increases. The new standard will be effective for interim and annual periods beginning after January 1, 2020, and early adoption is permitted. We are currently evaluating whether to early adopt this standard and the potential effect on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, "Leases", on the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e., lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset ("ROU") and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for in a manner similar to the accounting under existing guidance for operating leases today. The new standard requires lessors to account for leases using an approach that is substantially equivalent to existing guidance for sales-type leases, direct financing leases and operating leases. ASC 842 supersedes the previous leases standard, ASC 840, "Leases". The guidance is effective for the interim and annual periods beginning on or after December 15, 2018, and we have adopted the standard on January 1, 2019. A modified retrospective transition approach is required, applying the new standard to all leases existing at the date of initial application. The standard provides a number of optional practical expedients in transition. We are electing the 'package of practical expedients', which permits us not to reassess under the new standard our prior conclusions about lease identification, lease classification and initial direct costs. To adopt this new standard, we have implemented changes to our existing systems and processes in conjunction with a review of existing vendor agreements. We expect adoption of the standard to have a material impact on our consolidated balance sheets which will result in the recognition of ROU assets and lease liabilities of approximately $60 million to $70 million at January 1, 2019. The most significant impact from recognition of ROU assets and lease liabilities relates to our office space. However, we do not anticipate that the adoption of this standard will have a material impact on the operating expenses in our consolidated statements of operations since the expense recognition under this new standard will be similar to current practice. Our financial income (expenses), net will be impacted by the revaluation of the lease liabilities in non-USD denominated currencies.

In June 2018, the FASB issued ASU No. 2018-07, “Compensation - Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting.” These amendments expand the scope of Topic 718, Compensation - Stock Compensation (which currently only includes share-based payments to employees) to include share-based payments issued to nonemployees for goods or services. Consequently, the accounting for share-based payments to nonemployees and employees will be substantially aligned. This ASU supersedes Subtopic 505-50, Equity - Equity-Based Payments to Non-Employees. The guidance is effective for the interim and annual periods beginning after December 15, 2018. We expect to adopt this standard effective January 1, 2019 and do not expect it to have a material effect on our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in foreign currency exchange rates. We do not hold financial instruments for trading purposes.

Market Risk

We are exposed to certain financial risks, including fluctuations in foreign currency exchange rates and interest rates. We manage our exposure to these market risks through internally established policies and procedures. Our policies do not allow speculation in derivative instruments for profit or execution of derivative instrument contracts for which there are no underlying exposures. We do not use financial instruments for trading purposes, and we are not a party to any leveraged derivatives. We monitor our underlying market risk exposures on an ongoing basis and, where appropriate, may use hedging strategies to mitigate these risks.

Foreign Currency Exchange Risk

Approximately 30% of our revenues for the years ended December 31, 2018 and 2017 were earned in non-U.S. dollar denominated currencies, mainly in the Euro and Pound Sterling. Our expenses are generally denominated in the currencies in which our operations are located, primarily the U.S. dollar and NIS, and to a lesser extent the Euro, Pound Sterling and Canadian dollar. Our NIS-denominated expenses consist primarily of personnel and overhead costs from our operations in Israel. Our consolidated results of operations and cash flow are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. The effect of a hypothetical 10% change in foreign currency exchange rates applicable to our business would not have a material impact on our historical consolidated financial statements.

For purposes of our consolidated financial statements, local currency assets and liabilities are translated at the rate of exchange to the U.S. dollar on the balance sheet date and local currency revenues and expenses are translated at the exchange rate at the date of the transaction or the average exchange rate dollar during the reporting period to the United States.

To date, we have used derivative financial instruments, specifically foreign currency forward contracts, to manage exposure to foreign currency risks, by hedging a portion of our forecasted expenses denominated in NIS expected to occur within 12 months. The effect of exchange rate changes on foreign currency forward contracts is expected to offset the effect of exchange rate changes on the underlying hedged item. We also enter into forward contracts to hedge a portion of our monetary items in the balance sheet, such as trade receivables and payables, denominated in Pound Sterling and Euro for short term periods to protect the fair value of the monetary assets from foreign exchange rate fluctuations. The effect of exchange rate changes on foreign currency forward contracts is expected to offset the effect of exchange rate changes which impacts financial income (expenses), net. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate Risk

We had cash and cash equivalents, marketable securities and short-term deposits of $158.9 million as of December 31, 2018. We hold our cash and cash equivalents, marketable securities and short-term deposits for working capital purposes. Our cash and cash equivalents are held in cash deposits and money market funds. Due to the short-term nature of these instruments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, would reduce our future interest income.

As of December 31, 2018, we had no outstanding obligations under our promissory note. To the extent we enter into other long-term debt arrangements in the future, we would be subject to fluctuations in interest rates which could have a material impact on our future financial condition and results of operation.

Inflation

We do not believe that inflation had a material effect on our business, financial condition or results of operations in the last three fiscal years. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of

VARONIS SYSTEMS, INC.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Varonis Systems, Inc. (the "Company") as of December 31, 2018 and 2017 and the related consolidated statements of operations, statements of comprehensive loss, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018 and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017 and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 12, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the 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 financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KOST FORER GABBAY & KASIERER
A Member of Ernst & Young Global

We have served as the Company's auditor since 2007.
Tel-Aviv, Israel
February 12, 2019

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of

VARONIS SYSTEMS, INC.

Opinion on Internal Control over Financial Reporting

We have audited Varonis Systems, Inc. (the "Company") internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the "COSO Criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO Criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017 and the related consolidated statements of operations, statements of comprehensive loss, changes in stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018 and the related notes of the Company, and our report dated February 12, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ KOST FORER GABBAY & KASIERER
A Member of Ernst & Young Global

Tel-Aviv, Israel
February 12, 2019

VARONIS SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands)

	December 31, 2018	2017 (as adjusted, see Note 2)
Assets		
Current assets:		
Cash and cash equivalents	$48,707	$56,689
Marketable securities	39,770	39,731
Short-term deposits	70,438	40,137
Trade receivables (net of allowance for doubtful accounts of $483 and $433 at December 31, 2018 and December 31, 2017, respectively)	83,223	75,596
Prepaid expenses and other current assets	16,952	14,346
Total current assets	259,090	226,499
Long-term assets:		
Other assets	8,565	7,243
Property and equipment, net	17,323	11,896
Total long-term assets	25,888	19,139
Total assets	$284,978	$245,638

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

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VARONIS SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31, 2018	December 31, 2017 (as adjusted, see Note 2)
Liabilities and stockholders' equity		
Current liabilities:		
Trade payables	$2,620	$635
Accrued expenses and other short term liabilities	55,991	42,453
Deferred revenues	87,729	73,493
Total current liabilities	146,340	116,581
Long-term liabilities:		
Deferred revenues	6,487	6,608
Other liabilities	6,781	7,807
Total long-term liabilities	13,268	14,415
Stockholders' equity:		
Share capital		
Common stock of $0.001 par value - Authorized: 200,000,000 shares at December 31, 2018 and 2017; Issued and outstanding: 29,576,880 shares at December 31, 2018 and 28,146,162 shares at December 31, 2017	30	28
Accumulated other comprehensive income (loss)	(3,633)	136
Additional paid-in capital	266,941	223,868
Accumulated deficit	(137,968)	(109,390)
Total stockholders' equity	125,370	114,642
Total liabilities and stockholders' equity	$284,978	$245,638

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

VARONIS SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share and per share data)

	Year ended December 31, 2018	2017 (as adjusted, see Note 2)	2016 (as adjusted, see Note 2)
Revenues:			
Licenses	$147,613	$120,341	$93,243
Maintenance and services	122,675	95,049	72,620
Total revenues	270,288	215,390	165,863
Cost of revenues	27,683	20,714	15,737
Gross profit	242,605	194,676	150,126
Operating costs and expenses:			
Research and development	69,971	47,369	36,660
Sales and marketing	168,309	133,925	105,639
General and administrative	33,460	26,801	19,822
Total operating expenses	271,740	208,095	162,121
Operating loss	(29,135)	(13,419)	(11,995)
Financial income (expenses), net	970	2,362	(885)
Loss before income taxes	(28,165)	(11,057)	(12,880)
Income taxes	(413)	(2,787)	(1,313)
Net loss	$(28,578)	$(13,844)	$(14,193)
Net loss per share of common stock, basic and diluted	$(0.98)	$(0.50)	$(0.54)
Weighted average number of shares used in computing net loss per share of common stock, basic and diluted	29,020,645	27,467,440	26,406,312

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

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VARONIS SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	Year ended		
	2018	2017 (as adjusted, see Note 2)	2016 (as adjusted, see Note 2)
Net loss	$(28,578)	$(13,844)	$(14,193)
Other comprehensive income (loss):			
Unrealized income (loss) on marketable securities, net of tax	48	(27)	—
Gains on marketable securities reclassified into earnings, net of tax	(27)	—	—
	21	(27)	—
Unrealized income (loss) on derivative instruments, net of tax	(7,531)	3,291	184
Losses (gains) on derivative instruments reclassified into earnings, net of tax	3,741	(2,649)	(332)
	(3,790)	642	(148)
Total other comprehensive income (loss)	(3,769)	615	(148)
Comprehensive loss	$(32,347)	$(13,229)	$(14,341)

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

VARONIS SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(in thousands, except share data)

	Common stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' equity
	Number	Amount				
Balance as of January 1, 2016	26,069,154	26	172,326	(331)	(88,434)	83,587
Effect of adoption of ASU 2014-09	—	—	—	—	9,697	9,697
Stock-based compensation expense	—	—	12,938	—	—	12,938
Common stock issued under employee stock plans, net	752,608	1	4,071	—	—	4,072
Unrealized loss on derivative instruments	—	—	—	(148)	—	(148)
Net loss	—	—	—	—	(14,193)	(14,193)
Balance as of December 31, 2016	26,821,762	27	189,335	(479)	(92,930)	95,953
Effect of adoption of ASU 2016-09	—	—	2,616	—	(2,616)	—
Stock-based compensation expense	—	—	19,835	—	—	19,835
Common stock issued under employee stock plans, net	1,324,400	1	12,082	—	—	12,083
Unrealized gain on derivative instruments	—	—	—	642	—	642
Unrealized gains and losses on available for sale securities	—	—	—	(27)	—	(27)
Net loss	—	—	—	—	(13,844)	(13,844)
Balance as of December 31, 2017	28,146,162	$ 28	$ 223,868	$ 136	$ (109,390)	$ 114,642
Stock-based compensation expense	—	—	34,961	—	—	34,961
Common stock issued under employee stock plans, net	1,430,718	2	8,112	—	—	8,114
Unrealized loss on derivative instruments	—	—	—	(3,790)	—	(3,790)
Unrealized gains and losses on available for sale securities	—	—	—	21	—	21
Net loss	—	—	—	—	(28,578)	(28,578)
Balance as of December 31, 2018	29,576,880	$ 30	$ 266,941	$ (3,633)	$ (137,968)	$ 125,370

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

VARONIS SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year ended December 31,		
	2018	2017 (as adjusted, see Note 2)	2016 (as adjusted, see Note 2)
Cash flows from operating activities:			
Net loss	$(28,578)		