A10 Networks, Inc.
Form 10-K
August 29, 2018

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

Form 10-K

(Mark One)
x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2017
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number: 001-36343

A10 NETWORKS, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware	20-1446869
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

3 West Plumeria Drive, San Jose, California 95134
(Address of Principal Executive Offices, including zip code)

(408) 325-8668
(Registrant's Telephone Number, Including Area Code)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $.00001 Par Value	New York Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x
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 x
Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ¨ No x
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 during the preceding 12 months (or for such shorter period that the

registrant was required to submit such files). Yes ¨ No x

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

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

Large accelerated filer	¨	Accelerated filer	x
Non-accelerated filer	¨	Smaller reporting company	¨
		Emerging growth company	x

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. x

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of June 30, 2017 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately $359.4 million, based upon the closing sale price of such stock on the New York Stock Exchange. For purposes of this disclosure, shares of common stock held or controlled by executive officers and directors of the registrant and by persons who hold more than 5% of the outstanding shares of common stock have been treated as shares held by affiliates. However, such treatment should not be construed as an admission that any such person is an "affiliate" of the registrant. The registrant has no non-voting common equity.

As of August 24, 2018, the number of outstanding shares of the registrant's common stock, par value $0.00001 per share, was 72,707,302.

DOCUMENTS INCORPORATED BY REFERENCE

None.

A10 NETWORKS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2017
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EXPLANATORY NOTE

Subsequent to the issuance of the condensed consolidated financial statements as of September 30, 2017, and as previously disclosed on January 30, 2018, the Audit Committee of the Board of Directors of A10 Networks, Inc. (“A10 Networks,” the “Company,” “we,” “our,” or “us”), commenced an investigation relating to certain accounting and internal control matters at the Company, principally focused on certain revenue recognition matters from the fourth quarter of 2015 through the fourth quarter of 2017 inclusive. The investigation was conducted with the assistance of outside counsel and independent counsel. Counsel retained forensic accountants to assist with their work. The investigation commenced following the identification of violations of the Company's Insider Trading Policy and Code of Conduct by a mid-level employee within the finance department, and as a result it was determined that further review and procedures relating to certain accounting and internal control matters should be undertaken.

During the course of this investigation, code of conduct breaches and accounting and financial reporting errors were identified. The matters primarily resulted in modification to the timing of the recognition of revenue in a limited number of sale transactions between the Company and its resellers and distributors. The Company determined the need to restate the consolidated financial statements as of and for the year ended December 31, 2016. The Company is also adjusting the consolidated financial statements as of and for the year ended December 31, 2015 to correct identified immaterial errors.

This Annual Report on Form 10-K for the fiscal year ended December 31, 2017 (“2017 Form 10-K”) includes changes to: (1) our consolidated balance sheets as of December 31, 2016 and 2015, and our consolidated statements of operations, consolidated statements of comprehensive loss, consolidated statements of stockholders’ equity and consolidated statements of cash flows for the fiscal years ended December 31, 2016 and 2015 in Part III, Item 8 of this 2017 Form 10-K; (2) the selected financial data as of and for the fiscal years ended December 31, 2016 and 2015 in Part II, Item 6; (3) Management’s Discussion and Analysis of Financial Condition and Results of Operations as of and for the fiscal years ended December 31, 2016 and 2015; and (4) our unaudited quarterly financial information for the first three quarters of the fiscal year ended December 31, 2017 and for each quarter for the fiscal year ended December 31, 2016 in Part II, Item 7. See Note 2 - Restatement of Previously Issued Consolidated Financial Statements to our audited consolidated financial statements included in Part II, Item 8 of this 2017 Form 10-K for a detailed discussion of the restatement.

FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward looking statements made pursuant to the provisions of Section 21E of the Securities Exchange Act of 1934. These forward looking statements are based on management's current expectations and beliefs, including estimates and projections about our industry. The following discussion and analysis contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The words "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "pro "expect," and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements.

These forward-looking statements include, but are not limited to, statements concerning the following:

- our ability to maintain an adequate rate of revenue growth;
- our ability to successfully anticipate market needs and opportunities;
- our business plan and our ability to effectively manage our growth;
- loss or delay of expected purchases by our largest end-customers;
- our ability to further penetrate our existing customer base;
- our ability to displace existing products in established markets;
- continued growth in markets relating to network security;
- our ability to timely and effectively scale and adapt our existing technology;
- our ability to innovate new products and bring them to market in a timely manner;
- our ability to expand internationally;
- the effects of increased competition in our market and our ability to compete effectively;
- the effects of seasonal trends on our results of operations;
- our expectations concerning relationships with third parties;
- the attraction and retention of qualified employees and key personnel;
- our ability to achieve or maintain profitability while continuing to invest in our sales, marketing and research and development teams;
- variations in product mix or geographic locations of our sales;
- fluctuations in currency exchange rates;
- increased cost requirements of being a public company and future sales of substantial amounts of our common stock in the public markets;
- the cost and potential outcomes of litigation;
- our ability to maintain, protect, and enhance our brand and intellectual property;
- future acquisitions of or investments in complementary companies, products, services or technologies; and
- our ability to effectively integrate operations of entities we have acquired or may acquire.

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in Item 1A Risk Factors and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties, and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

The forward-looking statements in this report speak only as of the time they are made and do not necessarily reflect our outlook at any other point in time. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future event, or for any other reason. However, readers should carefully review the risk factors set forth in other reports or documents we file from time to time with the Securities and Exchange Commission.

As used herein, “A10 Networks,” the “Company,” “we,” “our,” “us,” and similar terms include A10 Networks, Inc. and its subsidiaries, unless the context indicates otherwise.

PART I.

ITEM 1. BUSINESS

Overview

We are a leading provider of secure application solutions and services that enable a new generation of intelligently connected companies with the ability to continuously improve cyber protection and digital responsiveness across dynamic Information Technology ("IT") and network infrastructures. Our portfolio of software and hardware solutions combines industry-leading performance and scale with advanced intelligent automation, machine learning, data driven analytics, and threat intelligence to ensure security and availability of customer applications across their multi-cloud networks, including on-premise, private and public clouds. As the cyber threat landscape intensifies and network architectures evolve, we are committed to providing customers with greater connected intelligence to improve the security, visibility, availability, flexibility, management and performance of their applications. Our customers include leading cloud providers, web-scale businesses, service providers, government organizations, and enterprises.

Industry Trends & Market Drivers

The digitization of business has made applications a critical ingredient in virtually every aspect of operations. How safely and efficiently applications perform determines how businesses perform, how they compete, grow, and stand out in the marketplace. The application networking industry is experiencing dynamic shifts in the way applications are developed, delivered, monetized and protected. Our corporate strategy and technology address these evolving needs of our customers and industry, including:

Increased Adoption of Cloud Applications. For decades, businesses operated with applications based in physical, appliance-based data centers. While these traditional applications remain central to businesses around the world, a new genre of cloud-based applications is emerging, presenting new opportunities and challenges that require organizations to reassess the visibility, performance and security of their applications. Some of these challenges relate to how a business effectively manages secure application services across various data centers and cloud types - whether private, public or hybrid clouds. Over time, more and more applications may be born in the cloud, while some applications that existed in traditional data centers may migrate to clouds as well. To address this shift, businesses will need solutions that bridge both traditional and cloud-based application environments and centrally manage all secure application services holistically in this multi-cloud world.

Increased Network Complexity and New Infrastructure Paradigms Traditional IT vendors may need to shift from hardware-centric models to software-defined approaches to improve agility for critical applications, and subsequently, their business operations. Ensuring product portfolios adapt and diversify to include traditional hardware as well as newer software and cloud-based offerings are key factors determining future market leadership and competitive landscapes.

Growing Importance of Automation and Orchestration. As applications increasingly move to a multi-cloud environment, the deployment of orchestration and automation tools has become essential to efficiently automating the deployment and operations of security and application services. There is a need for increased operational efficiency and agility, improved detection and reporting of security anomalies, enhanced end-user experiences and reduced total cost of ownership ("TCO"), simplified management of distributed application services, improved capacity planning and optimized multi-cloud software lifecycle management. By deploying newly developed secure application delivery automation and analytics tools, enterprises are able to visualize their application performance and to detect anomalous trends.

The Rise of DDoS Attacks. The cyberthreat landscape continues to intensify and grow. Malicious actors and cybercriminals such as hacktivists, amateur hackers, and foreign military and intelligence organizations target data centers of every type. Distributed Denial of Service (“DDoS”) attacks are increasing in size, frequency, complexity and notoriety. IT defenders are faced with the increasing sophistication of adversaries who are responsible for the size and frequency of these attacks. According to the A10 Networks Application Intelligence Report (“AIR”), 44% percent of the IT professionals surveyed in January 2018 expect DDoS attacks to increase over the next year, and 70 percent expect overall cyberattacks to increase or remain the same.

A DDoS attack seeks to render a target network or website unavailable by orchestrating coordinated attacks from massive worldwide networks of compromised endpoints, called botnets. Compromised endpoints can be computing devices or “Internet of Things” driven devices like video cameras. Any internet-connected device can be vulnerable to hackers and utilized as part of a botnet.

Rapid growth of SSL, encrypted applications, and hidden threats. Many applications use the Secure Sockets Layer (“SSL”) protocol. Cyber criminals exploit the protocol to hide malicious malware within encrypted channels and carry out attacks against businesses and users. This malicious trend drives demand for greater visibility within SSL-encrypted channels. Businesses need a way to decrypt traffic and apply outbound security policies efficiently, and require an effective way to inspect, identify, and remediate malicious traffic, then re-encrypt traffic and deliver it quickly to its destination. Conducting this process efficiently without placing a “security performance tax” on the user experience is a critical requirement.

Rapid Growth of Internet-Connected Devices and the Exhaustion of the Existing IP Address Space. The rapid growth of mobile and other internet-connected devices threatens to overwhelm the current Internet Protocol (“IP”) addressing scheme, IPv4. This “Internet of Things” trend, combined with mobility and widespread access to the internet globally, all feed each other. Supporting the rapid growth of internet-connected devices requires application networking technology to play a significant role in managing two internet connection standards simultaneously, extending the viability of IPv4 while enabling customers to move to IPv6. As new trends like 5G emerge in coming years, the need for IPv4 preservation and IPv6 transition may increase in importance.

Need for Advanced Secure Application Service Solutions. To address these challenges, advanced and integrated solutions for managing secure application services across businesses’ application environments are needed. Of the many solution requirements, some of the more critical include:

Ability to Centrally Manage Traditional and Cloud Environments. As more applications are born in the cloud, and they operate alongside traditional applications supported by on-premise and appliance-based data centers, application delivery and security solutions will be called upon to span traditional and cloud-based environments. In doing so, solutions must centrally control and manage secure application services across any combination of traditional data centers and clouds. To support data centers and different cloud types, solutions require a variety of form factors; hardware, software (i.e. virtual, bare metal) and cloud-based offerings.

Clear Visibility and Sophisticated Analytics. The effectiveness of application performance and security depends greatly on the level of visibility a business has into its application traffic. That visibility must be able to span any number of data centers and cloud types to ensure a holistic view of security threats and performance issues affecting applications. The deeper and clearer the visibility, the better the analytics and actionable information that can be applied to enhancing application performance and protection. Secure application service solutions must be driven by solid visibility and per-app analytics.

Ability to Scale. Performance and security at scale are paramount in today’s dynamic application environments. Solutions need to analyze application traffic quickly and enhance performance and security in traditional and cloud-based application environments in a centrally managed manner.

Sophisticated Security Functionality. Secure application service solutions must detect and mitigate sophisticated cybersecurity threats, such as malicious threats hiding in encrypted traffic and DDoS attacks. To defend against the rising volume of sophisticated cyber-attacks, solutions require exceptional performance and scale without dramatically increasing footprint and total cost of ownership.

Product Portfolio

Our product portfolio seeks to address many of the aforementioned challenges and solution requirements. The portfolio consists of six secure application solutions and two intelligent management and automation tools.

While our revenue to date has been predominantly hardware-based, software and cloud-based solutions are becoming an increasingly important part of the solutions portfolio. Our solutions are available in a variety of form factors, such as optimized hardware appliances, bare metal software, virtual appliances and cloud-native software. Our comprehensive and flexible application solutions portfolio, combined with our Harmony Controller positions the Company to address the growing need for shifting workloads to a mix of private clouds and public clouds. A10 Harmony Controller is built on microservices and container technologies and offers a multi-tenant, highly scalable controller architecture that incorporates real-time analytics at a per-app level and central management and orchestration of secure application services across hybrid environments - from physical data centers to public, private and hybrid clouds.

The following is a further overview of our portfolio:

Secure application solutions:
1) Thunder Application Delivery Controllers ("ADC")
2) Lightning Application Delivery Controller ("Lightning ADC")
3) Thunder Carrier Grade Network Address Translation ("CGN")
4) Thunder Threat Protection System ("TPS")
5) Thunder SSL Insight ("SSLi")
6) Thunder Convergent Firewall ("CFW")

Intelligent management and automation tools:
1) Harmony Controller
2) aGalaxy

The following is an overview of our portfolio:

Secure Application Solutions
1) Thunder Application Delivery Controller. Thunder ADC provides advanced server load balancing, including global server load balancing, high availability, aFleX scripting, aVCS, ADP virtualization delivery for multi-tenancy, SSL, acceleration, SSL intercept, caching and compression, web application firewall ("WAF"), domain name server ("DNS"), application firewall ("DAF") and others. ADCs are typically deployed in front of a server farm within a data center, including web, application and database servers.

2) Lightning Application Delivery Controller. Lightning ADC services ADC functionality in the cloud, increasing the agility and reducing costs for customers. Introduced after the acquisition of Appcito, Inc. ("Appcito") in 2016, Lightning ADC is a cloud-native software-as-a-service ("SaaS") platform designed to boost the delivery and security of applications and microservices across public, private and hybrid clouds, enabling ADC-as-a-service. Central to the Lightning ADC is the SaaS-based A10 Harmony Controller, which provides central management, policy configuration, and a big data repository and analytics engine.

3) Thunder Carrier Grade Network Address Translation. Thunder CGN extends the life of increasingly scarce IPv4 address blocks and their associated infrastructure using Carrier-Grade network address translation ("NAT"), and also provides migration solutions to the IPv6 addressing standard. Our CGN solution is typically deployed in service provider networks to provide standards-compliant address and protocol translation services between varying types of IP addresses, and has been successfully implemented by many large service providers around the world.

4) Thunder Threat Protection System. Thunder TPS solution provides high-volume, large-scale protection for customers' networks and server resources against massive DDoS attacks. TPS is typically deployed at the perimeter of the networks to protect internal network resources from large-scale, volumetric and multi-vector attacks. In October 2017, we significantly expanded the TPS solution with the launch of a dedicated detector function, improved workflow and automation in aGalaxy TPS, as well as enhancements for TPS mitigation. TPS is augmented by the A10 Threat Intelligence Service which can block known bad connections (i.e., IP addresses) from entering protected networks. This service is based on software licensed from ThreatSTOP, Inc.

5) Thunder SSL Insight. Thunder SSLi eliminates the inherent blind spots created by SSL encryption by offloading CPU-intensive SSL decryption functions that enable security devices to inspect and remove malware within encrypted traffic. Thunder SSLi decrypts SSL-encrypted traffic and forwards it to a third-party security device, such as a firewall, for deep packet inspection ("DPI"). Once the traffic has been analyzed and scrubbed, Thunder SSLi re-encrypts the traffic and forwards it to its intended destination.

6) Thunder Convergent Firewall. Thunder CFW addresses multiple critical security capabilities in one package by consolidating multiple security and networking functions in a single appliance, helping customers significantly lower capital and operating expenses. Its performance and scale delivers superior value to customers, all within a small form factor, and streamlines customer operations with a cloud-ready programmable platform.

Thunder CFW includes:

- A high-performance Secure Web Gateway with integrated explicit proxy, URL filtering and SSL visibility, enabling security policy enforcement for outbound HTTP/HTTPS client traffic.

- A high-performance data center firewall with integrated network denial-of-service protection and server load balancing, and provides a Layer 4 stateful firewall and Layer 7 application-level gateway functionality for protecting data center applications from emerging network and DDoS threats.

- A high-performance Gi/SGi firewall with integrated network DDoS and CGNAT. The Gi/SGi firewall protects the mobile operator infrastructures from Internet-based DDoS and other security threats.

- A high-performance IPsec site-to-site VPN that helps businesses secure application traffic between data centers and enables customers to securely transport application traffic over public networks.

Intelligent Management and Automation Tools

1) Harmony Controller. Harmony Controller provides intelligent management, automation and analytics for secure application delivery in multi-cloud environments. Our Harmony Controller simplifies operations. Infrastructure and application operations teams can centrally manage configuration and application policies for our Thunder and Lightning application services, such as load balancing, application delivery and web application firewall. Configuration and control can also be automated via application program interface (“API”) and integrated with orchestration systems used within organizations. In addition, the controller provides comprehensive infrastructure and per-application metrics and analytics for performance and security monitoring, anomaly detection and faster troubleshooting. The container-based, microservices architecture allows controller capacity to be scaled without interrupting operations. Our Harmony Controller is available in two deployment models: A10 managed software as a service (“SaaS”), or as a self-managed, on premise deployment.

2) aGalaxy. aGalaxy multi-device network management solution enables a network administrator to manage multiple Thunder devices for both base configurations and advanced TPS or ADC configurations. aGalaxy is designed to provide lower operational costs, as staff are freed up from repetitive tasks, while also increasing precision and accuracy with centralized and automated tasks, reducing the potential for human error. aGalaxy is available as a hardware appliance or a software-only virtual machine. In October 2017, we significantly enhanced the aGalaxy TPS offering with improved workflow and automation capabilities, and integration with TPS Detector.

Product Form Factors

Our products are offered in a variety of form factors and payment models, including physical appliances and software licenses, as well as pay-as-you-go licensing models and FlexPool, a flexible consumption-based software model. FlexPool, which was announced in the fourth quarter of 2017, allows businesses to flexibly allocate and re-distribute capacity across applications, multiple clouds and data centers.

Thunder Series. ADC, CGN, TPS, SSLi, and CFW products are available on the Thunder Series family of physical appliances. The Thunder Series products support throughput ranges from 2 Gbps to 300 Gbps. The appliance family provides a variety of other security and performance options.

vThunder virtual appliances operate on all major hypervisor platforms, including VMware, Microsoft Hyper-V and Linux KVM. vThunder is also available from cloud providers like Amazon Web Services (“AWS”), Microsoft Azure, and service providers.

Thunder for Bare Metal is a software version of our ADC and CGN solutions that is designed to run on a variety of Intel x86 servers, allowing the customer to design and select their own hardware platform.

Lightning is a cloud-native SaaS ADC product designed to boost the delivery and security of applications and microservices across public, private and hybrid clouds. Our Lightning ADC and the A10 Harmony Controller’s multi-cloud management capabilities allow flexible application deployment across multiple clouds with the ability to maintain and manage diverse workloads. Our Lightning ADC will run natively on public cloud environments, such as Amazon Web Services, Microsoft Azure, and Google Cloud Platforms.

AX Series: Our ADC and CGN solutions are available on select older models from the AX Series line.

Underlying Technology

Since our inception, our solutions have been known for their high performance and scalability in some of the largest and most demanding networks. The value and significance of our high-performance offerings reside in our portfolio's underlying software operating system. With the exception of Lightning ADC, our products are built on the Advanced Core Operating System ("ACOS") platform and leverage its performance optimization and security features.

The ACOS platform is optimized for modern 64-bit central processing units ("CPUs"), which increasingly have multiple parallel processing cores that operate within a single CPU for higher efficiency and performance scalability. To maximize the capabilities of these increasingly dense multi-core CPUs, ACOS implements a proprietary shared memory architecture that provides all cores with simultaneous access to common memory. This shared memory software architecture enables our products to utilize these multi-core CPUs efficiently and scale performance with increasing CPU cores. As a result, ACOS provides customers with products that can deliver superior price performance benefits over products that lack these capabilities.

ACOS' high-performance design enables our products to address a wide range of performance-driven networking challenges. The flexible software design of ACOS allows us to apply our portfolio to a variety of markets for a variety of needs. Some notable details about ACOS include:

High Performance and Intelligent Network I/O Processing. In order to maximize the efficiency of high density, multi-core processors, we have developed a high performance intelligent network I/O technology that can balance application traffic flows equitably across processor cores. Our Flexible Traffic Accelerator logic can be implemented either as software running within a standard x86 processor or a Field Programmable Gate Array ("FPGA") semiconductor. Our Flexible Traffic Accelerator ("FTA") also performs certain hardware-based security checks for each packet and can discard suspicious traffic before it can impact system performance.

Scalable and Efficient Memory Usage. To improve the performance of the multi-core processor architecture, we have developed a shared memory technology to allow all processors to share common memory and the state of the system simultaneously. This avoids the overhead associated with Inter-Processor Communication architectures deployed in first-generation approaches. We optimize memory to be visible to all cores simultaneously, while minimizing communication overhead and contention among processors for allocated memory space. All processors share a common memory pool, which dynamically allocates memory space based on application processing requirements without constraints. Customers can achieve greater performance and scalability from memory and processor resources because configurations, policies and network databases are efficiently stored within a shared memory architecture.

Optimized Application Networking and Security. Once data is processed and placed into a shared memory, a processor can begin to apply ACOS common services and function-specific logic. To ensure that every processor is utilized to perform every function and thereby achieve greater system utilization, ACOS uses all processor cores symmetrically for all functions and services. The ACOS common services perform a set of key operational functions, including configuration management, network I/O, aFleX scripting, Virtual Chassis System("aVCS"), aXAPI for management integration, Application Delivery Partitions ("ADPs"), virtualization to enable multi-tenancy, and common resource management such as buffer, system memory, timer management and other internal system management tasks. ACOS features a modular software design, which improves reliability by ensuring that modifications made to one module will not have unwanted side effects on other system functions.

Other noteworthy ACOS Technologies. ACOS incorporates a number of other technologies to provide a rich environment for developing Layer 4-7 application networking solutions, including:

aFleX Scripting. aFleX scripting technology is based on industry-standard tool command language and enables customers to write custom scripts to augment the application processing.

ADP. ADP enables multi-tenancy in the ACOS common services so that multiple departments of an organization or multiple customers can share a physical/virtual appliance.

aVCS. aVCS enables multiple physical/virtual appliances to be managed as a single chassis.

aXAPI. aXAPI is an industry standard representational state transfer (“RESTful”) program interface to enable management integration for automated management.

Support & Services

One of our founding principles is to provide excellent customer support. Our global support team is part of our engineering organization and is trained across all products and solutions, and takes complete ownership of customer issues from the beginning to the end to achieve rapid response and resolution. Our consistent, high-quality customer service and technical support is a key factor in attracting and retaining customers of all sizes, as well as support services that include installation, phone support, repair and replacement, software updates, online tools, consulting and training services.

All customers receive standard warranty support for 90 days with the purchase of our products. We offer four maintenance options - Basic, Basic Plus, Gold and Platinum support programs (Platinum available in select countries). Maintenance contracts may be purchased in 12-month increments up to five years. The average maintenance contract term is approximately 18 months. We invoice channel partners or customers directly for maintenance contracts at the time of hardware purchase, and all maintenance contracts are non-cancellable and are generally renewed through the same channel as originally purchased. Software updates are provided to all customers with a current maintenance contract on a when-and-if-available basis. We maintain technical support centers in the United States, Japan, China, India and the Netherlands.

Thunder TPS features an enhanced support offering that includes access to the A10 DDoS Security Incident Response Team (“SIRT”). Augmenting the standard support, the offering includes access to a dedicated team of DDoS mitigation experts specializing in DDoS prevention, offering immediate assistance for mitigating attacks, and a subscription to the A10 Threat Intelligence Service, leveraging collective intelligence to block known threats.

Our professional services team provides a full range of fee-based consulting services, including pre-sale network assessment, comprehensive network analysis and capacity planning, post-sale migration and implementation services, on-site installation and ongoing support.

Customers

Our customers operate in a variety of industries, including telecommunications, technology, industrial, government, retail, financial, gaming, and education. As of December 31, 2017, we had sold our products to more than 6,200 customers across 83 countries. Our customers include the top four United States wireless carriers, seven of the top 10 United States cable providers, and the top three service providers in Japan, in addition to other global enterprises, Web giants, gaming companies and governmental organizations. Our business is geographically diversified with 49% of our total revenue from the United States, 22% from Japan and 29% from other geographic regions for the year ended December 31, 2017. During the years ended December 31, 2017, 2016 and 2015, purchases from our ten largest end-customers accounted for approximately 35%, 36% and 32% of our total revenue, respectively.

In 2016, one distribution channel partner accounted for 14% of our total revenue. In 2017 and 2015, no customer accounted for more than 10% of our total revenue.

Competition

As cloud and security trends continue to gain prominence, changes in application delivery needs, cyber security threats, and the technology landscape result in evolving customer requirements to address application performance and security. These evolving demands have expanded our addressable market into DDoS protection, CGN and multiple areas of network security, where we compete with a number of companies not included among traditional ADC vendors. The agility and flexibility of the ACOS platform enables us to rapidly innovate and deploy solutions into adjacent markets to ADC. We have also enhanced our portfolio with the Harmony Controller, an intelligent management, automation, and analytics platform for secure application delivery in multi-cloud environments. This container and microservices-based product complements our comprehensive set of hardware, software and cloud offerings.

We do not consider any of these markets to include a single dominant company, nor do we consider the markets to be fragmented. Our main competitors fall into the following categories:

- Companies that sell products in the traditional ADC market, such as F5 Networks, Inc. (“F5 Networks”) and Citrix Systems, Inc. (“Citrix Systems”);
- Companies that sell open source, software-only, cloud-based ADC services, such as Avi Networks Inc. (“Avi Networks”), NGINX Inc. (“NGiNX”), and HAProxy Technologies, Inc. (“HAProxy”) as well as many startups;
- Companies that sell CGN products, which were originally designed for other networking purposes, such as edge routers and security appliances from vendors like Cisco Systems, Inc. (“Cisco Systems”) and Juniper Networks, Inc. (“Juniper Networks”);
- Companies that sell traditional DDoS protection products, such as Arbor Networks, Inc., a subsidiary of NetScout Systems, (“Arbor Networks”) and Radware, Ltd. (“Radware”);
- Companies that sell SSL decryption and inspection products, such as Symantec Corporation (through its acquisition of Blue Coat Systems Inc. in 2016) and F5 Networks; and
- Companies that sell certain network security products, including Secure Web Gateways, SSL Insight/SSL Intercept, data center firewalls and Gi/SGi firewalls.

The key competitive factors in our markets include:

- Ability to innovate and respond to customer needs rapidly;
- Ability to address on-premise and cloud application environments in a secure, centrally managed manner;
- Ability to accommodate any IT delivery model or combination of models, regardless of form factor;
- Breadth and depth of product features and functionality;
- Level of customer satisfaction;
- Price, performance, and efficiency;
- Ability for products to scale with high-speed network traffic;
- Flexible and agile design of products;
- Ability to detect and mitigate large-scale cyber security threats;
- Brand awareness and reputation;
- Strength of sales and marketing; and
- Ability to attract and retain talented employees.

Sales and Marketing

Sales

Our high-touch salesforce engages customers directly and through distribution channels. Our sales team is comprised of inside sales and field sales personnel who are organized by geography and maintain sales presence in 28 countries, including in the following countries and regions: United States, Western Europe, the Middle East, Japan, China, Taiwan, South Korea, Southeast Asia and Latin America. Our sales organization includes sales engineers with deep technical domain expertise who are responsible for pre-sales technical support, solutions engineering, proof-of-concept work and technical training for our distribution channel partners. Our sales team is also comprised of a channel sales organization that is expanding our market reach through partners. We may continue to grow our sales headcount, including in geographies where we currently do not have a sales presence.

Some customer sales are originated and completed by our OEM and distribution channel partners with little or no direct engagement with our sales personnel. We fulfill nearly all orders globally through our distribution channel partners, which include distributors, value added resellers and system integrators. Revenue fulfilled through our distribution channel partners accounted for 86%, 85% and 81% of our total revenue for the years ended December 31, 2017, 2016 and 2015, respectively.

Marketing

Our strategy is focused on driving greater demand for our products and services, and enabling sales to win as that demand broadens. Our marketing drives global demand generation campaigns, as well as additional awareness and demand via joint marketing campaigns with channel partners and strategic alliance partners worldwide. Our marketing also drives global awareness through industry analyst engagement, financial analyst engagement, media outreach, blogs, social media and events.

Manufacturing

We outsource the manufacturing of our hardware products to original design manufacturers. This approach allows us to benefit from the scale and experience of our manufacturing partners to reduce our costs, overhead and inventory while allowing us to adjust more quickly to changing customer demand. Our manufacturers are Lanner Electronics Inc. (“Lanner”), AEWIN Technologies Co., Ltd. (“AEWIN”) and iBase. These companies manufacture and assemble our hardware products using design specifications, quality assurance programs and standards established by us. Our manufacturers procure components and assemble our products based on our demand forecasts and purchase orders. These forecasts represent our estimates of future demand for our products based on historical trends and analysis from our sales and product management functions as adjusted for overall market conditions. The component parts incorporated into our products are sourced either by our manufacturing partners or directly by us.

We have agreements with Lanner with an initial term of one year and AEWIN with an initial term of six years pursuant to which they manufacture, assemble, and test our products. Each agreement automatically renews for successive one-year terms unless either party gives notice that they do not want to renew. We do not have any long-term manufacturing contracts that guarantee fixed capacity or pricing. Quality assurance and testing is performed at our San Jose, Taiwan and Japan distribution centers, as well as at our manufacturers’ locations. We warehouse and deliver our products out of our San Jose warehouse for the Americas and outsource warehousing and delivery to a third-party logistics provider in some regions.

Research and Development

Our research and development effort is focused on developing new products and enhancing our existing products. Our engineering team works closely with customers and technology partners to identify future needs. A majority of our research and development team is focused on software development, with substantial experience in networking, network management, application delivery, performance optimization, security, software quality engineering and automation.

We believe that innovation and timely development of new features and products is essential to meeting the needs of our end-customers and improving our competitive position. We supplement our own research and development effort with open source technologies and technologies that we license from third parties. We test our products thoroughly to certify and ensure interoperability with third-party hardware and software products.

Our engineering teams are located mainly in our headquarters in San Jose, California, Beijing, China, Bangalore, India and Taipei, Taiwan. For the years ended December 31, 2017, 2016 and 2015, our research and development expenses were $63.0 million, $60.7 million and $54.8 million, representing 27%, 27% and 28% of our total revenue, respectively.

Backlog

As of December 31, 2017 and 2016, we had product backlog of approximately $9.3 million and $19.5 million. Backlog represents orders confirmed with a purchase order for products to be shipped generally within 90 days to customers with approved credit status. Orders are subject to cancellation, rescheduling by customers and product specification changes by customers. Although we believe that the backlog orders are firm, purchase orders may be canceled by the customer prior to shipment without significant penalty. For this reason, we believe that our product backlog at any given date is not a reliable indicator of future revenues.

For the years ended December 31, 2017, 2016 and 2015, our total revenue was $235.4 million, $227.3 million and $196.3 million, respectively, representing growth of 20% from 2015 to 2017. Our total revenue grew 16% in 2016 as compared to 2015 and grew 4% in 2017 as compared to 2016. For the years ended December 31, 2017, 2016 and 2015, our gross margin was 77.4%, 76.1% and 75.3%, respectively. We had net losses of $10.8 million, $22.4 million and $41.9 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws, and restrictions on disclosure to protect our intellectual property rights. As of December 31, 2017, we had 107 United States ("U.S.") patents issued and 63 U.S. patent applications pending, and 53 overseas patents issued and 32 overseas patent applications pending. Our issued U.S. patents, excluding 22 patents that we acquired, expire between 2025 and 2036. Our future success depends in part on our ability to protect our proprietary rights to the technologies used in our principal products. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or to obtain and use trade secrets or other information that we regard as proprietary. In addition, the laws of some foreign countries do not protect our proprietary rights as fully as do the laws of the United States. Any issued patent may not preserve our proprietary position, and competitors or others may develop technologies similar to or superior to our technology. Our failure to enforce and protect our intellectual property rights could harm our business, operating results and financial condition.

We license software from third parties for development of or integration into our products, including proprietary and open source software. We pursue registration of our trademarks and domain names in the United States and other jurisdictions. See Part I, Item 1A. Risk Factors included in this Annual Report on Form 10-K for additional information regarding the risks associated with protecting our intellectual property.

Employees

As of December 31, 2017, we had 835 full-time employees, including 411 engaged in research and development and customer support, 349 in sales and marketing and 75 in general and administrative and other activities. None of our employees is represented by a labor union or is a party to any collective bargaining arrangement in connection with his or her employment with us. We have never experienced any work stoppages, and we consider our relations with our employees to be good.

Corporate Information

A10 Networks, Inc. was incorporated in the State of California in 2004 and subsequently reincorporated in the State of Delaware in March 2014. Our website is located at www.A10networks.com, and our investor relations website is located at http://investors.A10networks.com. The following filings are available through our investor relations website after we file them with the SEC: Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, as well as any amendments to such reports and all other filings pursuant to Section 13(a) or 15(d) of the Securities Act. These filings are also available for download free of charge on our investor relations website. Additionally, copies of materials filed by us with the SEC may be accessed at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 or at www.sec.gov. For information about the SEC's Public Reference Room, contact 1-800-SEC-0330.

We announce material information to the public about A10, our products and services and other matters through a variety of means, including our website (www.A10networks.com), the investor relations section of our website (www.investors.A10networks.com), press releases, filings with the Securities and Exchange Commission, public conference calls, and social media, including our corporate Twitter account (@A10Networks) and our corporate Facebook page (https://www.facebook.com/a10networks). The contents of our website and social media contents are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the Securities and Exchange Commission, or SEC, and any references to our websites are intended to be inactive textual references only. We encourage investors and others to review the information we make public in these locations, as such information could be deemed to be material information. Please note that this list may be updated from time to time.

ITEM 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this report, and in our other public filings. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business, financial condition, operating results, and prospects could be materially harmed. In that event, the trading price of our common stock could decline, perhaps significantly.

We have identified deficiencies in our internal control over financial reporting that resulted in material weaknesses in our internal control over financial reporting and have concluded that our internal control over financial reporting and our disclosure controls and procedures were not effective as of December 31, 2017. If we fail to properly remediate these or any future material weaknesses or deficiencies or to maintain proper and effective internal controls, material misstatements in our financial statements could occur and impair our ability to produce accurate and timely financial statements and could adversely affect investor confidence in our financial reports, which could negatively affect our business.

As described in Item 9A, “Controls and Procedures,” of this Annual Report on Form 10-K, we have concluded that our internal control over financial reporting was not effective as of December 31, 2017, due to the existence of material weaknesses in such controls, and we have also concluded that our disclosure controls and procedures were not effective as of December 31, 2017, due to material weaknesses in our internal control over financial reporting. While we have initiated remediation efforts to address the identified weaknesses, we cannot provide assurance that our remediation efforts will be adequate to allow us to conclude that such controls will be effective as of December 31, 2018. We also cannot assure you that additional material weaknesses in our internal control over financial reporting will not arise or be identified in the future. We intend to continue our control remediation activities and generally improve our internal controls. In doing so, we will continue to incur expenses and expend management time on compliance-related issues.

If our remediation measures are insufficient to address the identified deficiencies, or if additional deficiencies in our internal control over financial reporting are discovered or occur in the future, our consolidated financial statements may contain material misstatements and we could be required to restate our financial results. Moreover, because of the inherent limitations of any control system, material misstatements due to error or fraud may not be prevented or detected on a timely basis, or at all. If we are unable to provide reliable and timely financial reports in the future, our business and reputation may be further harmed. Restated financial statements and failures in internal controls may also cause us to fail to meet reporting obligations, negatively affect investor confidence in our management and the accuracy of our financial statements and disclosures, or result in adverse publicity and concerns from investors, any of which could have a negative effect on the price of our common stock, subject us to further regulatory investigations and penalties or stockholder litigation, and materially adversely impact our business and financial condition.

The Audit Committee’s investigation of certain accounting and internal control matters relating to our current and previously issued financial statements and the audit of our consolidated financial statements as of and for the year ended December 31, 2017 have been time-consuming and expensive, and may result in additional expense.

We have incurred significant expenses, including audit, legal, consulting and other professional fees, in connection with the Audit Committee’s internal investigation, the review of our accounting, the audit of our 2017 financial statements and the ongoing remediation of deficiencies in our internal control over financial reporting. As described in Item 9A, “Controls and Procedures,” of this Annual Report on Form 10-K, we have taken a number of steps in order to strengthen our accounting function and attempt to reduce the risk of future recurrence and errors in accounting determinations. The validation of the efficacy of these remedial steps will result in us incurring near term expenses, and to the extent these steps are not successful, we could be forced to incur significant additional time and expense.

The incurrence of significant additional expense, or the requirement that management devote significant time that could reduce the time available to execute on our business strategies, could have a material adverse effect on our business, results of operations and financial condition.

Our failure to timely file periodic reports we are required to file under the Securities Exchange Act of 1934 could adversely affect the market for our common stock and make it more difficult for us to access the public markets to raise debt or equity capital.

We are filing this Annual Report on Form 10-K approximately five months after it was due. Because of the time required to complete and file this report, we also were unable to timely file our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018 and June 30, 2018 (the “2018 Form 10-Qs”).

As previously disclosed, we received on April 3, 2018 a notice from the New York Stock Exchange (the “NYSE”) indicating that we were not in compliance with the NYSE’s continued listing requirements under the timely filing criteria outlined in Section 802.01E of the NYSE Listed Company Manual as a result of the delay in filing this Annual Report on Form 10-K. Although we are filing this Annual Report on Form 10-K within the NYSE’s six-month period to cure the filing delinquency, we have not filed the 2018 Form 10-Qs and, therefore, remain not in compliance with the NYSE’s continued listing requirements, which subjects us to the risk of delisting. A delisting of our common stock from the NYSE could have a significant negative effect on the value and liquidity of our common stock, may preclude us from using exemptions from certain state and federal securities regulations, and could adversely affect our ability to raise capital on terms acceptable to us or at all.

In addition, as a result of our inability to timely file our periodic reports under the Securities Exchange Act of 1934, we will not be eligible to use a registration statement on Form S-3 to conduct public offerings of our securities until we have timely filed all periodic reports with the SEC for a period of twelve months. Our inability to use Form S-3 during this time period may have a negative impact on our ability to access the public capital markets in a timely fashion because we would be required to file a long-form registration statement on Form S-1 and have it reviewed and declared effective by the SEC. This may limit our ability to access the public markets to raise debt or equity.

If we do not successfully anticipate market needs and opportunities or if the market does not continue to adopt our application networking products, our business, financial condition and results of operations could be significantly harmed.

The application networking market is rapidly evolving and difficult to predict. Technologies, customer requirements, security threats and industry standards are constantly changing. As a result, we must anticipate future market needs and opportunities and then develop new products or enhancements to our current products that are designed to address those needs and opportunities, and we may not be successful in doing so.

Even if we are able to anticipate, develop and commercially introduce new products and enhancements that address the market’s needs and opportunities, there can be no assurance that new products or enhancements will achieve widespread market acceptance. For example, organizations that use other conventional or first-generation application networking products for their needs may believe that these products are sufficient. In addition, as we launch new product offerings, organizations may not believe that such new product offerings offer any additional benefits as compared to the existing application networking products that they currently use. Accordingly, organizations may continue allocating their IT budgets for existing application networking products and may not adopt our products, regardless of whether our products can offer superior performance or security.

If we fail to anticipate market needs and opportunities or if the market does not continue to adopt our application networking products, then market acceptance and sales of our current and future application networking products could be substantially decreased or delayed, we could lose customers, and our revenue may not grow or may decline. Any of such events would significantly harm our business, financial condition and results of operations.

Our success depends on our timely development of new products and features to address rapid technological changes and evolving customer requirements. If we are unable to timely develop and successfully introduce new products and features that adequately address these changes and requirements, our business and operating results could be adversely affected.

Changes in application software technologies, data center and communications hardware, networking software and operating systems, and industry standards, as well as our end-customers’ continuing business growth, result in evolving application networking needs and requirements. Our continued success depends on our ability to identify, develop and introduce in a timely and successful manner, new products and new features for our existing products that meet these needs and requirements.

Our future plans include significant investments in research and development and related product opportunities. Developing our products and related enhancements is time-consuming and expensive. We have made significant investments in our research and development team in order to address these product development needs. Our investments in research and development may not result in significant design and performance improvements or marketable products or features, or may result in products that are more expensive than anticipated. We may take longer to generate revenue, or generate less revenue, than we anticipate from our new products and product enhancements. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position.

If we are unable to develop new products and features to address technological changes and new customer requirements in the application networking market or if our investments in research and development do not yield the expected benefits in a timely manner, our business and operating results could be adversely affected.

We have experienced net losses in recent periods, anticipate increasing our operating expenses in the future and may not achieve or maintain profitability in the future. If we cannot achieve or maintain profitability, our financial performance will be harmed and our business may suffer.

We experienced net losses for the years ended December 31, 2017, 2016 and 2015. Although we experienced revenue growth over these periods, we may not be able to sustain or increase our revenue growth or achieve profitability in the future or on a consistent basis. During the years ended December 31, 2017, 2016 and 2015, we have invested in our sales, marketing and research and development teams in order to develop, market and sell our products. We may continue to invest in these areas in the future. As a result of these expenditures, we may have to generate and sustain increased revenue, manage our cost structure and avoid significant liabilities to achieve future profitability.

Revenue growth may slow or decline, and we may incur significant losses in the future for a number of possible reasons, including our inability to develop products that achieve market acceptance, general economic conditions, increasing competition, decreased growth in the markets in which we operate, or our failure for any reason to capitalize on growth opportunities. Additionally, we may encounter unforeseen operating expenses, difficulties, complications, delays and other unknown factors that may result in losses in future periods. If these losses exceed our expectations or our revenue growth expectations are not met in future periods, our financial performance will be harmed and our stock price could be volatile or decline.

Our operating results have varied and are likely to continue to vary significantly from period to period and may be unpredictable, which could cause the trading price of our common stock to decline.

Our operating results, in particular, revenue, margins and operating expenses, have fluctuated in the past, and we expect this will continue, which makes it difficult for us to predict our future operating results. The timing and size of sales of our products are highly variable and difficult to predict and can result in significant fluctuations in our revenue from period to period. This is particularly true of sales to our largest end-customers, such as service providers, Web giants and governmental organizations, who typically make large and concentrated purchases and for whom close or sales cycles can be long, as a result of their complex networks and data centers, as well as requests that may be made for customized features. Our quarterly results may vary significantly based on when these large end-customers place orders with us and the content of their orders.

Our operating results may also fluctuate due to a number of other factors, many of which are outside of our control and may be difficult to predict. In addition to other risks listed in this “Risk Factors” section, factors that may affect our operating results include:

- fluctuations in and timing of purchases from, or loss of, large customers;
- the budgeting cycles and purchasing practices of end-customers;
- our ability to attract and retain new end-customers;
- changes in demand for our products and services, including seasonal variations in customer spending patterns or cyclical fluctuations in our markets;
- our reliance on shipments at the end of our quarters;

- variations in product mix or geographic locations of our sales, which can affect the revenue we realize for those sales;
- the timing and success of new product and service introductions by us or our competitors;
- our ability to increase the size of our distribution channel and to maintain relationships with important distribution channel partners;
- our ability to improve our overall sales productivity and successfully execute our marketing strategies;

- the effect of currency exchange rates on our revenue and expenses;

- the cost and potential outcomes of existing and future litigation;

- the effect of discounts negotiated by our largest end-customers for sales or pricing pressure from our competitors;

- changes in the growth rate of the application networking market or changes in market needs;

- inventory write downs, which may be necessary for our older products when our new products are launched and adopted by our end-customers; and

- our third-party manufacturers' and component suppliers' capacity to meet our product demand forecasts on a timely basis, or at all.

Any one of the factors above or the cumulative effect of some of these factors may result in significant fluctuations in our financial and other operating results. This variability and unpredictability could result in our failure to meet our or our investors' or securities analysts' revenue, margin or other operating results expectations for a particular period, resulting in a decline in the trading price of our common stock.

Reliance on shipments at the end of the quarter could cause our revenue for the applicable period to fall below expected levels.

As a result of end-customer buying patterns and the efforts of our sales force and distribution channel partners to meet or exceed their sales objectives, we have historically received a substantial portion of purchase orders and generated a substantial portion of revenue during the last few weeks of each quarter. We may be able to recognize such revenue in the quarter received, however, only if all of the requirements of revenue recognition are met by the end of the quarter. Any significant interruption in our information technology systems, which manage critical functions such as order processing, revenue recognition, financial forecasts, inventory and supply chain management, could result in delayed order fulfillment and thus decreased revenue for that quarter. If expected revenue at the end of any quarter is delayed for any reason, including the failure of anticipated purchase orders to materialize (including delays by our customers or potential customers in consummating such purchase orders), our third-party manufacturers' inability to manufacture and ship products prior to quarter-end to fulfill purchase orders received near the end of the quarter, our failure to manage inventory to meet demand, our inability to release new products on schedule, any failure of our systems related to order review and processing, or any delays in shipments or achieving specified acceptance criteria, our revenue for that quarter could fall below our, or our investors' or securities analysts' expectations, resulting in a decline in the trading price of our common stock.

We face intense competition in our market, especially from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.

The application networking market is intensely competitive, and we expect competition to increase in the future. To the extent that we sell our solutions in adjacent markets, we expect to face intense competition in those markets as well. We believe that our main competitors fall into the following categories:

- Companies that sell products in the traditional ADC market, such as F5 Networks, Inc. ("F5 Networks") and Citrix Systems, Inc. ("Citrix Systems");

- Companies that sell open source, software-only, cloud-based ADC services, such as Avi Networks Inc. ("Avi Networks"), NGINX Inc. ("NGiNX"), and HAProxy Technologies, Inc. ("HAProxy") as well as many startups;

- Companies that sell CGN products, which were originally designed for other networking purposes, such as edge routers and security appliances from vendors like Cisco Systems, Inc. (“Cisco Systems”) and Juniper Networks, Inc. (“Juniper Networks”);

- Companies that sell traditional DDoS protection products, such as Arbor Networks, Inc., a subsidiary of NetScout Systems, (“Arbor Networks”) and Radware, Ltd. (“Radware”):

- Companies that sell SSL decryption and inspection products, such as Symantec Corporation (through its acquisition of Blue Coat Systems Inc. in 2016) and F5 Networks; and

- Companies that sell certain network security products, including Secure Web Gateways, SSL Insight/SSL Intercept, data center firewalls and Gi/SGi firewalls.

Many of our competitors are substantially larger and have greater financial, technical, research and development, sales and marketing, manufacturing, distribution and other resources and greater name recognition. In addition, some of our larger competitors have broader products offerings and could leverage their customer relationships based on their other products. Potential customers who have purchased products from our competitors in the past may also prefer to continue to purchase from these competitors rather than change to a new supplier regardless of the performance, price or features of the respective products. We could also face competition from new market entrants, which may include our current technology partners. As we continue to expand globally, we may also see new competitors in different geographic regions. Such current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources.

Many of our existing and potential competitors enjoy substantial competitive advantages, such as:

- longer operating histories;

- the capacity to leverage their sales efforts and marketing expenditures across a broader portfolio of products and services at a greater range of prices;

- the ability to incorporate functionality into existing products to gain business in a manner that discourages users from purchasing our products, including through selling at zero or negative margins, product bundling or closed technology platforms;

- broader distribution and established relationships with distribution channel partners in a greater number of worldwide locations;

- access to larger end-customer bases;

- the ability to use their greater financial resources to attract our research and development engineers as well as other employees of ours;

- larger intellectual property portfolios; and

- the ability to bundle competitive offerings with other products and services.

Our ability to compete will depend upon our ability to provide a better solution than our competitors at a competitive price. We may be required to make substantial additional investments in research and development, marketing and sales in order to respond to competition, and there is no assurance that these investments will achieve any returns for us or that we will be able to compete successfully in the future. We also expect increased competition if our market continues to expand. Moreover, conditions in our market could change rapidly and significantly as a result of technological advancements or other factors.

In addition, current or potential competitors may be acquired by third parties that have greater resources available. As a result of these acquisitions, our current or potential competitors might take advantage of the greater resources of the larger organization to compete more vigorously or broadly with us. In addition, continued industry consolidation might adversely impact end-customers' perceptions of the viability of smaller and even medium-sized networking companies and, consequently, end-customers' willingness to purchase from companies like us.

As a result, increased competition could lead to fewer end-customer orders, price reductions, reduced margins and loss of market share.

Cloud-based computing trends present competitive and execution risks.
We are experiencing an industry-wide trend of customers considering transitioning from purely on-premise network architectures to a computing environment that may utilize a mixture of existing solutions and various new cloud-based

solutions. Concurrently with this transition, pricing and delivery models are also evolving. Many companies in our industry, including some of our competitors, are developing and deploying cloud-based solutions for their customers. In addition, the emergence of new cloud infrastructures may enable new companies to compete with our business. These new competitors may include large cloud providers who can provide their own ADC functionality as well as smaller companies targeting applications that are developed exclusively for delivery in the cloud. We are dedicating significant resources to develop and offer our customers new cloud-based solutions. Also, some of our largest customers are cloud providers that utilize our existing solutions, and we believe that as cloud infrastructures continue to grow our existing solutions may provide benefits to other cloud providers. While we believe our expertise and dedication of resources to developing new cloud-based solutions, together with the benefits that our existing solutions offer cloud providers, represent advantages that provide us with a strong foundation to compete, it is uncertain whether our efforts to develop new cloud-based solutions or our efforts to market and sell our existing solutions to cloud providers will attract the customers or generate the revenue necessary to successfully compete in this new business model. Nor is it clear when or in what manner this new business model will evolve, and this uncertainty may delay purchasing decisions by our customers or prospective customers. Whether we are able to successfully compete depends on our execution in a number of areas, including maintaining the utility, compatibility and performance of our software on the growing assortment of cloud computing platforms and the enhanced interoperability requirements associated with orchestration of cloud computing environments. Any failure to adapt to these evolving trends may reduce our revenues or operating margins and could have a material adverse effect on our business, results of operations and financial condition.

If we are unable to attract new end-customers, sell additional products to our existing end-customers or achieve the anticipated benefits from our investment in additional sales personnel and resources, our revenue may decline, and our gross margin will be adversely affected.

To maintain and increase our revenue, we must continually add new end-customers and sell additional products to existing end-customers. The rate at which new and existing end-customers purchase solutions depends on a number of factors, including some outside of our control, such as general economic conditions. If our efforts to sell our solutions to new end-customers and additional solutions to our existing end-customers are not successful, our business and operating results will suffer.

In certain recent periods, we have added personnel and other resources to our sales and marketing functions, as we focused on growing our business, entering new markets and increasing our market share. We may incur additional expenses by hiring additional sales and marketing personnel and expanding our international operations in order to seek revenue growth. The return on these and future investments may be lower, or may be realized more slowly, than we expect, if realized at all. If we do not achieve the benefits anticipated from these investments, or if the achievement of these benefits is delayed, our growth rates will decline, and our gross margin would likely be adversely affected.

If we are not able to maintain and enhance our brand and reputation, our business and operating results may be harmed in tangible or intangible ways.

We believe that maintaining and enhancing our brand and reputation are critical to our relationships with, and our ability to attract, new end-customers, technology partners and employees. The successful promotion of our brand will depend largely upon our ability to continue to develop, offer and maintain high-quality products and services, our marketing and public relations efforts, and our ability to differentiate our products and services successfully from those of our competitors. Our brand promotion activities may not be successful and may not yield increased revenue. In addition, extension of our brand to products and uses different from our traditional products and services may dilute our brand, particularly if we fail to maintain the quality of products and services in these new areas. We have in the past, and may in the future, become involved in litigation that could negatively affect our brand. If we do not successfully maintain and enhance our brand and reputation, our growth rate may decline, we may have reduced pricing power relative to competitors with stronger brands or reputations, and we could lose end-customers or technology partners, all of which would harm our business, operating results and financial condition.

A limited number of our end-customers, including service providers, make large and concentrated purchases that comprise a significant portion of our revenue. Any loss or delay of expected purchases by our largest end-customers could adversely affect our operating results.

As a result of the nature of our target market and the current stage of our development, a substantial portion of our revenue in any period comes from a limited number of large end-customers, including service providers. During the years ended December 31, 2017, 2016 and 2015, purchases from our ten largest end-customers accounted for approximately 35%, 36% and 32% of our total revenue, respectively. The composition of the group of these ten largest end-customers changes from period to period, but often includes service providers, who accounted for approximately 46%, 42% and 44% of our total revenue during the years ended December 31, 2017, 2016 and 2015, respectively.

Sales to these large end-customers have typically been characterized by large but irregular purchases with long initial sales cycles. After initial deployment, subsequent purchases of our products typically have a more compressed sales cycle. The timing of these purchases and of the requested delivery of the purchased product is difficult to predict. As a consequence, any acceleration or delay in anticipated product purchases by or requested deliveries to our largest end-customers could materially affect our revenue and operating results in any quarter and cause our quarterly revenue and operating results to fluctuate from quarter to quarter.

We cannot provide any assurance that we will be able to sustain or increase our revenue from our largest end-customers nor that we will be able to offset any absence of significant purchases by our largest end-customers in any particular period with purchases by new or existing end-customers in that or a subsequent period. We expect that sales of our products to a limited number of end-customers will continue to contribute materially to our revenue for the foreseeable future. The loss of, or a significant delay or reduction in purchases by, a small number of end-customers could have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Our business could be adversely impacted by changes demanded by our customers in the deployment and payment models for our products.

Our customers have traditionally demanded products deployed in physical, appliance-based on-premise data centers that are paid in full at the time of purchase and include perpetual licenses for our software products. While these products remain central to our business, new deployment and payment models are emerging in our industry that may provide some of our customers with additional technical, business agility and flexibility options. These new models include cloud-based applications provided as SaaS and software subscription licenses where license and service fees are ratable and correlate to the type of service used, the quantity of services consumed or the length of time of the subscription. These models have accounting treatments that may require us to recognize revenue ratably over an extended period of time. If a substantial portion of our customers transition from on-premise-based products to such cloud-based, consumption and subscription-based models, this could adversely affect our operating results and could make it more difficult to compare our operating results during such transition period with our historical operating results.

Some of our large end-customers demand favorable terms and conditions from their vendors and may request price or other concessions from us. As we seek to sell more products to these end-customers, we may agree to terms and conditions that may have an adverse effect on our business.

Some of our large end-customers have significant purchasing power and, accordingly, may request from us and received more favorable terms and conditions, including lower prices than we typically provide. As we seek to sell products to this class of end-customer, we may agree to these terms and conditions, which may include terms that reduce our gross margin and have an adverse effect on our business.

Our gross margin may fluctuate from period to period based on the mix of products sold, the geographic location of our customers, price discounts offered, required inventory write downs and current exchange rate fluctuations.

Our gross margin may fluctuate from period to period in response to a number of factors, such as the mix of our products sold and the geographic locations of our sales. Our products tend to have varying gross margins in different geographic regions. We also may offer pricing discounts from time to time as part of a targeted sales campaign or as a result of pricing pressure from our competitors. In addition, our larger end-customers may negotiate pricing discounts in connection with large orders they place with us. The sale of our products at discounted prices could have a negative impact on our gross margin. We also must manage our inventory of existing products when we introduce new products.

If we are unable to sell the remaining inventory of our older products prior to or following the launch of such new product offerings, we may be forced to write down inventory for such older products, which could also negatively affect our gross margin. Our gross margin may also vary based on international currency exchange rates. In general, our sales are denominated in U.S. dollars; however, in Japan they are denominated in Japanese yen. Changes in the exchange rate between the U.S. dollar and the Japanese yen may therefore affect our actual revenue and gross margin.

We have been, may presently be, or in the future may be, a party to litigation and claims regarding intellectual property rights, resolution of which has been and may in the future be time-consuming, expensive and adverse to us, as well as require a significant amount of resources to prosecute, defend, or make our products non-infringing.

Our industry is characterized by the existence of a large number of patents and by increasingly frequent claims and related litigation based on allegations of infringement or other violations of patent and other intellectual property rights. In the ordinary course of our business, we have been and may presently be in disputes and licensing discussions with others regarding their patents and other claimed intellectual property and proprietary rights. Intellectual property infringement and misappropriation lawsuits and other claims are subject to inherent uncertainties due to the complexity of the technical and legal issues involved, and we cannot be certain that we will be successful in defending ourselves against such claims or in concluding licenses on reasonable terms or at all.

We may have fewer issued patents than some of our major competitors, and therefore may not be able to utilize our patent portfolio effectively to assert defenses or counterclaims in response to patent infringement claims or litigation brought against us by third parties. Further, litigation may involve patent holding companies or other adverse patent owners that have no relevant products revenue and against which our potential patents may provide little or no deterrence. In addition, many potential litigants have the capability to dedicate substantially greater resources than we can to enforce their intellectual property rights and to defend claims that may be brought against them. We expect that infringement claims may increase as the number of product types and the number of competitors in our market increases. Also, to the extent we gain greater visibility, market exposure and competitive success, we face a higher risk of being the subject of intellectual property infringement claims.

If we are found in the future to infringe the proprietary rights of others, or if we otherwise settle such claims, we could be compelled to pay damages or royalties and either obtain a license to those intellectual property rights or alter our products such that they no longer infringe. Any license could be very expensive to obtain or may not be available at all. Similarly, changing our products or processes to avoid infringing the rights of others may be costly, time-consuming or impractical. Alternatively, we could also become subject to an injunction or other court order that could prevent us from offering our products. Any of these claims, regardless of their merit, may be time-consuming, result in costly litigation and diversion of technical and management personnel, or require us to cease using infringing technology, develop non-infringing technology or enter into royalty or licensing agreements.

Many of our commercial agreements require us to indemnify our end-customers, distributors and resellers for certain third-party intellectual property infringement actions related to our technology, which may require us to defend or otherwise become involved in such infringement claims, and we could incur liabilities in excess of the amounts we have received for the relevant products and/or services from our end-customers, distributors or resellers. These types of claims could harm our relationships with our end-customers, distributors and resellers, may deter future end-customers from purchasing our products or could expose us to litigation for these claims. Even if we are not a party to any litigation between an end-customer, distributor or reseller, on the one hand, and a third party, on the other hand, an adverse outcome in any such litigation could make it more difficult for us to defend our intellectual property rights in any subsequent litigation in which we are a named party.

We may not be able to adequately protect our intellectual property, and if we are unable to do so, our competitive position could be harmed, or we could be required to incur significant expenses to enforce our rights.

We rely on a combination of patent, copyright, trademark and trade secret laws, and contractual restrictions on disclosure of confidential and proprietary information, to protect our intellectual property. Despite the efforts we take to protect our intellectual property and other proprietary rights, these efforts may not be sufficient or effective at preventing their unauthorized use. In addition, effective trademark, patent, copyright and trade secret protection may not be available or cost-effective in every country in which we have rights. There may be instances where we are not able to protect intellectual property or other proprietary rights in a manner that maximizes competitive advantage. If we are unable to protect our intellectual property and other proprietary rights from unauthorized use, the value of those assets may be reduced, which could negatively impact our business.

We also rely in part on confidentiality and/or assignment agreements with our technology partners, employees, consultants, advisors and others. These protections and agreements may not effectively prevent disclosure of our confidential information and may not provide an adequate remedy in the event of unauthorized disclosure. In addition, others may independently discover our trade secrets and intellectual property information we thought to be proprietary, and in these cases we would not be able to assert any trade secret rights against those parties. Despite our efforts to protect our intellectual property, unauthorized parties may attempt to copy or otherwise obtain and use our intellectual property or technology. Monitoring unauthorized use of our intellectual property is difficult and expensive. We have not made such monitoring a priority to date and will not likely make this a priority in the future. We cannot be certain that the steps we have taken or will take will prevent misappropriation of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States.

If we fail to protect our intellectual property adequately, our competitors might gain access to our technology, and our business might be harmed. In addition, even if we protect our intellectual property, we may need to license it to competitors, which could also be harmful. For example, we have already licensed all of our issued patents, pending applications, and future patents and patent applications that we may acquire, obtain, apply for or have a right to license to Brocade until May 2025, for the life of each such patent. In addition, we might incur significant expenses in defending our intellectual property rights. Any of our patents, copyrights, trademarks or other intellectual property rights could be challenged by others or invalidated through administrative process or litigation.

We may in the future initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Any litigation, whether or not resolved in our favor, could result in significant expense to us and divert the efforts of our management and technical personnel, as well as cause other claims to be made against us, which might adversely affect our business, operating results and financial condition.

We generate a significant amount of revenue from sales to distributors, resellers, and end-customers outside of the United States, and we are therefore subject to a number of risks that could adversely affect these international sources of our revenue.

A significant portion of our revenue is generated in international markets, including Japan, Western Europe, China, Taiwan and South Korea. During the years ended December 31, 2017, 2016 and 2015, approximately 51%, 49% and 46% of our total revenue, respectively, was generated from customers located outside of the United States. If we are unable to maintain or continue to grow our revenue in these markets, our financial results may suffer.

As a result, we must hire and train experienced personnel to staff and manage our foreign operations. To the extent that we experience difficulties in recruiting, training, managing and retaining an international staff, and specifically sales management and sales personnel, we may experience difficulties in sales productivity in foreign markets. We also seek to enter into distributor and reseller relationships with companies in certain international markets where we do not have a local presence. If we are not able to maintain successful distributor relationships internationally or recruit additional companies to enter into distributor relationships, our future success in these international markets could be limited. Business practices in the international markets that we serve may differ from those in the United States and may require us in the future to include terms in customer contracts other than our standard terms. To the extent that we may enter into customer contracts in the future that include non-standard terms, our operating results may be adversely impacted.

We have a significant presence in international markets and plan to continue to expand our international operations, which exposes us to a number of risks that could affect our future growth.

Our sales team is comprised of field sales and inside sales personnel who are organized by geography and maintain sales presence in 28 countries, including in the following countries and regions: United States, Western Europe, the Middle East, Japan, China, Taiwan, South Korea, Southeast Asia and Latin America. We expect to continue to increase our sales headcount in all markets, particularly in markets where we currently do not have a sales presence. As we continue to expand our international sales and operations, we are subject to a number of risks, including the following:

- greater difficulty in enforcing contracts and accounts receivable collection and possible longer collection periods;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- greater difficulty in recruiting local experienced personnel, and the costs and expenses associated with such activities;

- general economic and political conditions in these foreign markets;
- economic uncertainty around the world, including continued economic uncertainty as a result of sovereign debt issues in Europe and the United Kingdom’s decision to exit the European Union (commonly referred to as “Brexit”);
- management communication and integration problems resulting from cultural and geographic dispersion;

- risks associated with trade restrictions and foreign legal requirements, including the importation, certification, and localization of our products required in foreign countries;

- greater risk of unexpected changes in regulatory practices, tariffs, and tax laws and treaties;

- the uncertainty of protection for intellectual property rights in some countries;

- greater risk of a failure of foreign employees to comply with both U.S. and foreign laws, including antitrust regulations, the U.S. Foreign Corrupt Practices Act ("FCPA"), and any trade regulations ensuring fair trade practices; and

- heightened risk 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, or irregularities in, financial statements.

Because of our worldwide operations, we are also subject to risks associated with compliance with applicable anticorruption laws. One such applicable anticorruption law is the FCPA, which generally prohibits U.S. companies and their employees and intermediaries from making payments to foreign officials for the purpose of obtaining or keeping business, securing an advantage, or directing business to another, and requires public companies to maintain accurate books and records and a system of internal accounting controls. Under the FCPA, U.S. companies may be held liable for actions taken by directors, officers, employees, agents, or other strategic or local partners or representatives. As such, if we or our intermediaries, such as channel partners and distributors, fail to comply with the requirements of the FCPA or similar legislation, governmental authorities in the United States and elsewhere could seek to impose civil and/or criminal fines and penalties which could have a material adverse effect on our business, operating results and financial condition.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our results of operations.

Our consolidated results of operations, financial position and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. Historically, the majority of our revenue contracts are denominated in U.S. dollars, with the most significant exception being Japan, where we invoice primarily in the Japanese yen. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in North America and Japan. Revenue resulting from selling in local currencies and costs incurred in local currencies are exposed to foreign currency exchange rate fluctuations that can affect our operating income. The currency exchange impact of the foreign exchange rates on our net loss was $0.4 million and $1.6 million unfavorable for the years ended December 31, 2017 and 2016, respectively. As exchange rates vary, our operating income may differ from expectations. To the extent our foreign currency exposures become more material, we may elect to deploy normal and customary hedging practices designed to more proactively mitigate such exposure. The use of such hedging activities may not offset any, or more than a portion, of the adverse financial effects of unfavorable movements in currency exchange rates over the limited time the hedges are in place and would not protect us from long term shifts in currency exchange rates.

Our success depends on our key personnel and our ability to hire, retain and motivate qualified product development, sales, marketing and finance personnel.

Our success depends to a significant degree upon the continued contributions of our key management, product development, sales, marketing and finance personnel, many of whom may be difficult to replace. The complexity of our products, their integration into existing networks and ongoing support of our products requires us to retain highly trained professional services, customer support and sales personnel with specific expertise related to our business. Competition for qualified professional services, customer support, engineering and sales personnel in our industry is intense, because of the limited number of people available with the necessary technical skills and understanding of our products. Our ability to recruit and hire these personnel is harmed by tightening labor markets, particularly in the engineering field, in several of our key geographic hiring areas. We may not be successful in attracting, integrating, or retaining qualified personnel to fulfill our current or future needs, nor may we be successful in keeping the qualified personnel we currently have. Our ability to hire and retain these personnel may be adversely affected by volatility or reductions in the price of our common stock, since these employees are generally granted equity-based awards.

Our future performance also depends on the continued services and continuing contributions of our senior management to execute on our business plan and to identify and pursue new opportunities and product innovations. In particular, Lee Chen, our founder and Chief Executive Officer, and Rajkumar Jalan, our Chief Technology Officer, are critical to the development of our technology and the future vision and strategic direction of our company. The loss of services of senior management could significantly delay or prevent the achievement of our development and strategic objectives, which could adversely affect our business, financial condition, and operating results.

Adverse general economic conditions or reduced information technology spending may adversely impact our business.

A substantial portion of our business depends on the demand for information technology by large enterprises and service providers, the overall economic health of our current and prospective end-customers and the continued growth and evolution of the Internet. The timing of the purchase of our products is often discretionary and may involve a significant commitment of capital and other resources. Volatility in the global economic market or other effects of global or regional economic weakness, including limited availability of credit, a reduction in business confidence and activity, deficit-driven austerity measures that continue to affect governments and educational institutions, and other difficulties may affect one or more of the industries to which we sell our products and services. If economic conditions in the United States, Europe and other key markets for our products continue to be volatile or do not improve or those markets experience another downturn, many end-customers may delay or reduce their IT spending. This could result in reductions in sales of our products and services, longer sales cycles, slower adoption of new technologies and increased price competition. Any of these events would likely harm our business, operating results and financial condition. In addition, there can be no assurance that IT spending levels will increase following any recovery.

Exposure to UK political developments, including the outcome of the UK referendum on membership in the European Union, could have a material adverse effect on us.

On June 23, 2016, a referendum was held on the United Kingdom’s membership in the European Union, the outcome of which was a vote in favor of leaving the European Union (commonly referred to as “Brexit”). The Brexit vote creates an uncertain political and economic environment in the United Kingdom and potentially across other European Union member states, which may last for a number of months or years.

The result of the Brexit vote means that the nature of the United Kingdom’s long-term relationship with the European Union is unclear and that there is considerable uncertainty as to when any such relationship will be agreed and implemented. In the interim, there is a risk of economic instability for both the United Kingdom and the European Union, which could adversely affect our results, financial condition and prospects.

The political and economic uncertainty created by the Brexit vote has caused and may continue to cause significant volatility in global financial markets and in the value of the Pound Sterling currency or other currencies, including the Euro. Depending on the terms reached regarding any exit from the European Union, it is possible that there may be adverse practical and/or operational implications on our business.

Consequently, no assurance can be given as to the overall impact of the Brexit and, in particular, no assurance can be given that our operating results, financial condition and prospects would not be adversely impacted by the result.

We are dependent on third-party manufacturers, and changes to those relationships, expected or unexpected, may result in delays or disruptions that could harm our business.

We outsource the manufacturing of our hardware components to third-party original design manufacturers who assemble these hardware components to our specifications. Our primary manufacturers are Lanner and AEWIN, each of which is located in Taiwan. Our reliance on these third-party manufacturers reduces our control over the manufacturing process and exposes us to risks, including reduced control over quality assurance, product costs, and product supply and timing. Any manufacturing disruption at these manufacturers could severely impair our ability to fulfill orders. Our reliance on outsourced manufacturers also may create the potential for infringement or misappropriation of our intellectual property rights or confidential information. If we are unable to manage our relationships with these manufacturers effectively, or if these manufacturers suffer delays or disruptions for any reason, experience increased manufacturing lead-times, experience capacity constraints or quality control problems in their manufacturing operations, or fail to meet our future requirements for timely delivery, our ability to ship products to our end-customers would be severely impaired, and our business and operating results would be seriously harmed.

These manufacturers typically fulfill our supply requirements on the basis of individual orders. We do not have long-term contracts with our manufacturers that guarantee capacity, the continuation of particular pricing terms, or the extension of credit limits. Accordingly, they are not obligated to continue to fulfill our supply requirements, which could result in supply shortages, and the prices we are charged for manufacturing services could be increased on short notice. In addition, our orders may represent a relatively small percentage of the overall orders received by our manufacturers from their customers. As a result, fulfilling our orders may not be considered a priority by one or more of our manufacturers in the event the manufacturer is constrained in its ability to fulfill all of its customer obligations in a timely manner.

Although the services required to manufacture our hardware components may be readily available from a number of established manufacturers, it is time-consuming and costly to qualify and implement such relationships. If we are required to change manufacturers, whether due to an interruption in one of our manufacturers' businesses, quality control problems or otherwise, or if we are required to engage additional manufacturers, our ability to meet our scheduled product deliveries to our customers could be adversely affected, which could cause the loss of sales to existing or potential customers, delayed revenue or an increase in our costs that could adversely affect our gross margin.

Because some of the key components in our products come from limited sources of supply, we are susceptible to supply shortages or supply changes, which could disrupt or delay our scheduled product deliveries to our end-customers and may result in the loss of sales and end-customers.

Our products incorporate key components, including certain integrated circuits that we and our third-party manufacturers purchase on our behalf from a limited number of suppliers, including some sole-source providers. In addition, the lead times associated with these and other components of our products can be lengthy and preclude rapid changes in quantities and delivery schedules. Moreover, long-term supply and maintenance obligations to our end-customers increase the duration for which specific components are required, which may further increase the risk we may incur component shortages or the cost of carrying inventory. If we are unable to obtain a sufficient quantity of these components in a timely manner for any reason, sales and/or shipments of our products could be delayed or halted, which would seriously affect present and future sales and cause damage to end-customer relationships, which would, in turn, adversely affect our business, financial condition and results of operations.

In addition, our component suppliers change their selling prices frequently in response to market trends, including industry-wide increases in demand, and because we do not necessarily have contracts with these suppliers, we are susceptible to price fluctuations related to raw materials and components. If we are unable to pass component price increases along to our end-customers or maintain stable pricing, our gross margin and operating results could be negatively impacted. Furthermore, poor quality in sole-sourced components or certain other components in our products could also result in lost sales or lost sales opportunities. If the quality of such components does not meet our standards or our end-customers' requirements, if we are unable to obtain components from our existing suppliers on commercially reasonable terms, or if any of our sole source providers cease to continue to manufacture such components or to remain in business, we could be forced to redesign our products and qualify new components from alternate suppliers. The development of alternate sources for those components can be time-consuming, difficult and costly, and we may not be able to develop alternate or second sources in a timely manner. Even if we are able to locate alternate sources of supply, we could be forced to pay for expedited shipments of such components or our products at dramatically increased costs.

Real or perceived defects, errors, or vulnerabilities in our products or services or the failure of our products or services to block a threat or prevent a security breach could harm our reputation and adversely impact our results of operations.

Because our products and services are complex, they have contained and may contain design or manufacturing defects or errors that are not detected until after their commercial release and deployment by our customers. Even if we discover those weaknesses, we may not be able to correct them promptly, if at all. Defects may cause our products to be vulnerable to security attacks, cause them to fail to help secure networks, or temporarily interrupt end-customers' networking traffic. Furthermore, our products may fail to detect or prevent malware, viruses, worms or similar threats for any number of reasons, including our failure to enhance and expand our platform to reflect industry trends, new technologies and new operating environments, the complexity of the environment of our end-customers and the sophistication of malware, viruses and other threats. Data thieves and hackers are increasingly sophisticated, often affiliated with organized crime or state-sponsored groups, and may operate large-scale and complex automated attacks. The techniques used to obtain unauthorized access or to sabotage networks change frequently and may not be recognized until launched against a target. Additionally, as a well-known provider of enterprise security solutions, our networks, products, and services could be targeted by attacks specifically designed to disrupt our business and harm our reputation. As our products are adopted by an increasing number of enterprises and governments, it is possible that the individuals and organizations behind advanced attacks will focus on finding ways to defeat our products. In addition, defects or errors in our updates to our products could result in a failure of our services to effectively update end-customers' products and thereby leave our end-customers vulnerable to attacks. Our data centers and networks may experience technical failures and downtime, may fail to distribute appropriate updates, or may fail to meet the increased requirements of a growing installed end-customer base, any of which could temporarily or permanently expose our end-customers' networks, leaving their networks unprotected against security threats. Our end-customers may also misuse or wrongly configure our products or otherwise fall prey to attacks that our products cannot protect against, which may result in loss or a breach of business data, data being inaccessible due to a "ransomware" attack, or other security incidents. For all of these reasons, we may be unable to anticipate all data security threats or provide a solution in time to protect our end-customers' networks. If we fail to identify and respond to new and increasingly complex methods of attack and to update our products to detect or prevent such threats in time to protect our end-customers' critical business data, our business, operating results and reputation could suffer.

If any companies or governments that are publicly known to use our platform are the subject of a cyberattack that becomes publicized, our other current or potential channel partners or end-customers may look to our competitors for alternatives to our products. Real or perceived security breaches of our end-customers' networks could cause disruption or damage to their networks or other negative consequences and could result in negative publicity to us, damage to our reputation, declining sales, increased expenses and end-customer relations issues. To the extent potential end-customers or industry analysts believe that the occurrence of any actual or perceived failure of our products to detect or prevent malware, viruses, worms or similar threats is a flaw or indicates that our products do not provide significant value, our reputation and business could be harmed.

Any real or perceived defects, errors, or vulnerabilities in our products, or any failure of our products to detect a threat, could result in:

- a loss of existing or potential end-customers or channel partners;
- delayed or lost revenue;
- a delay in attaining, or the failure to attain, market acceptance;
- the expenditure of significant financial and product development resources in efforts to analyze, correct, eliminate, or work around errors or defects, to address and eliminate vulnerabilities, to remediate harms potentially caused by those vulnerabilities, or to identify and ramp up production with third-party providers;
- an increase in warranty claims, or an increase in the cost of servicing warranty claims, either of which would adversely affect our gross margins;
- harm to our reputation or brand; and
- litigation, regulatory inquiries, or investigations that may be costly and further harm our reputation.

Our business is subject to the risks of warranty claims, product returns, product liability, and product defects.

Real or perceived errors, failures or bugs in our products could result in claims by end-customers for losses that they sustain. If end-customers make these types of claims, we may be required, or may choose, for customer relations or other reasons, to expend additional resources in order to help correct the problem. Historically, the amount of warranty claims has not been significant, but there are no assurances that the amount of such claims will not be material in the future. Liability provisions in our standard terms and conditions of sale, and those of our resellers and distributors, may not be enforceable under some circumstances or may not fully or effectively protect us from customer claims and related liabilities and costs, including indemnification obligations under our agreements with resellers, distributors or end-customers. The sale and support of our products also entail the risk of product liability claims. We maintain insurance to protect against certain types of claims associated with the use of our products, but our insurance coverage may not adequately cover any such claims. In addition, even claims that ultimately are unsuccessful could result in expenditures of funds in connection with litigation and divert management's time and other resources.

Failure to protect and ensure the confidentiality and security of data could lead to legal liability, adversely affect our reputation and have a material adverse effect on our operating results, business and reputation.

We may collect, store and use certain confidential information in the course of providing our services, and we have invested in preserving the security of this data. We may also outsource operations to third-party service providers to whom we transmit certain confidential data. There are no assurances that any security measures we have in place, or any additional security measures that our subcontractors may have in place, will be sufficient to protect this confidential information from unauthorized security breaches.

We cannot assure you that, despite the implementation of these security measures, we will not be subject to a security incident or other data breach or that this data will not be compromised. We may be required to expend significant capital and other resources to protect against security breaches or to alleviate problems caused by security breaches, or to pay penalties as a result of such breaches. Despite our implementation of security measures, techniques used to obtain unauthorized access or to sabotage systems change frequently and may not be recognized until launched against a target. As a result, we may be unable to anticipate these techniques or implement adequate preventative measures to protect this data. In addition, security breaches can also occur as a result of non-technical issues, including intentional or inadvertent breaches by our employees or service providers or by other persons or entities with whom we have commercial relationships. Any compromise or perceived compromise of our security could damage our reputation with our end-customers, and could subject us to significant liability, as well as regulatory action, including financial penalties, which would materially adversely affect our brand, results of operations, financial condition, business and prospects.

We have incurred, and expect to continue to incur, significant costs to protect against security breaches. We may incur significant additional costs in the future to address problems caused by any actual or perceived security breaches.

Breaches of our security measures or those of our third-party service providers, or other security incidents, could result in: unauthorized access to our sites, networks and systems; unauthorized access to, misuse or misappropriation of information, including personally identifiable information, or other confidential or proprietary information of ourselves or third parties; viruses, worms, spyware or other malware being served from our sites, networks or systems; deletion or modification of content or the display of unauthorized content on our sites; interruption, disruption or malfunction of operations; costs relating to notification of individuals, or other forms of breach remediation; deployment of additional personnel and protection technologies; response to governmental investigations and media inquiries and coverage; engagement of third-party experts and consultants; litigation, regulatory investigations, prosecutions, and other actions; and other potential liabilities. If any of these events occurs, or is believed to occur, our reputation and brand could be damaged, our business may suffer, we could be required to expend significant capital and other resources to alleviate problems caused by such actual or perceived breaches, we could be exposed to a risk of loss, litigation or regulatory action and possible liability, and our ability to operate our business, including our ability to provide maintenance and support services to our channel partners and end-customers, may be impaired. If current or prospective channel partners and end-customers believe that our systems and solutions do not provide adequate security for their businesses' needs, our business and our financial results could be harmed. Additionally, actual, potential or anticipated attacks may cause us to incur increasing costs, including costs to deploy additional personnel and protection technologies, train employees and engage third-party experts and consultants.

Although we maintain privacy, data breach and network security liability insurance, we cannot be certain that our coverage will be adequate for liabilities actually incurred or that insurance will continue to be available to us on economically reasonable terms, or at all. Any actual or perceived compromise or breach of our security measures, or those of our third-party service providers, or any unauthorized access to, misuse or misappropriation of personally identifiable information, channel partners' or end-customers information, or other information, could violate applicable laws and regulations, contractual obligations or other legal obligations and cause significant legal and financial exposure, adverse publicity and a loss of confidence in our security measures, any of which could have an material adverse effect on our business, financial condition and operating results.

Our failure to adequately protect personal data could have a material adverse effect on our business.

A wide variety of provincial, state, national, foreign, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer, and other processing of personal data. These data protection and privacy-related laws and regulations are evolving and being tested in courts and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. For example, the European Union has adopted a General Data Protection Regulation, or GDPR, to supersede the Data Protection Directive. This regulation, which took full effect on May 25, 2018, has caused EU data protection requirements to be more stringent and provide for greater penalties. Noncompliance with the GDPR can trigger fines of up to €20 million or 4% of global annual revenues, whichever is higher. Our failure to comply with applicable laws and regulations, or to protect such data, could result in enforcement action against us, including significant fines, imprisonment of company officials and public censure, claims for damages by end-customers and other affected persons and entities, damage to our reputation and loss of goodwill (both in relation to existing and prospective channel partners and end-customers), and other forms of injunctive or operations-limiting relief, any of which could have a material adverse effect on our operations, financial performance, and business. Evolving and changing definitions of personal data and personal information, within the European Union, the United States, and elsewhere, especially relating to classification of Internet Protocol ("IP") addresses, machine identification, location data, biometric data and other information, may limit or inhibit our ability to operate or expand our business, including limiting strategic partnerships that may involve the sharing of data. We may be required to expend significant resources to modify our solutions and otherwise adapt to these changes, which we may be unable to do on commercially reasonable terms or at all, and our ability to develop new solutions and features could be limited. These developments could harm our business, financial condition and results of operations. Even if not subject to legal challenge, the perception of privacy concerns, whether or not valid, may harm our reputation and inhibit adoption of our products by current and prospective end-customers.

If the general level of advanced cyberattacks declines, or is perceived by our current or potential customers to have declined, our business could be harmed.

Our security business may be dependent on enterprises and governments recognizing that advanced cyberattacks are pervasive and are not effectively prevented by legacy security solutions. High visibility attacks on prominent companies and governments have increased market awareness of advanced cyberattacks and help to provide an impetus for enterprises and governments to devote resources to protecting against advanced cyberattacks, which may include testing, purchasing and deploying our products. If advanced cyberattacks were to decline, or enterprises or governments perceived a decline in the general level of advanced cyberattacks, our ability to attract new channel partners and end-customers and expand our offerings within existing channel partners and end-customers could be materially and adversely affected. An actual or perceived reduction in the threat landscape could increase our sales cycles and harm our business, results of operations and financial condition.

Undetected software or hardware errors may harm our business and results of operations.

Our products may contain undetected errors or defects when first introduced or as new versions are released. We have experienced these errors or defects in the past in connection with new products and product upgrades. We expect that these errors or defects will be found from time to time in new or enhanced products after commencement of commercial distribution. These problems have in the past and may in the future cause us to incur significant warranty and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relations problems. We may also be subject to liability claims for damages related to product errors or defects. While we carry insurance policies covering this type of liability, these policies may not provide sufficient protection should a claim be asserted. A material product liability claim may harm our business and results of operations.

Any errors, defects or vulnerabilities in our products could result in:

- expenditures of significant financial and product development resources in efforts to analyze, correct, eliminate or work around errors and defects or to address and eliminate vulnerabilities;
- loss of existing or potential end-customers or distribution channel partners;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- indemnification obligations under our agreements with resellers, distributors and/or end-customers;
- an increase in warranty claims compared with our historical experience or an increased cost of servicing warranty claims, either of which would adversely affect our gross margin; and
- litigation, regulatory inquiries, or investigations that may be costly and harm our reputation.

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

We incorporate open source software such as the Linux operating system kernel into our products. We have implemented a formal open source use policy, including written guidelines for use of open source software and business processes for approval of that use. We have developed and implemented our open source policies according to industry practice; however, best practices in this area are subject to change, because there is little reported case law on the interpretation of material terms of many open source licenses. We are in the process of reviewing our open source use and our compliance with open source licenses and implementing remediation and changes necessary to comply with the open source licenses related thereto. We cannot guarantee that our use of open source software has been, and will be, managed effectively for our intended business purposes and/or compliant with applicable open source licenses. We may face legal action by third parties seeking to enforce their intellectual property rights related to our use of such open source software. Failure to adequately manage open source license compliance and our use of open source software may result in unanticipated obligations regarding our products and services, such as a requirement that we license proprietary portions of our products or services on unfavorable terms, that we make available source code for modifications or derivative works we created based upon, incorporating or using open source software, that we license such modifications or derivative works under the terms of the particular open source license and/or that we redesign the affected products or services, which could result, for example, in a loss of intellectual property rights, or delay in providing our products and services. From time to time, there have been claims against companies that distribute or use third-party open source software in their products and services, asserting that the open source software or its combination with the products or services infringes third parties' patents or copyrights, or that the companies' distribution or use of the open source software does not comply with the terms of the applicable open source licenses. Use of certain open source software can lead to greater risks than use of warranted third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of such open source software. From time to time, there have been claims against companies that use open source software in their products, challenging the ownership of rights in such open source software. As a result, we could also be subject to suits by parties claiming ownership of rights in what we believe to be open source software and so challenging our right to use such software in our products. If any such claims were asserted against us, we could be required to incur significant legal expenses defending against such a claim. Further, if our defenses to such a claim were not successful, we could be, for example, subject to significant damages, be required to seek licenses from third parties in order to continue offering our products and services without infringing such third party's intellectual property rights, be required to re-engineer such products and services, or be required to discontinue making available such products and services if re-engineering cannot be accomplished on a timely or successful basis. The need to engage in these or other remedies could increase our costs or otherwise adversely affect our business, operating results and financial condition.

Our products must interoperate with operating systems, software applications and hardware that are developed by others and if we are unable to devote the necessary resources to ensure that our products interoperate with such software and hardware, we may fail to increase, or we may lose market share and we may experience a weakening demand for our products.

Our products must interoperate with our end-customers' existing infrastructure, specifically their networks, servers, software and operating systems, which may be manufactured by a wide variety of vendors and original equipment manufacturers. As a result, when problems occur in a network, it may be difficult to identify the source of the problem. The occurrence of software or hardware problems, whether caused by our products or another vendor's products, may result in the delay or loss of market acceptance of our products. In addition, when new or updated versions of our end-customers' software operating systems or applications are introduced, we must sometimes develop updated versions of our software so that our products will interoperate properly. We may not accomplish these development efforts quickly, cost-effectively or at all. These development efforts require capital investment and the devotion of engineering resources. If we fail to maintain compatibility with these applications, our end-customers may not be able to adequately utilize our products, and we may, among other consequences, fail to increase, or we may lose market share and experience a weakening in demand for our products, which would adversely affect our business, operating results and financial condition.

We license technology from third parties, and our inability to maintain those licenses could harm our business.

Many of our products include proprietary technologies licensed from third parties. In the future, it may be necessary to renew licenses for third party technology or obtain new licenses for other technology. These third-party licenses may not be available to us on acceptable terms, if at all. As a result, we could also face delays or be unable to make changes to our products until equivalent technology can be identified, licensed or developed and integrated with our products. Such delays or an inability to make changes to our products, if it were to occur, could adversely affect our business, operating results and financial condition. The inability to obtain certain licenses to third-party technology, or litigation regarding the interpretation or enforcement of license agreements and related intellectual property issues, could have a material adverse effect on our business, operating results and financial condition.

Failure to prevent excess inventories or inventory shortages could result in decreased revenue and gross margin and harm our business.

We purchase products from our manufacturers outside of, and in advance of, reseller or end-customer orders, which we hold in inventory and sell. We place orders with our manufacturers based on our forecasts of our end-customers' requirements and forecasts provided by our distribution channel partners. These forecasts are based on multiple assumptions, each of which might cause our estimates to be inaccurate, affecting our ability to provide products to our customers. There is a risk we may be unable to sell excess products ordered from our manufacturers. Inventory levels in excess of customer demand may result in obsolete inventory and inventory write-downs. The sale of excess inventory at discounted prices could impair our brand image and have an adverse effect on our financial condition and results of operations. Conversely, if we underestimate demand for our products or if our manufacturers fail to supply products we require at the time we need them, we may experience inventory shortages. Inventory shortages might delay shipments to resellers, distributors and customers and cause us to lose sales. These shortages may diminish the loyalty of our distribution channel partners or customers.

The difficulty in forecasting demand also makes it difficult to estimate our future financial condition and results of operations from period to period. A failure to accurately predict the level of demand for our products could adversely affect our total revenue and net income, and we are unlikely to forecast such effects with any certainty in advance.

Our sales cycles can be long and unpredictable, primarily due to the complexity of our end-customers' networks and data centers and the length of their budget cycles. As a result, our sales and revenue are difficult to predict and may vary substantially from period to period, which may cause our operating results to fluctuate significantly.

The timing of our sales is difficult to predict because of the length and unpredictability of our products' sales cycles. A sales cycle is the period between initial contact with a prospective end-customer and any sale of our products. Our sales cycle, in particular to our large end-customers, may be lengthy due to the complexity of their networks and data centers. Because of this complexity, prospective end-customers generally consider a number of factors over an extended period of time before committing to purchase our products. End-customers often view the purchase of our products as a significant and strategic decision that can have important implications on their existing networks and data centers and, as a result, require considerable time to evaluate, test and qualify our products prior to making a purchase decision and placing an order to ensure that our products will successfully interoperate with our end-customers' complex network and data centers. Additionally, the budgetary decisions at these entities can be lengthy and require multiple organization reviews. The length of time that end-customers devote to their evaluation of our products and decision making process varies significantly. The length of our products' sales cycles typically ranges from three to 12 months but can be longer for our large end-customers. In addition, the length of our close or sales cycle can be affected by the extent to which customized features are requested, in particular in our large deals.

For all of these reasons, it is difficult to predict whether a sale will be completed or the particular fiscal period in which a sale will be completed, both of which contribute to the uncertainty of our future operating results. If our close or sales cycles lengthen, our revenue could be lower than expected, which would have an adverse impact on our operating results and could cause our stock price to decline.

Our ability to sell our products is highly dependent on the quality of our support and services offerings, and our failure to offer high-quality support could have a material adverse effect on our business, revenue and results of operations.

We believe that our ability to provide consistent, high quality customer service and technical support is a key factor in attracting and retaining end-customers of all sizes and is critical to the deployment of our products. When support is purchased our end-customers depend on our support organization to provide a broad range of support services, including on-site technical support, 24-hour support and shipment of replacement parts on an expedited basis. If our support organization or our distribution channel partners do not assist our end-customers in deploying our products effectively, succeed in helping our end-customers resolve post-deployment issues quickly, or provide ongoing support, it could adversely affect our ability to sell our products to existing end-customers and could harm our reputation with potential end-customers. We currently have technical support centers in the United States, Japan, China, India and the Netherlands. As we continue to expand our operations internationally, our support organization will face additional challenges, including those associated with delivering support, training and documentation in languages other than English.

We typically sell our products with maintenance and support as part of the initial purchase, and a substantial portion of our support revenue comes from renewals of maintenance and support contracts. Our end-customers have no obligation to renew their maintenance and support contracts after the expiration of the initial period. If we are unable to provide high quality support, our end-customers may elect not to renew their maintenance and support contracts or to reduce the product quantity under their maintenance and support contracts, thereby reducing our future revenue from maintenance and support contracts.

Our failure or the failure of our distribution channel partners to maintain high-quality support and services could have a material and adverse effect on our business, revenue and operating results.

We depend on growth in markets relating to network security, management and analysis, and lack of growth or contraction in one or more of these markets could have a material adverse effect on our results of operations and financial condition.

Demand for our products is linked to, among other things, growth in the size and complexity of network infrastructures and the demand for networking technologies addressing the security, management and analysis of such infrastructures. These markets are dynamic and evolving. Our future financial performance will depend in large part on continued growth in the number of organizations investing in their network infrastructure and the amount they commit to such investments. If this demand declines, our results of operations and financial condition would be materially and adversely affected. Segments of the network infrastructure industry have in the past experienced significant economic downturns. Furthermore, the market for network infrastructure may not continue to grow at historic rates, or at all. The occurrence of any of these factors in the markets relating to network security, management and analysis could materially and adversely affect our results of operations and financial condition.

Our revenue growth rate in recent periods may not be indicative of our future performance.

You should not consider our revenue growth rate in recent periods as indicative of our future performance. We have recently experienced revenue growth rates of 4%, 16% and 9% in 2017, 2016 and 2015 as compared to the same prior periods. We may not achieve similar revenue growth rates in future periods. You should not rely on our revenue for any prior quarterly or annual periods as any indication of our future revenue or revenue growth. If we are unable to maintain consistent revenue or revenue growth, our stock price could be volatile, and it may be difficult to achieve and maintain profitability.

Our business and operations have experienced rapid growth in certain prior periods and may experience rapid growth at certain times in the future, and if we do not effectively manage any future growth or are unable to improve our controls, systems and processes, our operating results will be adversely affected.

In certain recent periods, we have significantly increased the number of our employees and independent contractors. As we hire new employees and independent contractors and expand into new locations outside the United States, we are required to comply with varying local laws for each of these new locations. We anticipate that further expansion of our infrastructure and headcount will be required. Our growth has placed, and will continue to place, a significant strain on our administrative and operational infrastructure and financial resources. Our ability to manage our operations and growth across multiple countries will require us to continue to refine our operational, financial and management controls, human resource policies, and reporting systems and processes.

We need to continue to improve our internal systems, processes, and controls to effectively manage our operations and growth. We may not be able to successfully implement improvements to these systems, processes and controls in an efficient or timely manner. In addition, our systems and processes may not prevent or detect all errors, omissions or fraud. For example, as described in Item 9A, “Controls and Procedures,” of this Annual Report on Form 10-K, we recently identified material weaknesses in our internal control over financial reporting and concluded that our internal control over financial reporting and our disclosure controls and procedures were not effective as of December 31, 2017. We may experience difficulties in managing improvements to our systems, processes, and controls or in connection with third-party software, which could impair our ability to provide products or services to our customers in a timely manner, causing us to lose customers, limit us to smaller deployments of our products, increase our technical support costs, or damage our reputation and brand. Our failure to improve our systems and processes, or their failure to operate in the intended manner, may result in our inability to manage the growth of our business and to accurately forecast our revenue, expenses, and earnings, or to prevent certain losses, any of which may harm our business and results of operations.

We may not be able to sustain or develop new distributor and reseller relationships, and a reduction or delay in sales to significant distribution channel partners could hurt our business.

We sell our products and services through multiple distribution channels in the United States and internationally. We may not be able to increase our number of distributor or reseller relationships or maintain our existing relationships. Recruiting and retaining qualified distribution channel partners and training them on our technologies requires significant time and resources. These distribution channel partners may also market, sell and support products and services that are competitive with ours and may devote more resources to the marketing, sales and support of such competitive products. Our sales channel structure could subject us to lawsuits, potential liability and reputational harm if, for example, any of our distribution channel partners misrepresent the functionality of our products or services to end-customers or violate laws or our corporate policies. If we are unable to establish or maintain our sales channels or if our distribution channel partners are unable to adapt to our future sales focus and needs, our business and results of operations will be harmed.

The terms of the 2016 Credit Facility could restrict our operations, particularly our ability to respond to changes in our business or to take specified actions.

In November 2016, we entered into a loan and security agreement (the “2016 Credit Facility”) with Silicon Valley Bank (“SVB”), as the lender. The 2016 Credit Facility contains a number of restrictive covenants that impose operating and financial restrictions on us, including restrictions on our ability to take actions that may be in our best interests. The 2016 Credit

Facility requires us to satisfy specified covenants. As of the date of this filing, we had no outstanding balance under the 2016 Credit Facility and were in compliance with all covenants except for the annual audited financial statement with an unqualified opinion no later than 180 days after the last day of the fiscal year. However, SVB has granted a forbearance on this requirement through August 31, 2018. If we continue to remain in noncompliance, or fail to comply with these covenants in the future, SVB could elect to declare all amounts outstanding under the 2016 Credit Facility to be immediately due and payable and terminate all commitments to extend further credit. If SVB accelerates the repayment, if any, we may not have sufficient funds to repay our existing debt. If we were unable to repay those amounts, SVB could proceed against the collateral granted to it to secure such indebtedness. We have pledged substantially all of our assets, excluding our intellectual property, as collateral under the 2016 Credit Facility.

Our sales to governmental organizations are subject to a number of challenges and risks.

We sell to governmental organization end-customers. Sales to governmental organizations are subject to a number of challenges and risks. Selling to governmental organizations can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that these efforts will generate a sale. We have not yet received security clearance from the United States government, which prevents us from being able to sell directly for certain governmental uses. There can be no assurance that such clearance will be obtained, and failure to do so may adversely affect our operating results. Governmental organization demand and payment for our products may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our products. Governmental organizations may have statutory, contractual or other legal rights to terminate contracts with our distributors and resellers for convenience or due to a default, and any such termination may adversely impact our future operating results.

Failure to comply with governmental laws and regulations could harm our business.

Our business is subject to regulation by various federal, state, local and foreign governmental entities, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, product safety, environmental laws, consumer protection laws, anti-bribery laws, import/export controls, federal securities laws, and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, mandatory product recalls, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties or injunctions. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, operating results, and financial condition could be materially adversely affected. In addition, responding to any action will likely result in a significant diversion of management’s attention and resources and an increase in professional fees. Enforcement actions and sanctions could harm our business, operating results and financial condition.

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

Our products are subject to U.S. export controls and may be exported outside the United States only with the required level of export license or through an export license exception because we incorporate encryption technology into our products. In addition, various countries regulate the import of certain encryption technology and have enacted laws that could limit our ability to distribute our products or our end-customers’ ability to implement our products in those countries. Changes in our products or changes in export and import regulations may create delays in the introduction of our products in international markets, prevent our end-customers with international operations from deploying our products throughout their global systems or, in some cases, prevent the export or import of our products to certain countries altogether. Any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations or change in the countries, 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 end-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, operating results and financial condition.

We discovered that trial software was inadvertently available for download by any international user and, on limited occasions, was downloaded by individuals located in a U.S. sanctioned country. We implemented corrective actions and filed a Voluntary Self Disclosure in February 2017 with the U.S. Department of Commerce and U.S. Department of Treasury regarding these technical violations. Both agencies closed their review without any fines or penalties.

We are subject to various environmental laws and regulations that could impose substantial costs upon us.

Our company must comply with local, state, federal, and international environmental laws and regulations in the countries in which we do business. We are also subject to laws, which restrict certain hazardous substances, including lead, used in the construction of our products, such as the European Union Restriction on the Use of Hazardous Substances in electrical and electronic equipment directive. We are also subject to the European Union Directive, known as the Waste Electrical and Electronic Equipment Directive ("WEEE Directive"), which requires producers of certain electrical and electronic equipment to properly label products, register as a WEEE producer, and provide for the collection, disposal and recycling of waste electronic products. Failure to comply with these environmental directives and other environmental laws could result in the imposition of fines and penalties, inability to sell covered products in certain countries, the loss of revenue, or subject us to third-party property damage or personal injury claims, or require us to incur investigation, remediation or engineering costs. Our operations and products will be affected by future environmental laws and regulations, but we cannot predict the ultimate impact of any such future laws and regulations at this time.

Our products must conform to industry standards in order to be accepted by end-customers in our markets.

Generally, our products comprise only a part of a data center. The servers, network, software and other components and systems of a data center must comply with established industry standards in order to interoperate and function efficiently together. We depend on companies that provide other components of the servers and systems in a data center to support prevailing industry standards. Often, these companies are significantly larger and more influential in driving industry standards than we are. Some industry standards may not be widely adopted or implemented uniformly, and competing standards may emerge that may be preferred by our end-customers. If larger companies do not support the same industry standards that we do, or if competing standards emerge, market acceptance of our products could be adversely affected and we may need to incur substantial costs to conform our products to such standards, which could harm our business, operating results and financial condition.

We are dependent on various information technology systems, and failures of or interruptions to those systems could harm our business.

Many of our business processes depend upon our information technology systems, the systems and processes of third parties, and on interfaces with the systems of third parties. If those systems fail or are interrupted, or if our ability to connect to or interact with one or more networks is interrupted, our processes may function at a diminished level or not at all. This could harm our ability to ship or support our products, and our financial results may be harmed.

In addition, reconfiguring or upgrading our information technology systems or other business processes in response to changing business needs may be time-consuming and costly and is subject to risks of delay or failed deployment. To the extent this impacts our ability to react timely to specific market or business opportunities, our financial results may be harmed.

Future acquisitions we may undertake may not result in the financial and strategic goals that are contemplated at the time of the transaction.

We completed the acquisition of substantially all of the assets of Appcito in June 2016 and may make future acquisitions of complementary companies, products or technologies. With respect to the Appcito acquisition or any other future acquisitions we may undertake, we may find that the acquired businesses, products or technologies do not further our business strategy as expected, that we paid more than what the assets are later worth or that economic conditions change, all of which may generate future impairment charges. The Appcito acquisition or any future acquisitions may be viewed negatively by customers, financial markets or investors. There may be difficulty integrating the operations and personnel of an acquired business, and we may have difficulty retaining the key personnel of an acquired business. We may have difficulty in integrating acquired technologies or products with our existing product lines. Any integration process may require significant time and resources, and we may not be able to manage the process successfully. Our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically and culturally diverse locations. We may have difficulty maintaining uniform standards, controls, procedures and policies across locations. We may experience significant problems or liabilities associated with product quality, technology and other matters.

Our inability to successfully operate and integrate future acquisitions appropriately, effectively and in a timely manner, or to retain key personnel of any acquired business, could have a material adverse effect on our revenue, gross margin and expenses.

Our ability to use our net operating loss carryforwards may be subject to limitation and may result in increased future tax liability to us.

Generally, a change of more than 50% in the ownership of a corporation's stock, by value, over a three-year period constitutes an ownership change for U.S. federal income tax purposes. An ownership change may limit a company's ability to use its net operating loss carryforwards attributable to the period prior to such change. In the event we have undergone an ownership change under Section 382 of the Internal Revenue Code, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may become subject to limitations, which could potentially result in increased future tax liability to us.

Changes in tax laws or regulations or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our operating results and financial condition.

We are subject to income taxes in the United States and various foreign jurisdictions, and our domestic and international tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of tax valuation allowances;
- expiration of, or detrimental changes in, research and development tax credit laws;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings;
- changes in tax laws, regulations, accounting principles or interpretations thereof;
- future earnings being lower than anticipated in countries where we have lower statutory tax rates and higher than anticipated earnings in countries where we have higher statutory tax rates; or
- examinations by US federal, state or foreign jurisdictions that disagree with interpretations of tax rules and regulations in regards to positions taken on tax filings, including the current examination by the Internal Revenue Service of our 2015 and 2014 tax returns.

As our business grows, we are required to comply with increasingly complex taxation rules and practices. We are subject to tax in multiple U.S. tax jurisdictions and in foreign tax jurisdictions as we expand internationally. The development of our tax strategies requires additional expertise and may impact how we conduct our business. Our future effective tax rates could be unfavorably affected by changes in, or interpretations of, tax rules and regulations in the jurisdictions in which we do business or changes in the valuation of our deferred tax assets and liabilities. Furthermore, we provide for certain tax liabilities that involve significant judgment. We are subject to the examination of our tax returns by federal, state and foreign tax authorities, which could focus on our intercompany transfer pricing methodology as well as other matters. If our tax strategies are ineffective or we are not in compliance with domestic and international tax laws, our financial position, operating results and cash flows could be adversely affected.

In addition, from time to time the United States, foreign and state governments make substantive changes to tax rules and the application of rules to companies. For example, the Tax Act creates a new requirement that certain income (i.e., Global Intangible Low-Taxed Income , or GILTI) earned by controlled foreign corporations ("CFCs") must be included currently in the gross income of the CFCs' U.S. shareholder. We are still evaluating the tax provisions related to GILTI and we have not made a policy election on how to account for the GILTI provisions of the Tax Act as allowed by the U.S. generally accepted accounting standards. Our selection of an accounting policy with respect to the new GILTI tax rules will depend, in part, on analyzing our global income to determine whether we expect to have future U.S. inclusions in taxable income related to GILTI and, if so, what is the anticipated impact.

We are exposed to the credit risk of our distribution channel partners and end-customers, which could result in material losses and negatively impact our operating results.

Most of our sales are on an open credit basis, with typical payment terms ranging from 30 to 90 days depending on local customs or conditions that exist in the sale location. If any of the distribution channel partners or end-customers responsible for a significant portion of our revenue becomes insolvent or suffers a deterioration in its financial or business condition and is unable to pay for our products, our results of operations could be harmed.

Our reported financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

Generally accepted accounting principles ("GAAP") in the United States are subject to interpretation by the Financial Accounting Standards Board ("FASB"), the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results, and could affect the reporting of transactions completed before the announcement of a change. For example, in May 2014, the FASB issued accounting standards update No. 2014-09 (Topic 606), Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. We will adopt Topic 606 effective January 1, 2018, applying the modified retrospective method to all contracts that were not completed as of January 1, 2018. This or other changes in accounting principles could adversely affect our financial results. See Note 1 of our Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K regarding the effect of new accounting pronouncements on our financial statements. Any difficulties in implementing these pronouncements could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us.

Concentration of ownership among our existing executive officers, a small number of stockholders, directors and their affiliates may prevent new investors from influencing significant corporate decisions.

Our executive officers and directors, together with affiliated entities, own 39.0% of our outstanding common stock as of December 31, 2017. Accordingly, these stockholders, acting together, have significant influence over the election of our directors, over whether matters requiring stockholder approval are approved or disapproved and over our affairs in general. The interests of these stockholders could conflict with your interests. These stockholders may also have an interest in pursuing acquisitions, divestitures, financings or other transactions that, in their judgment, could enhance their investments, even though such transactions might involve risks to you. In addition, this concentration of ownership could have the effect of delaying or preventing a liquidity event such as a merger or liquidation of our company.

Certain stockholders could attempt to influence changes at the Company, which could adversely affect our operations, financial condition and the value of our common stock.

Our stockholders may from time-to-time seek to acquire a controlling stake in us, engage in proxy solicitations, advance stockholder proposals or otherwise attempt to effect changes. Campaigns by stockholders to effect changes at publicly-traded companies are sometimes led by investors seeking to increase short-term stockholder value through actions such as financial restructuring, increased debt, special dividends, stock repurchases or sales of assets or the entire company. Responding to proxy contests and other actions by activist stockholders can be costly and time-consuming, and could disrupt our operations and divert the attention of our board of directors and senior management from the pursuit of our business strategies. These actions could adversely affect our operations, financial condition and the value of our common stock.

We may need to raise additional funds in future private or public offerings, and such funds may not be available on acceptable terms, if at all. If we do raise additional funds, existing stockholders will suffer dilution.

We may need to raise additional funds in private or public offerings, and these funds may not be available to us when we need them or on acceptable terms, if at all. If we raise additional funds through further issuances of equity or convertible debt securities, you could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of our then-existing capital stock. Any debt financing secured by us 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. If we cannot raise additional funds when we need them, our business and prospects could fail or be materially and adversely affected.

The price of our common stock has been and may continue to be volatile, and the value of your investment could decline.

Technology stocks have historically experienced high levels of volatility. The trading price of our common stock has been and is likely to continue to be volatile and subject to fluctuations in response to many factors, some of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose all or part of your investment in our common stock. Factors that could cause fluctuations in the trading price of our common stock include the following:

- announcements of new products, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;

- price and volume fluctuations in the overall stock market from time to time;
- significant volatility in the market price and trading volume of technology companies in general and of companies in our industry;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes or fluctuations in our results of operations;
- whether our results of operations meet the expectations of securities analysts or investors;
- actual or anticipated changes in the expectations of investors or securities analysts;
- litigation or investigations involving us, our industry, or both;
- regulatory developments in the United States, foreign countries or both;
- general economic conditions and trends;
- major catastrophic events;
- sales of large blocks of our common stock; or
- departures of key personnel.

In addition, if the market for technology stocks or the stock market in general experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, results of operations or financial condition. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. The price of our common stock has been highly volatile since our initial public offering ("IPO") in March 2014. In January 2015, several substantially identical putative class action lawsuits alleging violations of securities laws were filed against us, our directors and certain of our executive officers and in June 2015, a related shareholder derivative action was filed. The consolidated securities class actions and the derivative action were settled in 2016 and dismissed in the first quarter of 2017. In March 2018, a putative class action lawsuit alleging violations of securities laws was filed against us and certain of our current and former executive officers, and in May 2018, a related shareholder derivative action was filed. In March 2018, the United States Securities and Exchange Commission began a private investigation into any securities laws violations by us or persons currently or formerly affiliated with us. Current or future securities litigation, including any related shareholder derivative litigation or investigation, could result in substantial costs and divert our management's attention and resources from our business. This could have a material adverse effect on our business, results of operations and financial condition.

Sales of substantial amounts of our common stock in the public markets, or the perception that such sales might occur, could reduce the price that our common stock might otherwise attain and may dilute your voting power and your ownership interest in us.

Sales of a substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could adversely affect the market price of our common stock and may make it more difficult for you to sell your common stock at a time and price that you deem appropriate. As of December 31, 2017, there were approximately 5.0 million vested and exercisable options to purchase our common stock, in addition to the 71.7 million common shares outstanding as of such date. All outstanding shares and all shares issuable upon exercise of outstanding and vested options are freely tradable, subject in some cases to volume and other restrictions of Rules 144 and 701 under the Securities Act, as well as our insider trading policy. In addition, holders of certain shares of our outstanding common stock, including an aggregate of 9.5 million shares held by funds affiliated with Summit Partners, L.P. as of December 31, 2017 are entitled to rights with respect to registration of these shares under the Securities Act pursuant to an investors' rights agreement.

If these holders of our common stock, by exercising their registration rights, sell a large number of shares, they could adversely affect the market price for our common stock. If we file a registration statement for the purposes of selling additional shares to raise capital and are required to include shares held by these holders pursuant to the exercise of their registration rights, our ability to raise capital may be impaired. Sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could cause the market price of our common stock to decline.

We are an emerging growth company, and any decision on our part to comply only with certain reduced disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.

We are an emerging growth company, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies," including, but not limited to, not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years following the completion of our initial public offering. We will remain an emerging growth company until the earliest of: (a) the last day of the year (i) following the fifth anniversary of the completion of the initial public offering, (ii) in which we have total annual gross revenue of at least $1.0 billion, or (iii) in which we qualify as a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30, or (b) the date on which we have issued more than $1.07 billion in non-convertible debt securities during the prior three-year period. We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. If some investors find our common stock less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our common stock and the price of our common stock may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this accommodation allowing for delayed adoption of new or revised accounting standards, and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We are obligated to implement and maintain effective internal control over financial reporting. As of December 31, 2017, we concluded that our internal control over financial reporting and our disclosure controls and procedures were not effective. In the future, we may again not complete our analysis of our internal control over financial reporting in a timely manner, or our internal control over financial reporting may not be determined to be effective, or we may discover significant deficiencies or material weaknesses in our internal control over financial reporting, all of which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We are required, pursuant to the Exchange Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting for each fiscal year. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting.

We have, in the past, experienced and are currently experiencing issues with our internal control over financial reporting. We have discovered and it is possible that we may discover in the future significant deficiencies or material weaknesses in our internal control over financial reporting. Current significant deficiencies and material weaknesses have resulted in a restatement of certain of our financial reports, as described in Item 9A, "Controls and Procedures," of this Annual Report on Form 10-K. If, in any future reporting periods, we are unable to conclude that our internal control over financial reporting is effective, or if we are required to restate our financial statements as a result of ineffective internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our common stock to decline.

We are required to disclose material changes made in our internal control and procedures on a quarterly basis. However, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act until the year following the date we are no longer an emerging growth company as defined in the JOBS Act, if we take advantage of the exemptions contained in the JOBS Act. To comply with these requirements, we may need to undertake various actions, such as implementing new internal controls and procedures and hiring accounting or internal audit staff.

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

The market for our common stock, to some extent, depends on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us should downgrade our shares or change their opinion of our shares, our share price would likely decline. If one or more of these analysts should cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which would cause our share price or trading volume to decline.

Our charter documents and Delaware law could discourage takeover attempts and lead to management entrenchment.

Our restated certificate of incorporation and bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors; provided, that at the 2018 annual meeting of stockholders, our stockholders will be voting on a proposal to declassify our board of directors;

- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preference and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;

- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;

- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;

- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, our Chief Executive Officer, our secretary, or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;

- the requirement for the affirmative vote of holders of at least 66-2/3% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our restated certificate of incorporation relating to the issuance of preferred stock and management of our business or our bylaws, which may inhibit the ability of an acquirer to effect such amendments to facilitate an unsolicited takeover attempt;

- the ability of our board of directors, by majority vote, to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt; and

- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time.

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

A significant natural disaster, such as an earthquake, fire, a flood, or significant power outage could have a material adverse impact on our business, operating results, and financial condition. Our corporate headquarters are located in the San Francisco Bay Area, a region known for seismic activity. In addition, our two primary manufacturers are located in Taiwan, which is near major earthquake fault lines and subject to typhoons during certain times of the year. In the event of a major earthquake or typhoon, or other natural or man-made disaster, our manufacturers in Taiwan may face business interruptions, which may impact quality assurance, product costs, and product supply and timing. In the event our or our service providers' information technology systems or manufacturing or logistics abilities are hindered by any of the events discussed above, shipments could be delayed, resulting in missed financial targets, such as revenue and shipment targets, and our operations could be disrupted, for the affected quarter or quarters. In addition, cyber security attacks, acts of war or terrorism, or other geo-political unrest could cause disruptions in our business or the business of our supply chain, manufacturers, logistics providers, partners, or end-customers or the economy as a whole. Any disruption in the business of our supply chain, manufacturers, logistics providers, partners or end-customers that impacts sales at the end of a quarter could have a significant adverse impact on our quarterly results. All of the aforementioned risks may be further increased if the disaster recovery plans for us and our suppliers prove to be inadequate. To the extent that any of the above should result in delays or cancellations of customer orders, or the delay in the manufacture, deployment or shipment of our products, our business, financial condition and operating results would be adversely affected.

We do not intend to pay dividends for the foreseeable future.

We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. In addition, the 2016 Credit Facility currently restricts our ability to pay cash dividends while this facility remains outstanding. As a result, you may only receive a return on your investment in our common stock if the value of our common stock increases.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our corporate headquarters is located in San Jose, California, where we currently lease 79,803 square feet of space under a lease agreement that expires in February 2020. We also lease space for offices internationally and for sales offices in locations throughout the United States and various international locations, including, among others, China, Japan, the United Kingdom, the Netherlands, Taiwan, Korea, Singapore and India. We believe that our current facilities are adequate to meet our current needs. We intend to expand our facilities or add new facilities as we add employees and enter new geographic markets. We believe that alternative or additional space suitable for our requirements will be available as needed to accommodate ongoing operations and any such growth. We do however expect to incur additional expenses in connection with any such new or expanded facilities.

ITEM 3. LEGAL PROCEEDINGS

We have been and may currently be involved in various legal proceedings, the outcomes of which are not within our complete control or may not be known for prolonged periods of time. Management is required to assess the probability of loss and amount of such loss, if any, in preparing our consolidated financial statements. We evaluate the likelihood of a potential loss from legal proceedings to which we are a party. We record a liability for such claims when a loss is deemed probable and the amount can be reasonably estimated. Significant judgment may be required in the determination of both probability and whether an exposure is reasonably estimable. Our judgments are subjective based on the status of the legal proceedings, the merits of our defenses and consultation with in-house and outside legal counsel. As additional information becomes available, we reassess the potential liability related to pending claims and may revise our estimates. Due to the inherent uncertainties of the legal processes in the multiple jurisdictions in which we operate, our judgments may be materially different than the actual outcomes, which could have material adverse effects on our business, financial conditions and results of operations.

Additional information with respect to this Item may be found in Note 6. Commitments and Contingencies, in the notes to consolidated financial statements of this Annual Report on Form 10-K, which is incorporated by reference.

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 quoted on the New York Stock Exchange (“NYSE”) under the symbol “ATEN” since March 21, 2014. Prior to that time, there was no public market for our stock. The following table sets forth the high and low closing sales price per share of our common stock for the periods indicated.

	Fiscal Year 2017 Quarter Ended				Fiscal Year 2016 Quarter Ended			
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Low	$7.72	$7.90	$ 6.08	$ 7.20	$4.92	$5.74	$ 6.52	$ 7.44
High	$9.78	$9.55	$ 8.25	$ 8.14	$6.61	$6.92	$ 10.69	$ 10.77

There were approximately 137 stockholders of record on August 24, 2018. Because many shares of our common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these holders of record.

Dividends

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings, if any, and do not anticipate paying any cash 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 earnings, capital requirements, any contractual limitations and overall financial conditions.

Company Stock Performance

The following graph compares the cumulative total return on our common stock, the NASDAQ Composite Index and the Russell 1000 Index. The graph assumes $100 was invested on March 21, 2014 in our common stock and each index and all dividends were reinvested. The historic stock price performance is not necessarily indicative of future stock price performance.

	3/21/14	12/31/14	12/31/15	12/31/16	12/31/17
A10 Networks, Inc.	$100.00	$26.90	$40.47	$51.26	$47.62
NASDAQ Composite	$100.00	$110.74	$117.08	$125.87	$161.42
Russell 1000	$100.00	$109.61	$108.41	$118.92	$141.93

Issuer Purchases of Equity Securities

On October 23, 2017, our board of directors authorized a share repurchase program for up to $20.0 million of our common stock over 12 months. Under the repurchase authorization, shares may be purchased from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases, privately negotiated transactions or other means. The repurchase authorization may be commenced, suspended or discontinued at any time at our discretion. No shares were repurchased under this program as of December 31, 2017.

Unregistered Sales of Equity Securities

None.

ITEM 6. SELECTED FINANCIAL DATA

We have derived the consolidated statement of operations and the consolidated balance sheet data for the fiscal years 2017, 2016 and 2015 from the consolidated audited financial statements included in Part II, Item 8 included in this Annual Report on Form 10-K. The consolidated statement of operations and the consolidated balance sheet data for the fiscal years 2014 and 2013 were derived from the consolidated audited financial statements that are not included in this Annual Report on Form 10-K. As our historical operating results are not necessarily indicative of future operating results, these selected consolidated financial data should be read in conjunction with the consolidated financial statements and accompanying notes in Part II, Item 8, and Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7 included in this Annual Report on Form 10-K.

As discussed in Note 2 - Restatement of Previously Issued Consolidated Financial Statements in Part II, Item 8 of this Form 10-K, we have restated our audited financial statements as of and for the years ended December 31, 2016 and 2015.

	Years Ended December 31,				
	2017	2016 (Restated)	2015 (Restated)	2014	2013
	(in thousands, except per share amounts)				
Consolidated Statement of Operations Data:					
Revenue	$235,429	$227,297	$196,285	$179,507	$141,738
Cost of revenue	$53,318	$54,413	$48,402	$42,937	$33,396
Gross profit	$182,111	$172,884	$147,883	$136,570	$108,342
Loss from operations	$(10,372)	$(20,570)	$(40,309)	$(30,271)	$(22,843)
Net loss attributable to common stockholders	$(10,751)	$(22,391)	$(41,897)	$(35,870)	$(29,078)
Net loss per share attributable to common stockholders - basic and diluted	$(0.15)	$(0.34)	$(0.67)	$(0.74)	$(3.14)
Weighted-average shares used in computing net loss per share attributable to common stockholders - basic and diluted	70,053	65,701	62,428	48,682	9,262
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$131,134	$114,347	$98,117	$91,905	$20,793
Working capital	$111,076	$95,285	$89,550	$100,656	$15,122
Total assets	$224,858	$216,733	$189,892	$186,980	$93,794
Total debt	$—	$—	$—	$—	$20,000
Deferred revenue, net (current and non-current)	$94,637	$91,617	$72,008	$57,220	$41,232
Redeemable convertible preferred stock	$—	$—	$—	$—	$81,426
Convertible preferred stock	$—	$—	$—	$—	$44,749
Total stockholders' equity (deficit)	$98,386	$82,752	$78,205	$96,565	$(134,880)

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 the consolidated financial statements and notes thereto included in Part II, Item 8 of this Form 10-K. In addition to historical information, the discussion below contains certain forward looking statements that involve risks and uncertainties. These forward-looking statements include, but are not limited to, those matters discussed under the heading "Forward-looking Statements." Our actual results could differ materially from those anticipated by these forward looking statements due to various factors, including, but not limited to, those set forth under Item 1A. Risk Factors of this Form 10-K and elsewhere in this document.

Restatement

Management's Discussion and Analysis of Financial Condition and Results of Operations have been updated to reflect the effects of the restatement described in Note - 2 Restatement of Previously Issued Consolidated Financial Statements to our audited consolidated financial statements in Part II, Item 8 included in this Annual Report on Form 10-K.

Overview

We are a leading provider of secure application solutions and services that enable a new generation of intelligently connected companies with the ability to continuously improve cyber protection and digital responsiveness across dynamic IT and network infrastructures. Our portfolio of software and hardware solutions combines industry-leading performance and scale with advanced intelligent automation, machine learning, data driven analytics, and threat intelligence to ensure security and availability of customer applications across their multi-cloud networks, including on-premise, private and public clouds.

Our product portfolio seeks to address many of the aforementioned challenges and solution requirements. The portfolio consists of six secure application solutions; Thunder ADC, Lightning ADC, Thunder CGN, Thunder TPS, Thunder SSLi and Thunder CFW and intelligent management, and automation tools; Harmony Controller and aGalaxy. Our products are offered in a variety of form factors and payment models, including physical appliances and software licenses, as well as pay-as-you-go licensing models and FlexPool, a flexible consumption-based software model.

We derive revenue from sales of products and related support services. Products revenue is generated primarily by sales of hardware appliances with perpetual licenses to our embedded software solutions. We also derive revenue from licenses to, or subscription services for, software-only versions of our solutions. We generate services revenue primarily from sales of maintenance and support contracts. Our customers predominantly purchase maintenance and support in conjunction with purchases of our products. In addition, we also derive revenue from the sale of professional services.

We sell our products globally to service providers and enterprises that depend on data center applications and networks to generate revenue and manage operations efficiently. Our end-customers operate in a variety of industries, including telecommunications, technology, industrial, retail, financial, gaming, education and government. Since inception, our customer base has grown rapidly. As of December 31, 2017, we had sold products to approximately 6,200 customers across 83 countries.

We sell substantially all of our solutions through our high-touch sales organization as well as distribution channel partners, including distributors, value-added resellers and system integrators, and fulfill nearly all orders globally through such partners. We believe this sales approach allows us to obtain the benefits of channel distribution, such as expanding our market coverage, while still maintaining face-to-face relationships with our end-customers. We outsource the manufacturing of our hardware products to original design manufacturers. We perform quality assurance and testing at our San Jose, Taiwan and Japan distribution centers, as well as at our manufacturers' locations.

During the year ended December 31, 2017, 49% of our total revenue was generated from the United States, 22% from Japan and 29% from other geographical regions. During the year ended December 31, 2016, 51% of our total revenue was generated from the United States, 23% from Japan and 26% from other geographical regions. During 2015, 54% of our total revenue was generated from the United States, 18% from Japan and 28% from other geographical regions.

As a result of the nature of our target market and the current stage of our development, a substantial portion of our revenue comes from a limited number of large customers, including service providers, in any period. During the years ended December 31, 2017, 2016 and 2015, purchases from our ten largest end-customers accounted for 35%, 36% and 32% of our total revenue, respectively. Sales to these large end-customers have typically been characterized by large but irregular purchases with long sales cycles. The timing of these purchases and the delivery of the purchased products are difficult to

predict. As a consequence, any acceleration or delay in anticipated product purchases by or deliveries to our largest customers could materially impact our revenue and operating results in any quarterly period. This may cause our quarterly revenue and operating results to fluctuate from quarter to quarter and make them difficult to predict.
We had $46.6 million of cash and cash equivalents and $84.6 million of marketable securities as of December 31, 2017. Cash generated by operating activities was $14.3 million in 2017 as compared to $18.8 million in 2016.

We intend to continue to invest for long-term growth. We have invested and expect to continue to invest in our product development efforts to deliver new products and additional features in our current products to address customer needs. In addition, we may expand our global sales and marketing organizations, expand our distribution channel partner programs and increase awareness of our solutions on a global basis. Additionally, we will be investing in general and administrative resources to meet the requirements to operate as a public company. Our investments in growth in these areas may affect our short-term profitability.

Results of Operations

A summary of our consolidated statements of operations for the years ended December 31, 2017, 2016 and 2015 is as follows (dollars in thousands):

	Years Ended December 31,					
	2017		2016		Change	
	Amount	Percentage of Total Revenue	Amount	Percentage of Total Revenue	Amount	Percent
Revenue:						
Products	$149,903	63.7 %	$152,308	67.0 %	$(2,405)	(1.6)%
Services	85,526	36.3	74,989	33.0	10,537	14.1 %
Total revenue	235,429	100.0	227,297	100.0	8,132	3.6 %
Cost of revenue:						
Products	36,269	15.4	37,520	16.5	(1,251)	(3.3)%
Services	17,049	7.2	16,893	7.4	156	0.9 %
Total cost of revenue	53,318	22.6	54,413	23.9	(1,095)	(2.0)%
Gross profit	182,111	77.4	172,884	76.1	9,227	5.3 %
Operating expenses:						
Sales and marketing	101,360	43.1	104,360	45.9	(3,000)	(2.9)%
Research and development	62,991	26.8	60,700	26.7	2,291	3.8 %
General and administrative	28,132	11.9	26,305	11.6	1,827	6.9 %
Litigation and settlement expense	—	—	2,089	0.9	(2,089)	(100.0)%
Total operating expenses	192,483	81.8	193,454	85.1	(971)	(0.5)%
Loss from operations	(10,372)	(4.4)	(20,570)	(9.0)	10,198	49.6 %
Non-operating income (expense):						
Interest expense	(162)	—	(424)	(0.2)	262	61.8 %
Interest and other income (expense), net	989	0.3	(640)	(0.3)	1,629	254.5 %
Total non-operating income (expense), net	827	0.3	(1,064)	(0.5)	1,891	177.7 %
Loss before income taxes	(9,545)	(4.1)	(21,634)	(9.5)	12,089	55.9 %
Provision for income taxes	1,206	0.5	757	0.4	449	59.3 %
Net loss	$(10,751)	(4.6)%	$(22,391)	(9.9)%	$11,640	52.0 %

	Years Ended December 31,											
	2016				2015				Change			
	Amount		Percentage of Total Revenue		Amount		Percentage of Total Revenue		Amount		Percent	
Revenue:												
Products	$152,308		67.0	%	$134,931		68.7	%	$17,377		12.9	%
Services	74,989		33.0		61,354		31.3		13,635		22.2	%
Total revenue	227,297		100.0		196,285		100.0		31,012		15.8	%
Cost of revenue:												
Products	37,520		16.5		32,763		16.7		4,757		14.5	%
Services	16,893		7.4		15,639		8.0		1,254		8.0	%
Total cost of revenue	54,413		23.9		48,402		24.7		6,011		12.4	%
Gross profit	172,884		76.1		147,883		75.3		25,001		16.9	%
Operating expenses:												
Sales and marketing	104,360		45.9		104,531		53.2		(171	)	(0.2	)%
Research and development	60,700		26.7		54,843		27.9		5,857		10.7	%
General and administrative	26,305		11.6		26,614		13.6		(309	)	(1.2	)%
Litigation and settlement expense	2,089		0.9		2,204		1.1		(115	)	(5.2	)%
Total operating expenses	193,454		85.1		188,192		95.8		5,262		2.8	%
Loss from operations	(20,570	)	(9.0	)	(40,309	)	(20.5	)	19,739		49.0	%
Non-operating income (expense):												
Interest expense	(424	)	(0.2	)	(509	)	(0.3	)	85		16.7	%
Interest and other income (expense), net	(640	)	(0.3	)	(332	)	(0.2	)	(308	)	(92.8	)%
Total non-operating income (expense), net	(1,064	)	(0.5	)	(841	)	(0.5	)	(223	)	(26.5	)%
Loss before income taxes	(21,634	)	(9.5	)	(41,150	)	(21.0	)	19,516		47.4	%
Provision for income taxes	757		0.4		747		0.3		10		1.3	%
Net loss	$(22,391	)	(9.9	)%	$(41,897	)	(21.3	)%	$19,506		46.6	%

Revenue

Our products revenue primarily consists of revenue from sales of our hardware appliances upon which our software is installed. Such software includes our ACOS software platform plus one of our ADC, CGN, TPS, SSLi or CFW solutions. Purchase of a hardware appliance includes a perpetual license to the included software. We recognize products revenue at the time of shipment, provided that all other revenue recognition criteria have been met. As a percentage of revenue, our products revenue may vary from quarter to quarter based on, among other things, the timing of orders and delivery of products, cyclicality and seasonality, changes in currency exchange rates and the impact of significant transactions with unique terms and conditions.

We generate services revenue from sales of post contract support (“PCS”), which is bundled with sales of products and professional services. We offer tiered PCS services under renewable, fee-based PCS contracts, primarily including technical support, hardware repair and replacement parts, and software upgrades on a when-and-if-released basis. We recognize services revenue ratably over the term of the PCS contract, which is typically one year, but can be up to five years.

A summary of our total revenue is as follows (dollars in thousands):

	Years Ended December 31,		Change	
	2017	2016	Amount	Percent
Revenue:				
Products	$149,903	$152,308	$(2,405)	(2)%
Services	85,526	74,989	10,537	14 %
Total revenue	$235,429	$227,297	$8,132	4 %
Revenue by geographic location:				
United States	$115,536	$115,706	$(170)	— %
Japan	51,488	52,951	(1,463)	(3)%
Asia Pacific, excluding Japan	33,189	29,829	3,360	11 %
EMEA	27,859	23,669	4,190	18 %
Other	7,357	5,142	2,215	43 %
Total revenue	$235,429	$227,297	$8,132	4 %

	Years Ended December 31,		Net Change	
	2016	2015	Amount	Percent
Revenue:				
Products	$152,308	$134,931	$17,377	13 %
Services	74,989	61,354	13,635	22 %
Total revenue	$227,297	$196,285	$31,012	16 %
Revenue by geographic location:				
United States	$115,706	$105,340	$10,366	10 %
Japan	52,951	35,636	17,315	49 %
Asia Pacific, excluding Japan	29,829	23,847	5,982	25 %
EMEA	23,669	26,025	(2,356)	(9)%
Other	5,142	5,437	(295)	(5)%
Total revenue	$227,297	$196,285	$31,012	16 %

2017 Revenue Compared to 2016 Revenue

Total revenue increased $8.1 million, or 4%, in 2017 as compared to 2016, due to a $10.5 million increase in services revenue, partially offset by a $2.4 million decrease in products revenue. Revenue from service provider and enterprise customers increased 11% and decreased 2%, respectively, in 2017 as compared to 2016.

Products revenue decreased $2.4 million, or 2%, in 2017 as compared to 2016, which is primarily attributable to decreases from the United States and Japan, partially offset by increases from EMEA and Asia Pacific excluding Japan. Products revenue from service provider and enterprise customers increased 11% and decreased 11%, respectively, in 2017 as compared to 2016.

Services revenue increased $10.5 million, or 14%, in 2017 as compared to 2016, which is primarily attributable to the increase in PCS sales in connection with our increased installed customer base. During 2017, services revenue recognized from our installed customer base with contracts existing at the beginning of the year grew by 19% as compared to the same measure in 2016. Services revenue from service provider and enterprise customers increased 11% and 16%, respectively, in 2017 as compared to 2016.

During 2017, $115.5 million, or 49%, of total revenue was generated from the United States, which remained relatively constant as compared to 2016. The decrease in products revenue was partially offset by higher services revenue attributable to the increase PCS sales in connection with our increased installed customer base.

During 2017, $51.5 million, or 22%, of total revenue was generated from Japan, which represents a 3% decrease in revenue as compared to 2016. The decrease in products revenue was partially offset by higher services revenue attributable to the increase PCS sales in connection with our increased installed customer base.

During 2017, $33.2 million, or 14%, of total revenue was generated from the Asia Pacific regions excluding Japan, which represents a 11% increase in revenue as compared to 2016. The increase was due to higher products revenue and higher services revenue from PCS sales in connection with our increased installed customer base.

During 2017, $27.9 million, or 12%, of total revenue was generated from EMEA, which represents a 18% increase in revenue as compared to 2016. The increase was due to higher products revenue and higher services revenue from PCS sales in connection with our increased installed customer base.

2016 Revenue Compared to 2015 Revenue

Total revenue increased $31.0 million, or 16% , in 2016 as compared to 2015, which consisted of a $17.4 million increase in products revenue and a $13.6 million increase in services revenue. Revenue from service provider and enterprise customers increased 11% and 20%, respectively, in 2016 as compared to 2015.

Products revenue increased $17.4 million, or 13% , in 2016 as compared to 2015, which is primarily attributable to increases from the United States, Japan and Asia Pacific excluding Japan, partially offset by a decrease from EMEA. Products revenue from service provider and enterprise customers increased 6% and 18%, respectively, in 2016 as compared to 2015.

Services revenue increased $13.6 million, or 22%, in 2016 as compared to 2015, which is primarily attributable to the increase in PCS sales in connection with our increasing installed customer base as well as an increase in our professional services and product-based subscription revenue. During 2016, services revenue recognized from our installed customer base with contracts existing at the beginning of the year grew by 28% as compared to the same measure in 2015. Services revenue from service provider and enterprise customers increased 22% each, in 2016 as compared to 2015.

During 2016, $115.7 million, or 51%, of total revenue was generated from the United States, which represents an 10% increase in revenue as compared to 2015. The increase was due to higher products revenue as well as higher PCS sales in connection with our increased installed customer base.

During 2016, $53.0 million, or 23%, of total revenue was generated from Japan, which represents a 49% increase in revenue as compared to 2015. The increase was primarily due to higher revenue from service provider customers and expansion to new customers in Japan. In addition, the favorable currency exchange impact of the Japanese yen on products revenue was $4.5 million during 2016.

During 2016, $29.8 million, or 13%, of total revenue was generated from the Asia Pacific regions excluding Japan, which represents a 25% increase in revenue as compared to 2015. The increase was due to higher products revenue resulting from expanding our presence in these regions as well as higher PCS sales in connection with our increased installed customer base.

During 2016, $23.7 million, or 10%, of total revenue was generated from EMEA, which represents a 9% decrease in revenue as compared to 2015. The decrease was due to lower products revenue as a result of overall economic weakness in the EMEA markets as well as personnel turnover in our Middle East operations, partially offset by an increase in services revenue.

Cost of Revenue, Gross Profit and Gross Margin

Cost of revenue

Cost of products revenue is primarily comprised of cost of third-party manufacturing services and cost of inventory for the hardware component of our products. Cost of products revenue also includes warehouse personnel costs, shipping costs, inventory write-downs, certain allocated facilities and information technology infrastructure costs, and expenses associated with logistics and quality control.

Cost of services revenue is primarily comprised of personnel costs for our technical support, training and professional service teams. Cost of services revenue also includes the costs of inventory used to provide hardware replacements to end- customers under PCS contracts and certain allocated facilities and information technology infrastructure costs.

A summary of our cost of revenue is as follows (dollars in thousands):

	Years Ended December 31,		Change	
	2017	2016	Amount	Percent
Cost of revenue:				
Products	$36,269	$37,520	$(1,251)	(3)%
Services	17,049	16,893	156	1 %
Total cost of revenue	$53,318	$54,413	$(1,095)	(2)%

	Years Ended December 31,		Change	
	2016	2015	Amount	Percent
Cost of revenue:				
Products	$37,520	$32,763	$4,757	15 %
Services	16,893	15,639	1,254	8 %
Total cost of revenue	$54,413	$48,402	$6,011	12 %

Gross Margin

Gross margin may vary and be unpredictable from period to period due to a variety of factors. These may include the mix of revenue from each of our regions, the mix of our products sold within a period, discounts provided to customers, inventory write-downs and foreign currency exchange rates.

Our sales are generally denominated in U.S. dollars, however, in Japan they are denominated in Japanese yen.

Any of the factors noted above can generate either a favorable or unfavorable impact on gross margin.

A summary of our gross profit and gross margin is as follows (dollars in thousands):

	Years Ended December 31,					
	2017		2016		Change	
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin
Gross profit:						
Products	$113,634	75.8%	$114,788	75.4%	$(1,154)	0.4%
Services	68,477	80.1%	58,096	77.5%	10,381	2.6%
Total gross profit	$182,111	77.4%	$172,884	76.1%	$9,227	1.3%

	Years Ended December 31,					
	2016		2015		Change	
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin
Gross profit:						
Products	$114,788	75.4%	$102,168	75.7%	$12,620	(0.3)%
Services	58,096	77.5%	45,715	74.5%	12,381	3.0%
Total gross profit	$172,884	76.1%	$147,883	75.3%	$25,001	0.7%

2017 Gross Margin Compared to 2016 Gross Margin

Products gross margin increased by 0.4% in 2017 as compared to 2016 primarily due to the favorable impact as a result of lower inventory reserve for excess and obsolete products, partially offset by unfavorable geographic revenue mix. We had less sales from geographic regions and products with higher gross margins in 2017 as compared to 2016.

Services gross margin increased by 2.6% in 2017 as compared to 2016 primarily due to higher services revenue due to increased installed customer base while the personnel costs related to support, professional services and maintenance remained relatively constant.

2016 Gross Margin Compared to 2015 Gross Margin

Products gross margin decreased by 0.3% in 2016 as compared to 2015 primarily due to the unfavorable impact as result of higher inventory reserve for excess and obsolete products, partially offset by favorable geographic revenue mix. We had more sales from geographic regions and products with higher gross margins in 2016 as compared to 2015.

Services gross margin increased by 3.0% in 2016 as compared to 2015 primarily due to higher services revenue while the personnel costs related to support, professional services and maintenance remained relatively constant.

Operating Expenses

Our operating expenses consist of sales and marketing, research and development, general and administrative and litigation and settlement expenses. The largest component of our operating expenses is personnel costs which consist of wages, benefits, bonuses, and, with respect to sales and marketing expenses, sales commissions. Personnel costs also include stock-based compensation. We expect our personnel costs to increase as our business continues to grow and we hire new employees.

A summary of our operating expenses is as follows (dollars in thousands):

	Years Ended December 31,		Change	
	2017	2016	Amount	Percent
Operating expenses:				
Sales and marketing	$101,360	$104,360	$(3,000)	(3)%
Research and development	62,991	60,700	2,291	4 %
General and administrative	28,132	26,305	1,827	7 %
Litigation expense	—	2,089	(2,089)	(100)%
Total operating expenses	$192,483	$193,454	$(971)	(1)%

	Years Ended December 31,		Change	
	2016	2015	Amount	Percent
Operating expenses:				
Sales and marketing	$104,360	$104,531	$(171)	— %
Research and development	60,700	54,843	5,857	11 %
General and administrative	26,305	26,614	(309)	(1)%
Litigation and settlement expense	2,089	2,204	(115)	(5)%
Total operating expenses	$193,454	$188,192	$5,262	3 %

Sales and Marketing

Sales and marketing expenses are our largest functional category of operating expenses and primarily consist of personnel costs. Sales and marketing expenses also include the cost of marketing programs, trade shows, consulting services, promotional materials, demonstration equipment, depreciation and certain allocated facilities and information technology infrastructure costs.

Sales and marketing expenses decreased $3.0 million, or 3%, in 2017 as compared to 2016 primarily attributable to a $2.2 million decrease in personnel costs as a result of lower sales commissions and a $0.9 million decrease in travel and entertainment.

Sales and marketing expenses remained relatively unchanged in 2016 as compared to 2015 as a $0.9 million decrease in depreciation expense, a $0.8 million decrease in contractors and consultants fees and $0.7 million decrease in recruiting fees were partially offset by a $1.9 million increase in personnel costs due to higher headcount and a $0.3 million increase in rent for sales offices.

Sales and marketing expenses may increase in the future as we expand our sales presence in existing countries and into new countries.

Research and Development

Research and development efforts are focused on new product development and on developing additional functionality for our existing products. These expenses primarily consist of personnel costs, and, to a lesser extent, prototype materials, depreciation and certain allocated facilities and information technology infrastructure costs. We expense research and development costs as incurred.

Research and development expenses increased $2.3 million, or 4%, in 2017 as compared to 2016 primarily attributable to a $1.0 million increase in personnel costs, a $0.5 million increase in contractors and consultants fees, a $0.4 million increase in expensed equipment and software subscription and a $0.4 million increase in depreciation expense.

Research and development expenses increased $5.9 million, or 11%, in 2016 as compared to 2015 primarily attributable to a $4.5 million increase in personnel costs due to higher headcount and impact from the acquisition of Appcito, a $0.6 million increase in amortization expense mainly due to purchased intangibles from the acquisition of Appcito and a $0.6 million increase in professional services.

We expect our research and development expenses to increase in the future as we continue to develop new products and enhance our existing products.

General and Administrative

General and administrative expenses primarily consist of personnel costs, professional services and office expenses. General and administrative personnel costs include executive, finance, human resources, information technology, facility and legal (excluding litigation) related expenses. Professional services primarily consist of fees for outside accounting, tax, legal, recruiting and other administrative services.

General and administrative expenses increased $1.8 million, or 7%, in 2017 as compared to 2016 primarily attributable a $0.7 million increase in business and office, a $0.5 million increase in personnel costs and a $0.5 million increase in recruiting fees.

General and administrative expenses decreased $0.3 million, or 1%, in 2016 as compared to 2015 primarily attributable a $1.6 million decrease in contractors and consultants fees, a $1.2 million decrease in business and office expense due to lower bad debt expense and a $0.5 million decrease in professional services, partially offset by a $2.8 million increase in personnel costs.

General and administrative expenses may increase in the future.

Litigation and Settlement Expense

Litigation and settlement expense is comprised of legal expenses incurred related to litigation and, if applicable, charges for litigation reserves. Litigation expenses consist of professional fees incurred in defending ourselves against litigation matters and are expensed as incurred when professional services are provided. The litigation reserve, if any, consists of accruals we make related to estimated losses in pending legal proceedings. Litigation reserves, if any, are adjusted as we change our estimates or make payments in damages or settlements.

We had no litigation and settlement expense in 2017. Litigation and settlement expense of $2.1 million in 2016 was due to the class action and the derivative action lawsuits which were settled in the second quarter of 2016.

Litigation and settlement expense decreased $0.1 million in 2016 as compared to 2015 due to fewer litigation-related activities following the agreements to settle the Class Action and the Derivative Action lawsuits in 2016.

Interest Expense

Interest expense consists primarily of interest expense and amortization of debt issuance costs. At December 31, 2017 and 2016, we had no outstanding balances on our credit facility. We expect to continue to incur commitment fees associated with the undrawn balance of our credit facility. At such time we choose to draw down on the credit facility, we would reduce the commitment fees accrued and increase the interest on outstanding balances.

Interest expense was immaterial in 2017, 2016 and 2015.

Interest and Other Income (Expense), Net

Interest income consists primarily of interest income earned on our cash and cash equivalents and marketable securities. Other income (expense) consists primarily of foreign currency exchange gains and losses.

Interest and other income (expense), net, increased $1.6 million in 2017 as compared to 2016 primarily due to a $1.2 million increase in foreign exchange gain and a $0.4 million increase in interest income.
Interest and other income (expense), net, decreased $0.3 million in 2016 as compared to 2015 primarily due to a $1.0 million increase in foreign exchange losses, partially offset by a $0.8 million increase in interest income.

Provision for Income Taxes

We recorded income tax provision of $1.2 million, $0.8 million and $0.7 million for the years ended December 31, 2017, 2016 and 2015, respectively, which primarily consisted of foreign taxes. Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the carrying amounts of existing assets and liabilities in the financial statements and their respective tax bases using tax rates expected to be in effect during the years in which the basis differences reverse.

We currently maintain a valuation allowance on federal and state deferred tax assets, and we will continue to maintain a valuation allowance against all of our U.S. and certain foreign deferred tax assets until there is sufficient evidence to support the reversal of all or some portion of this allowance.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code including, but not limited to: (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations; (5) eliminating the corporate alternative minimum tax (“AMT”) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (“BEAT”), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

As a result of the reduction in the U.S. corporate income tax rate, we revalued our U.S. net deferred tax asset at December 31, 2017. The revaluation is based on the rates at which the U.S. net deferred tax assets are expected to reverse in the future. There was no impact to the balance sheet and income statement due to the full valuation allowance placed on the deferred tax assets for the U.S. We will continue to review and assess the potential future impact of the legislation and how it may apply to future periods. Please see Note 9. Income Taxes to the consolidated financial statements in Part II, Item 8 for further details.

Liquidity and Capital Resources

As of December 31, 2017, we had cash and cash equivalents of $46.6 million, including approximately $4.8 million held outside the United States in our foreign subsidiaries, and $84.6 million of marketable securities. We currently do not have any plans to repatriate our earnings from our foreign operations. As of December 31, 2017, we had working capital of $111.1 million, an accumulated deficit of $257.0 million and total stockholders’ equity of $98.4 million.

We plan to continue to invest for long-term growth, and our investment may increase. We believe that our existing cash and cash equivalents, marketable securities and other available financial resources will be sufficient to meet our anticipated cash needs for at least the next 12 months. Our future capital requirements will depend on many factors, including our growth rate, the expansion of sales and marketing activities, the timing and extent of spending to support development efforts, the introduction of new and enhanced product and service offerings and the continuing market acceptance of our products. In the event that additional financing is required from outside sources, we may not be able to raise such financing on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, operating results and financial condition could be adversely affected.

On October 27, 2016, our board of directors authorized a share repurchase program for up to $20.0 million of our common stock over 12 months. Under the repurchase authorization, shares may be purchased from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases, privately negotiated transactions or other means. During the years ended December 31, 2017 and 2016, we repurchased 451,259 shares at an average price of $6.81 and 226,676 shares at an average price of $7.92, respectively, as part of this publicly announced program which expired on October 23, 2017. We used approximately $3.1 million and $1.8 million of cash for share repurchases during the years ended December 31, 2017 and 2016, respectively.

On October 23, 2017, our board of directors authorized another share repurchase program for up to $20.0 million of our common stock over 12 months. Under the repurchase authorization, shares may be purchased from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases, privately negotiated transactions or other means. The repurchase authorization may be commenced, suspended or discontinued at any time at our discretion. No shares were repurchased under this repurchase program as of December 31, 2017.

In addition, as described in Note 6. Commitments and Contingencies to the consolidated financial statements, we are currently, or may be from time to time be, involved in ongoing litigation. Any adverse settlements or judgments in any litigation could have a material adverse impact on our results of operations, cash balances and cash flows in the period in which such events occur.

Credit Facility

In November 2016, we entered into the 2016 Credit Facility with SVB as the lender. The 2016 Credit Facility provides a three-year, $25.0 million revolving credit facility, which includes a maximum of $25.0 million letter of credit subfacility. When the balance of our cash, cash equivalents and marketable securities minus outstanding revolving loans and letters of credit equals or exceeds $50.0 million, loans may be advanced under the 2016 Credit Facility up to the full $25.0 million. When the balance of our cash, cash equivalents and marketable securities minus outstanding revolving loans and letters of credit falls below $50.0 million, loans may be advanced under the 2016 Credit Facility based on a borrowing base equal to a specified percentage of the value of our eligible accounts receivable. The loans bear interest, at our option, at (i) the prime rate reported in The Wall Street Journal, minus 0.50% or (ii) a LIBOR rate determined in accordance with the 2016 Credit Facility, plus 2.50%.

Our obligations under the 2016 Credit Facility are secured by substantially all of our assets, excluding our intellectual property. The 2016 Credit Facility contains customary affirmative and negative covenants, in each case subject to customary exceptions, and customary events of default. In addition, the 2016 Credit Facility requires us to maintain compliance with an adjusted quick ratio of not less than 1:50:1.00, as determined in accordance with the 2016 Credit Facility. We had no outstanding balance under the 2016 Credit Facility and were in compliance with all covenants as of December 31, 2017 except for the annual audited financial statement with an unqualified opinion no later than 180 days after the last day of the fiscal year. However, SVB has granted a forbearance on this requirement through August 31, 2018.

Statements of Cash Flows

The following table summarizes our cash flow related activities (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Cash provided by (used in):			
Operating activities	$14,314	$18,778	$3,391
Investing activities	(5,142)	(96,355)	(3,477)
Financing activities	8,420	8,435	6,298
Net increase (decrease) in cash and cash equivalents	$17,592	$(69,142)	$6,212

Cash Flows from Operating Activities

Our cash provided by operating activities is driven primarily by sales of our products and management of working capital investments. Our primary uses of cash from operating activities have been for personnel-related expenditures, manufacturing costs, marketing and promotional expenses and costs related to our facilities. Our cash flows from operating activities will continue to be affected principally by the extent to which we increase spending on our business and our working capital requirements.

During the year ended December 31, 2017, cash provided by operating activities was $14.3 million, consisting of a net loss of $10.8 million, a cash decrease resulting from the net change in operating assets and liabilities of $1.4 million and non-cash charges of $26.4 million. Our non-cash charges consisted primarily of stock-based compensation of $17.2 million, depreciation and amortization of $8.5 million and provision for doubtful accounts and sales returns allowance of $1.1 million. The net change in our operating assets and liabilities primarily reflect an inflow from the changes in accounts receivable of $12.4 million and deferred revenue of $3.0 million, and an outflow from the change in accrued liabilities of $8.9 million, inventory of $4.7 million, prepaid expenses and other assets of $2.4 million and accounts payable of $0.9 million.

The decrease in accounts receivable was primarily due to the timing of billing and cash collections. The increase in deferred revenue was primarily due to higher contract renewals. The decrease in accrued liabilities was primarily due to lower accrued bonuses and commissions. The increase in inventory was primarily due to lower product shipments. The increase in prepaid expenses and other assets was primarily due to prepaid royalties, software subscription renewals and prepaid expenses and deposit related to a sales event. The decrease in accounts payable was primarily due to the timing of vendor invoice payments.

During the year ended December 31, 2016, cash provided by operating activities was $18.8 million, consisting of a net loss of $22.4 million, a cash increase resulting from the net change in operating assets and liabilities of $13.5 million and non-cash charges of $27.6 million. Our non-cash charges consisted primarily of stock-based compensation of $16.9 million, depreciation and amortization of $8.3 million and provision for doubtful accounts and sales returns allowance of $1.6 million. The net change in our operating assets and liabilities primarily reflect an inflow from the changes in deferred revenue of $19.6 million, accrued liabilities of $3.1 million and inventory of $0.5 million, and an outflow from the change in accounts receivable of $8.7 million.

During the year ended December 31, 2015, cash provided by operating activities was $3.4 million, consisting of a net loss of $41.9 million, a cash increase resulting from the net change in operating assets and liabilities of $17.3 million and non-cash charges of $28.0 million. Our non-cash charges consisted primarily of stock-based compensation of $16.9 million, depreciation and amortization of $8.7 million and provision for doubtful accounts and sales returns allowance of $2.5 million. Net change in our operating assets and liabilities primarily reflect an inflow from the changes in deferred revenue of $14.8 million, accounts payable and accrued liabilities of $6.5 million, and an outflow from the change in accounts receivable of $3.0 million.

Cash Flows from Investing Activities

During the year ended December 31, 2017, cash used in investing activities was $5.1 million, consisting of purchases of property and equipment of $5.7 million, partially offset by net proceeds from sales and maturities of marketable securities of $0.6 million.

During the year ended December 31, 2016, cash used in investing activities was $96.4 million, primarily consisting of net purchases of marketable securities of $85.6 million, purchases of property and equipment of $4.9 million, payment for the acquisition of substantially all of the assets of Appcito Inc. of $4.4 million and purchase of an intangible asset of $1.5 million.

During the years ended December 31, 2015, cash used in investing activities was $3.5 million for purchases of property and equipment.

Cash Flows from Financing Activities

During the year ended December 31, 2017, cash provided by financing activities was $8.4 million, primarily consisting of proceeds from common stock of issuances under our equity incentive plans of $12.2 million, partially offset by the stock repurchase and retirement of common stock of $3.1 million and payment of contingent consideration of $0.7 million.

During the year ended December 31, 2016, cash provided by financing activities was $8.4 million, primarily consisting of proceeds from common stock of issuances under our equity incentive plans of $10.3 million, partially offset by the stock repurchase and retirement of common stock of $1.8 million.

During the year ended December 31, 2015, cash provided by financing activities was $6.3 million, primarily consisting of proceeds from common stock issuances under our equity incentive plans.

Contractual Obligations

Our contractual obligations consist of capital leases, operating leases, purchase commitments, and other contractual obligations.

The following table summarizes our contractual obligations as of December 31, 2017 (in thousands):

Total

		Less Than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 years
Leases and Other Contractual Obligations	$10,900	$4,001	$5,399	$1,500	$ —
Purchase Commitments	10,368	10,368	—	—	—
	$21,268	$14,369	$5,399	$1,500	$ —

The contractual obligations table above excludes $3.8 million of tax liabilities related to uncertain tax positions because we are unable to make a reasonably reliable estimate of the timing of settlement, if any, of these future payments.

Off-Balance Sheet Arrangements

As of December 31, 2017, we did not have any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities that are typically established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

We believe the following critical accounting policies require us to make significant judgments and estimates in the preparation of our consolidated financial statements.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for estimated losses in the collection of accounts receivable. We evaluate the collectability of our accounts receivable based on known collection risks and historical experience. In circumstances where we are aware of a specific customer’s inability to meet its financial obligations to us (e.g., bankruptcy filings or substantial downgrading of credit ratings), we record a specific reserve for bad debts against amounts due to reduce the net recognized receivable to the amount we reasonably believe will be collected. For all other customers, we record reserves for bad debts based on the length of time the receivables are past due and our historical experience of collections and write-offs.

Inventory

Inventory consists primarily of finished goods and related component parts and is stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or market value (estimated net realizable value). We evaluate inventory for excess and obsolete products, based on management’s assessment of future demand and market conditions. Inventory write-downs, once established, are not reversed as they establish a new cost basis for the inventory. Inventory write downs are included as a component of cost of products revenue in the accompanying consolidated statements of operations.

Revenue Recognition

We derive revenue from two sources: (i) products revenue, which includes hardware, perpetual software license and product-based subscription; and (ii) services revenue, which include post contract support (“PCS”), professional services, and training. A substantial portion of our revenue is from sales of our products and services through distribution channel partners, such as resellers and distributors. Revenue is recognized, net of applicable taxes, when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery or performance has occurred, the sales price is fixed or determinable, and collection is reasonably assured.

We define each of the four criteria above as follows:

- Persuasive evidence of an arrangement exists. Evidence of an arrangement consists of a purchase order issued pursuant to the terms and conditions of a master sales agreement.

- Delivery or performance has occurred. We use shipping documents or written evidence of customer acceptance, when applicable, to verify delivery or performance. We recognize product revenue upon transfer of title and risk of loss, which primarily is upon shipment to customers. We do not have significant obligations for future performance, such as customer acceptance provisions, rights of return, or pricing credits, associated with our sales.

- The sales price is fixed or determinable. We assess whether the sales price is fixed or determinable based on payment terms and whether the sales price is subject to refund or adjustment. Standard payment terms to customers range from 30 to 90 days.

- Collection is reasonably assured. We assess probability of collection on a customer-by-customer basis. Our customers are subjected to a credit review process that evaluates their financial condition and ability to pay for products and services. For sales made through distribution channel partners, collectability is assessed independent of the end customer's ability to pay.

PCS revenue includes arrangements for software support and technical support for our products. PCS is offered under renewable, fee-based contracts, which include technical support, hardware repair and replacement parts, bug fixes, patches, and unspecified upgrades on a when-and-if available basis. Revenue for PCS services is recognized on a straight-line basis over the service contract term, which is typically one year, but can be up to five years. Unearned PCS revenue is included in deferred revenue.

Professional service revenue primarily consists of the fees we earn related to installation and consulting services. We recognize revenue from professional services upon delivery or completion of performance. Professional service arrangements are typically short term in nature and are largely completed within 30 to 90 days from the start of service.

Multiple-Element Arrangements

Our hardware with the embedded software solutions (which is a proprietary operating system that together with the hardware delivers the functionality desired by our customers), is considered a separate unit of accounting from PCS because it has value to the customer on a standalone basis and our sales arrangements do not include a right of return for delivered products. For multiple-element arrangements, we allocate revenue to each unit of accounting based on an estimated selling price at the inception of the arrangement. The total arrangement consideration is allocated to each separate unit of accounting using the relative selling price method. We limit the amount of revenue recognized for delivered elements to an amount that is not contingent upon future delivery of additional products or service.

When applying the relative selling price method, we determine the selling price for each element using (i) vendor-specific objective evidence, or VSOE, of selling price, if available; (ii) third-party evidence, or TPE, of selling price, if VSOE is not available; and (iii) best estimate of selling price, or BESP, if neither VSOE nor TPE is available.

• VSOE. We determine VSOE based on our historical pricing and discounting practices for the specific products and services when sold separately. In determining VSOE, we require that a substantial majority of the stand-alone selling prices fall within a reasonably narrow pricing range.

• TPE. When VSOE cannot be established for deliverables in multiple-element arrangements, we apply judgment with respect to whether we can establish a selling price based on TPE. TPE is determined based on competitor prices for interchangeable products or services when sold separately to similarly situated customers. However, as our products contain a significant element of proprietary technology and our solutions offer substantially different features and functionality, the comparable pricing of products with similar functionality typically cannot be obtained. Additionally, as we are unable to reliably determine what competitors products' selling prices are on a stand-alone basis, we are not typically able to determine TPE.

• BESP. When we are unable to establish selling price using VSOE or TPE, we use BESP in our allocation of arrangement consideration.

The objective of BESP is to determine the price at which we would transact a sale if the product or service was sold regularly on a standalone basis. As we have not been able to establish VSOE or TPE for our products and some of our services, we determine BESP for the purposes of allocating the arrangement, primarily based on historical transaction pricing. Historical transactions are segregated based on our pricing model and go-to-market strategy, which include factors such as the geographies in which our products and services were sold (domestic or international), offering type (product series, and level of support for PCS) and type of sales channel. The determination of BESP is made through consultation with and approval by management.

We may occasionally accept returns to address customer satisfaction issues or solution-fit issues even though there is no contractual provision for such returns. We estimate returns for sales to customers based on historical returns rates applied against current-period gross revenues. Specific customer returns and allowances are considered within this estimate. Management also analyzes changes in customer demand and acceptance of products when evaluating the adequacy of returns and sales allowances.

Stock-Based Compensation

Stock-based compensation expense is measured on the grant date based on the fair value of the award and recognized on a straight-line basis over the requisite service period. The fair value of restricted stock units ("RSUs") is estimated using our stock price on the grant date. The fair value of options and employee stock purchase rights is estimated using the Black-Scholes model on the grant date. The Black-Scholes model determines the fair value of share-based payment awards based on assumptions including expected term, stock price volatility, and risk-free interest rate. The fair value of market-performance based restricted stock units ("MSUs") is valued using the Monte Carlo simulation model, which uses the stock price, expected volatility and risk-free interest rate to determine the fair value.

Income Taxes

We account for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our consolidated financial statements or in our tax returns. Estimates and judgments occur in the calculation of certain tax liabilities and in the determination of the recoverability of certain deferred income tax assets, which arise from temporary differences and carryforwards. Deferred income tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those tax assets are expected to be realized or settled. We regularly assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe, based upon the weight of available evidence, that it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is established through an adjustment to income tax expense.

The factors used to assess the likelihood of realization of our deferred tax assets include our forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. Assumptions represent our best estimates and involve inherent uncertainties and the application of our judgment.

We account for uncertainty in income taxes recognized in our consolidated financial statements by regularly reviewing our tax positions and benefits to be realized. We recognize tax liabilities based upon our estimate of whether, and the extent to which, additional taxes will be due when such estimates are more-likely-than-not to be sustained. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained upon examination by taxing authorities. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Recent Accounting Pronouncements

Information with respect to recent accounting pronouncements may be found in Note 1. Description of Business and Summary of Significant Accounting Policies to the consolidated financial statements included in this Annual Report on Form 10-K.

Supplementary Financial Information

The following tables set forth certain historical unaudited consolidated condensed quarterly financial information for each of the quarters during the years ended December 31, 2017 and December 31, 2016. This unaudited information has been restated for the effects of the Revenue Recognition Adjustments more fully described in Note 2. Restatement of Previously Issued Consolidated Financial Statements included within Part II, Item 8 of this Form 10-K, has been prepared on a basis consistent with our annual financial statements and includes all adjustments necessary for the fair presentation of the unaudited quarterly data (unaudited, in thousands, except per share amounts).

	For the Three Months Ended			
	March 31, 2017 (Restated)	June 30, 2017 (Restated)	September 30, 2017 (Restated)	December 31, 2017
Revenue:				
Products	$43,698	$32,828	$ 40,404	$ 32,973
Services	20,236	21,145	21,601	22,544
Total revenue	63,934	53,973	62,005	55,517
Cost of revenue:				
Products	10,502	8,265	9,357	8,145
Services	4,241	4,535	4,510	3,763
Total cost of revenue	14,743	12,800	13,867	11,908
Gross profit	49,191	41,173	48,138	43,609
Operating expenses:				
Sales and marketing	26,263	25,561	26,930	22,606
Research and development	17,042	16,490	15,997	13,462
General and administrative	7,647	6,852	6,945	6,688
Total operating expenses	50,952	48,903	49,872	42,756
Income (loss) from operations	(1,761)	(7,730)	(1,734)	853
Non-operating income (expense):				
Interest expense	(44)	(64)	(20)	(34)
Interest and other income (expense), net	842	(26)	(37)	210
Total non-operating income (expense), net	798	(90)	(57)	176
Income (loss) before income taxes	(963)	(7,820)	(1,791)	1,029
Provision for income taxes	374	135	454	243
Net income (loss)	$(1,337)	$(7,955)	$ (2,245)	$ 786
Net income (loss) per share - basic and diluted	$(0.02)	$(0.11)	$ (0.03)	$ 0.01
Weighted-average shares used in computing net loss per share - basic	68,571	69,770	70,705	71,145
Weighted-average shares used in computing net loss per share - diluted	68,571	69,770	70,705	74,559

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	For the Three Months Ended					
	March 31, 2017		June 30, 2017		September 30, 2017	
	(As Previously Reported)	(Restated)	(As Previously Reported)	(Restated)	(As Previously Reported)	(Restated)
Revenue:						
Products	$39,706	$43,698	$32,100	$32,828	$39,389	$40,404
Services	20,580	20,236	21,589	21,145	22,030	21,601
Total revenue	60,286	63,934	53,689	53,973	61,419	62,005
Cost of revenue:						
Products	9,784	10,502	8,070	8,265	9,119	9,357
Services	4,360	4,241	4,623	4,535	4,640	4,510
Total cost of revenue	14,144	14,743	12,693	12,800	13,759	13,867
Gross profit	46,142	49,191	40,996	41,173	47,660	48,138
Operating expenses:						
General and administrative	7,161	7,647	6,989	6,852	6,878	6,945
Total operating expenses	50,466	50,952	49,040	48,903	49,805	49,872
Income (loss) from operations	(4,324)	(1,761)	(8,044)	(7,730)	(2,145)	(1,734)
Income (loss) before income taxes	(3,526)	(963)	(8,134)	(7,820)	(2,202)	(1,791)
Net income (loss)	$(3,900)	$(1,337)	$(8,269)	$(7,955)	$(2,656)	$(2,245)
Net income (loss) per share - basic and diluted	$(0.06)	$(0.02)	$(0.12)	$(0.11)	$(0.04)	$(0.03)
Weighted-average shares used in computing net loss per share - basic and diluted	68,571	68,571	69,770	69,770	70,705	70,705

	For the Three Months Ended			
	March 31, 2016 (Restated)	June 30, 2016 (Restated)	September 30, 2016 (Restated)	December 31, 2016 (Restated)
Revenue:				
Products	$37,898	$38,846	$ 35,057	$ 40,507
Services	17,118	18,210	19,401	20,260
Total revenue	55,016	57,056	54,458	60,767
Cost of revenue:				
Products	8,876	9,873	8,826	9,945
Services	4,494	4,283	4,046	4,070
Total cost of revenue	13,370	14,156	12,872	14,015
Gross profit	41,646	42,900	41,586	46,752
Operating expenses:				
Sales and marketing	26,768	26,773	24,331	26,488
Research and development	14,777	14,486	15,968	15,469
General and administrative	6,701	6,590	6,294	6,720
Litigation expense	1,791	202	66	30
Total operating expenses	50,037	48,051	46,659	48,707
Income (loss) from operations	(8,391)	(5,151)	(5,073)	(1,955)
Non-operating income (expense):				
Interest expense	(126)	(126)	(145)	(27)
Interest and other income (expense), net	215	1,020	309	(2,184)
Total non-operating income (expense), net	89	894	164	(2,211)
Loss before income taxes	(8,302)	(4,257)	(4,909)	(4,166)
Provision for income taxes	204	59	298	196
Net loss	$(8,506)	$(4,316)	$ (5,207)	$ (4,362)
Net loss per share - basic and diluted	$(0.13)	$(0.07)	$ (0.08)	$ (0.06)
Weighted-average shares used in computing net loss per share - basic and diluted	64,309	64,861	66,260	67,505

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	For the Three Months Ended							
	March 31, 2016		June 30, 2016		September 30, 2016		December 31, 2016	
	(As Previously Reported)	(Restated)	(As Previously Reported)	(Restated)	(As Previously Reported)	(Restated)	(As Previously Reported)	(Restated)
Revenue:								
Products	$36,374	$37,898	$38,797	$38,846	$35,275	$35,057	$43,474	$40,507
Services	17,430	17,118	18,333	18,210	19,793	19,401	20,527	20,260
Total revenue	53,804	55,016	57,130	57,056	55,068	54,458	64,001	60,767
Cost of revenue:								
Products	8,698	8,876	9,804	9,873	8,795	8,826	10,383	9,945
Services	4,529	4,494	4,405	4,283	4,153	4,046	4,143	4,070
Total cost of revenue	13,227	13,370	14,209	14,156	12,948	12,872	14,526	14,015
Gross profit	40,577	41,646	42,921	42,900	42,120	41,586	49,475	46,752
Operating expenses:								
General and administrative	6,661	6,701	7,230	6,590	6,305	6,294	6,867	6,720
Total operating expenses	49,997	50,037	48,691	48,051	46,670	46,659	48,854	48,707
Income (loss) from operations	(9,420)	(8,391)	(5,770)	(5,151)	(4,550)	(5,073)	621	(1,955)
Loss before income taxes	(9,331)	(8,302)	(4,876)	(4,257)	(4,386)	(4,909)	(1,590)	(4,166)
Net loss	$(9,535)	$(8,506)	$(4,935)	$(4,316)	$(4,684)	$(5,207)	$(1,786)	$(4,362)
Net loss per share - basic and diluted	$(0.15)	$(0.13)	$(0.08)	$(0.07)	$(0.07)	$(0.08)	$(0.03)	$(0.06)
Weighted-average shares used in computing net loss per share - basic and diluted	64,309	64,309	64,861	64,861	66,260	66,260	67,505	67,505

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Risk

Our consolidated results of operations, financial position and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. Historically, the majority of our revenue contracts are denominated in U.S. dollars, with the most significant exception being Japan where we invoice primarily in Japanese yen. Our costs and expenses are generally denominated in the currencies where our operations are located, which is primarily in North America, Japan and, to a lesser extent, EMEA and the Asia Pacific region. In 2016, we initiated a hedging program with respect to foreign currency risk. Revenue resulting from selling in local currencies and costs and expenses incurred in local currencies are exposed to foreign currency exchange rate fluctuations, which can affect our revenue and operating income. As exchange rates vary, operating income may differ from expectations.

The functional currency of our foreign subsidiaries is the U.S. dollar. At the end of each reporting period, monetary assets and liabilities are remeasured to the functional currency using exchange rates in effect at the balance sheet date. Non-monetary assets and liabilities are remeasured at historical exchange rates. Gains and losses related to remeasurement are recorded in interest and other income (expense), net in the consolidated statements of operations. A significant fluctuation in the exchange rates between our subsidiaries' local currencies, especially the Japanese yen, British Pound and Euro, and the U.S. dollar could have an adverse impact on our consolidated financial position and results of operations.

We recorded $0.4 million, $1.6 million and $0.5 million foreign exchange loss during the years ended December 31, 2017, 2016 and 2015, respectively. The effect of a hypothetical 10% change in our exchange rate would not have a significant impact on our consolidated results of operations.

Interest Rate Risk

Our exposure to interest rates risk relates to our 2016 Credit Facility with variable interest rates, where an increase in interest rates may result in higher borrowing costs. Since we have no outstanding borrowings under our 2016 Credit Facility as of December 31, 2017, the effect of a hypothetical 10% change in interest rates would not have any impact on our interest expense.

Our exposure to market risk for changes in interest rates relates primarily to our marketable securities. Our marketable securities are comprised of certificates of deposit, corporate securities, U.S. Treasury and agency securities, commercial paper and asset-backed securities. At December 31, 2017, our investment portfolio included marketable securities with an aggregate fair market value of $84.6 million and a cost basis of $84.7 million.

The following table presents the hypothetical fair values of our marketable securities assuming immediate parallel shifts in the yield curve of 50 basis points (“BPS”), 100 BPS and 150 BPS as of December 31, 2017 (in thousands):

	(150 BPS)	(100 BPS)	(50 BPS)	Fair Value as of 12/31/2017	50 BPS	100 BPS	150 BPS
Marketable securities	$85,258	$85,030	$84,798	$ 84,567	$84,335	$84,103	$83,872

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTAL DATA
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS(*)

(*) The consolidated financial statements for the years ended December 31, 2016 and 2015 have been restated as further discussed in Note 2 to these consolidated financial statements.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of A10 Networks, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of A10 Networks and subsidiaries (the “Company”) as of December 31, 2017, 2016 and 2015, the related consolidated statements of operations, comprehensive loss, stockholders’ equity, and cash flows, for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017, 2016 and 2015, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Restatement of the 2016 and 2015 Financial Statements

As discussed in Note 2 to the financial statements, the accompanying 2016 and 2015 financial statements have been restated to correct for misstatements.

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 Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. Our audits included performing procedures to assess the risks of material misstatement of the 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/ Deloitte & Touche LLP
San Jose, California
August 28, 2018

We have served as the Company’s auditor since 2011.

A10 NETWORKS, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

	December 31, 2017	December 31, 2016 (As Restated, Note 2)	December 31, 2015 (As Restated, Note 2)
ASSETS			
Current Assets:			
Cash and cash equivalents	$ 46,567	$ 28,975	$ 98,117
Marketable securities	84,567	85,372	—
Accounts receivable, net of allowances of $983, $1,920 and $2,660 respectively	48,266	61,287	54,753
Inventory	17,577	15,849	18,657
Prepaid expenses and other current assets	6,825	5,221	5,064
Total current assets	203,802	196,704	176,591
Property and equipment, net	9,913	8,219	8,903
Goodwill	1,307	1,307	72
Intangible assets	5,190	6,633	795
Other non-current assets	4,646	3,870	3,531
Total Assets	$ 224,858	$ 216,733	$ 189,892
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current Liabilities:			
Accounts payable	$ 9,033	$ 9,851	10,508
Accrued liabilities	21,835	31,525	27,757
Deferred revenue, current	61,858	60,043	48,776
Total current liabilities	92,726	101,419	87,041
Deferred revenue, non-current	32,779	31,574	23,232
Other non-current liabilities	967	988	1,414
Total Liabilities	126,472	133,981	111,687
Commitments and contingencies (Note 6)			
Stockholders' equity:			
Common stock, par value $0.00001 - 500,000 shares authorized; 71,692, 67,873 and 64,172 shares issued and outstanding, respectively	1	1	1
Additional paid-in capital	355,533	328,869	301,886
Accumulated other comprehensive loss	(123)	(45)	—
Accumulated deficit	(257,025)	(246,073)	(223,682)
Total Stockholders' Equity	98,386	82,752	78,205
Total Liabilities and Stockholders' Equity	$ 224,858	$ 216,733	$ 189,892

See accompanying notes to consolidated financial statements.

A10 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)

	Years Ended December 31,		
	2017	2016 (As Restated, Note 2)	2015 (As Restated, Note 2)
Revenue:			
Products	$149,903	$152,308	$134,931
Services	85,526	74,989	61,354
Total revenue	235,429	227,297	196,285
Cost of revenue:			
Products	36,269	37,520	32,763
Services	17,049	16,893	15,639
Total cost of revenue	53,318	54,413	48,402
Gross profit	182,111	172,884	147,883
Operating expenses:			
Sales and marketing	101,360	104,360	104,531
Research and development	62,991	60,700	54,843
General and administrative	28,132	26,305	26,614
Litigation and settlement expense	—	2,089	2,204
Total operating expenses	192,483	193,454	188,192
Loss from operations	(10,372)	(20,570)	(40,309)
Non-operating income (expense):			
Interest expense	(162)	(424)	(509)
Interest and other income (expense), net	989	(640)	(332)
Total non-operating income (expense), net	827	(1,064)	(841)
Loss before income taxes	(9,545)	(21,634)	(41,150)
Provision for income taxes	1,206	757	747
Net loss	$(10,751)	$(22,391)	$(41,897)
Net loss per share:			
Basic and diluted	$(0.15)	$(0.34)	$(0.67)
Weighted-average shares used in computing net loss per share:			
Basic and diluted	70,053	65,701	62,428

See accompanying notes to consolidated financial statements.

A10 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	Years Ended December 31,		
	2017	2016 (As Restated, Note 2)	2015 (As Restated, Note 2)
Net loss	$(10,751)	$(22,391)	$(41,897)
Other comprehensive loss, net of tax:			
Unrealized loss on marketable securities	(78)	(45)	—
Comprehensive loss	$(10,829)	$(22,436)	$(41,897)

See accompanying notes to consolidated financial statements.

A10 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock					
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at December 31, 2014	61,377	$ 1	$ 278,349	$ (181,785)	$ —	$ 96,565
Stock-based compensation expense	—	—	16,861	—	—	16,861
Common stock issued under employee equity incentive plans	2,700	—	6,232	—	—	6,232
Vesting of early exercise stock options	95	—	444	—	—	444
Net loss (As Restated, Note 2)	—	—	—	(41,897)	—	(41,897)
Balance at December 31, 2015 (As Restated, Note 2)	64,172	1	301,886	(223,682)	—	78,205
Stock-based compensation expense		—	16,922	—	—	16,922
Common stock issued under employee equity incentive plans	3,664	—	10,336	—	—	10,336
Common stock issued under asset purchase agreement	227	—	1,313	—	—	1,313
Vesting of early exercise stock options	37	—	211	—	—	211
Repurchase and retirement of common stock	(227)	—	(1,799)	—	—	(1,799)
Unrealized loss on marketable securities, net of tax	—	—	—	—	(45)	(45)
Net loss (As Restated, Note 2)		—	—	(22,391)		(22,391)
Balance at December 31, 2016 (As Restated, Note 2)	67,873	1	328,869	(246,073)	(45)	82,752
Cumulative effect adjustment from adoption of ASU 2016-09	—	—	201	(201)	—	—
Stock-based compensation expense	—	—	17,203	—	—	17,203
Common stock issued under employee equity incentive plans	4,256	—	12,244	—	—	12,244
Vesting of early exercise stock options	14	—	87	—	—	87
Repurchase and retirement of common stock	(451)	—	(3,071)	—	—	(3,071)
Unrealized loss on marketable securities, net of tax	—	—	—	—	(78)	(78)
Net loss	—	—	—	(10,751)	—	(10,751)
Balance at December 31, 2017	71,692	$ 1	$ 355,533	$ (257,025)	$ (123)	$ 98,386

See accompanying notes to consolidated financial statements.

A10 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31, 2017	2016 (As Restated, Note 2)	2015 (As Restated, Note 2)
Cash flows from operating activities:			
Net loss	$(10,751)	$(22,391)	$(41,897)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	8,511	8,267	8,716
Stock-based compensation	17,203	16,922	16,861
Provision for doubtful accounts and sales returns	1,147	1,579	2,531
Other non-cash items	(422)	875	(82)
Changes in operating assets and liabilities:			
Accounts receivable, net	12,362	(8,724)	(2,952)
Inventory	(4,669)	479	(796)
Prepaid expenses and other assets	(2,399)	(180)	(405)
Accounts payable	(942)	(334)	1,109
Accrued liabilities	(8,868)	3,140	5,345
Accrued litigation expenses	(3)	(151)	6
Deferred revenue	3,018	19,609	14,788
Other	127	(313)	167
Net cash provided by operating activities	14,314	18,778	3,391
Cash flows from investing activities:			
Proceeds from sales of marketable securities	27,901	9,878	—
Maturities of marketable securities	60,138	30,750	—
Purchases of marketable securities	(87,447)	(126,231)	—
Purchases of property and equipment	(5,734)	(4,872)	(3,477)
Purchase of intangible asset	—	(1,500)	—
Payment for acquisition	—	(4,380)	—
Net cash used in investing activities	(5,142)	(96,355)	(3,477)
Cash flows from financing activities:			
Proceeds from issuance of common stock under employee equity incentive plans	12,244	10,336	6,019
Repurchase and retirement of common stock	(3,071)	(1,799)	—
Payment of contingent consideration	(650)	—	—
Other	(103)	(102)	279
Net cash provided by financing activities	8,420	8,435	6,298
Net increase (decrease) in cash and cash equivalents	17,592	(69,142)	6,212
Cash and cash equivalents - beginning of period	28,975	98,117	91,905
Cash and cash equivalents - end of period	$46,567	$28,975	$98,117
Supplemental Disclosures:			
Cash paid for income taxes, net of refunds	$1,108	$581	$980
Cash paid for interest	$111	$194	$170

See accompanying notes to consolidated financial statements.

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A10 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
(in thousands)

	Years Ended December 31,		
	2017	2016 (As Restated, Note 2)	2015 (As Restated, Note 2)
Non-Cash Investing and Financing Activities:			
Inventory transfers to property and equipment	$2,946	$ 2,360	$ 2,840
Vesting of early exercised stock options	$87	$ 211	$ 444
Purchases of property and equipment included in accounts payable	$286	$ 162	$ 486
Common stock issued under asset purchase agreement	$—	$ 1,313	$ —

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

A10 Networks, Inc. (together with our subsidiaries, the "Company", "we", "our" or "us") was incorporated in California in 2004 and reincorporated in Delaware in March 2014. We are headquartered in San Jose, California and have wholly-owned subsidiaries throughout the world including Asia and Europe.

We are a leading provider of secure application solutions and services that enable a new generation of intelligently connected companies with the ability to continuously improve cyber protection and digital responsiveness across dynamic
Information Technology ("IT") and network infrastructures. Our product portfolio seeks to address many of the aforementioned challenges and solution requirements. The portfolio consists of six secure application solutions; Thunder Application Delivery Controllers ("ADC"), Lightning Application Delivery Controller ("Lightning ADC"), Thunder Carrier Grade Network Address Translation ("CGN"), Thunder Threat Protection System ("TPS"), Thunder SSL Insight ("SSLi") and Thunder Convergent Firewall ("CFW"), and two intelligent management and automation tools; Harmony Controller and aGalaxy. Our solutions are available in a variety of form factors, such as optimized hardware appliances, bare metal software, virtual appliances and cloud-native software.

Basis of Presentation

The accompanying consolidated financial statements include those of A10 Networks, Inc. and its subsidiaries, after elimination of all intercompany accounts and transactions. We have prepared the accompanying consolidated financial statements in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") and pursuant to the rules and regulations of the United States Securities and Exchange Commission (the "SEC").

Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation in the consolidated balance sheets and the consolidated statements of cash flows. We have presented goodwill as a separate line item from intangible assets in the consolidated balance sheet as of December 31, 2016 and goodwill and intangible assets as separate line items from other non-current assets as of December 31, 2015. We have separately presented the line items "Proceeds from sales of marketable securities" and "Maturities of marketable securities" as opposed to our historical consolidated presentation of "Proceeds from sales and maturities of marketable securities" in the consolidated statement of cash flows for the fiscal year ended December 31, 2016.

Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Those estimates and assumptions affect revenue recognition and deferred revenue, the allowance for doubtful accounts, the sales return reserve, the valuation of inventory, the fair value of marketable securities, contingencies and litigation, acquisition related purchase price allocations, accrued liabilities, and the determination of fair value of stock-based compensation. These estimates are based on information available as of the date of the consolidated financial statements; therefore, actual results could differ from management's estimates.

Significant Accounting Policies

Cash and Cash Equivalents

We consider all highly liquid investments with an original maturity of 90 days or less at the date of purchase to be cash equivalents. Our cash equivalents consist of money market funds.

Marketable securities

We classify our investments in debt and equity securities as available-for-sale and record these investments at fair value. These investments are classified as current assets and included in marketable securities on the consolidated balance sheets. Unrealized gains and losses are reported in accumulated other comprehensive loss, net of taxes, in stockholders' equity. Realized gains and losses are determined based on the specific identification method and are reflected in our consolidated statements of operations. Realized gains and losses and other-than-temporary impairment charges, if any, on marketable securities are reported in interest and other income (expense), net as incurred.

We regularly review our investment portfolio to identify and evaluate investments that have indicators of possible impairment. Investments are considered impaired when a decline in fair value is judged to be other-than-temporary. If the cost of an individual investment exceeds its fair value, we evaluate, among other factors, general market conditions, the duration and extent to which the fair value is less than cost, and our intent and ability to hold the investment. Once a decline in fair value is determined to be other-than-temporary, we will record an impairment charge and establish a new cost basis in the investment.

Fair Value Measurement

Our financial instruments consist of cash, cash equivalents, marketable securities, accounts receivable and accounts payable. Accounts receivable and accounts payable are stated at their carrying value, which approximates fair value due to the short time to the expected receipt or payment. Our cash equivalents, which include money market funds, are measured and recorded at fair value on a recurring basis. Marketable securities are comprised of certificates of deposit, corporate securities, U.S. Treasury and agency securities, commercial paper and asset-backed securities and are measured at fair value using the three-level valuation hierarchy as described below.

Level 1 - Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 - Inputs are observable, quoted prices for identical assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities.

Level 3 - Unobservable inputs that are significant to the measurement of the fair value of the assets or liabilities that are supported by little or no market data.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded at invoice amounts, net of allowances for doubtful accounts. We evaluate the collectability of our accounts receivable based on known collection risks and historical experience. In circumstances where we are aware of a specific customer’s inability to meet its financial obligations to us (e.g., bankruptcy filings or substantial downgrading of credit ratings), we record a specific reserve for bad debts against amounts due to reduce the net recognized receivable to the amount we reasonably believe will be collected. For all other customers, we record reserves for bad debts based on the length of time the receivables are past due and our historical experience of collections and write-offs.

Inventory

Inventory consists primarily of finished goods and related component parts and is stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or market value (estimated net realizable value). We evaluate inventory for excess and obsolete products, based on management’s assessment of future demand and market conditions. Inventory write-downs, once established, are not reversed as they establish a new cost basis for the inventory. Inventory write downs are included as a component of cost of products revenue in the accompanying consolidated statements of operations.

Property and Equipment, Net

Property and equipment, including leasehold improvements, are stated at cost, less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets. Depreciation on property and equipment, excluding leasehold improvements, ranges from 1 to 3 years.

Leasehold improvements are amortized on a straight-line basis over the shorter of the estimated useful lives of the assets or the remaining lease term. Amortization on leasehold improvements ranges from 2 to 8 years.

Goodwill

Goodwill represents the excess of purchase consideration over the fair values of assets acquired and liabilities assumed in a business combination. Goodwill is not amortized but is reviewed for possible impairment annually in the fourth quarter or

more frequently if impairment indicators arise. We have one reporting unit for goodwill impairment tests, and the fair value of our reporting unit has been determined by our enterprise value.
When assessing goodwill for impairment, we first perform a qualitative assessment to determine whether further impairment testing is necessary. If, as a result of its qualitative assessment, it is more-likely-than-not (i.e. greater than 50% chance) that the fair value of our reporting unit is less than its carrying amount, the quantitative impairment test will be required.
Examples of events and circumstances that might indicate that a reporting unit's fair value is less than the carrying amount include macro-economic conditions such as (i) a significant adverse change in customer demand or a severe deterioration in the entity's operating environment and market conditions; (ii) entity-specific events such as increasing costs, declining financial performance, or loss of key personnel; or (iii) other events such as an expectation that a reporting unit will be sold or there will be a sustained decrease in the stock price on either an absolute basis or relative to peers.

If it is determined, as a result of the qualitative assessment, that it is more-likely-than-not that the fair value of our reporting unit is less than its carrying amount, we perform a two-step impairment test on goodwill. The first step requires the identification of the reporting units and a comparison of the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of the reporting unit is less than its carrying value, an indication of goodwill impairment exists for the reporting unit, and the second step of the impairment test is performed to compute the amount of the impairment. Under the second step, an impairment loss is recognized for any excess of the carrying amount of the reporting unit's goodwill over the implied fair value of that goodwill. There was no impairment of goodwill during the fiscal years ended December 31, 2017, 2016 and 2015.

Intangible Assets

Intangible assets consist of developed technology and patents resulting from acquisitions. Intangible assets are recorded at fair value and amortized on a straight-line basis over their estimated useful lives, which range from 5 to 10 years. There was no impairment of intangible assets during the fiscal years ended December 31, 2017, 2016 and 2015.

Impairment of Long-Lived Assets

We evaluate our property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of our long-lived asset may not be recoverable. Recoverability of an asset group is measured by comparison of its carrying amount to the expected future undiscounted cash flows that the asset group is expected to generate. If it is determined that an asset group is not recoverable, an impairment loss is recorded in the amount by which the carrying amount of the asset group exceeds its fair value.

Revenue Recognition

We derive revenue from two sources: (i) products revenue, which includes hardware, perpetual software license and product-based subscription; and (ii) services revenue, which includes post contract support ("PCS"), professional services, and training. A substantial portion of our revenue is from sales of our products and services through distribution channel partners, such as resellers and distributors. Revenue is recognized, net of applicable taxes, when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery or performance has occurred, the sales price is fixed or determinable, and collection is reasonably assured.

We define each of the four criteria above as follows:

- Persuasive evidence of an arrangement exists. Evidence of an arrangement consists of a purchase order issued pursuant to the terms and conditions of a master sales agreement.

- Delivery or performance has occurred. We use shipping documents or written evidence of customer acceptance, when applicable, to verify delivery or performance. We recognize product revenue upon transfer of title and risk of loss, which primarily is upon shipment to customers. We do not have significant obligations for future performance, such as customer rights of return or pricing credits associated with our sales.

- The sales price is fixed or determinable. We assess whether the sales price is fixed or determinable based on payment terms and whether the sales price is subject to refund or adjustment. Standard payment terms to customers range from 30 to 90 days.

- Collection is reasonably assured. We assess probability of collection on a customer-by-customer basis. Our customers are subjected to a credit review process that evaluates their financial condition and ability to pay for products and services. For sales made through distribution channel partners, collectability is assessed independent of the end customer's ability to pay.

PCS revenue includes arrangements for software support and technical support for our products. PCS is offered under renewable, fee-based contracts, which include technical support, hardware repair and replacement parts, bug fixes, patches, and unspecified upgrades on a when-and-if available basis. Revenue for PCS services is recognized on a straight-line basis over the service contract term, which is typically one year, but can be up to five years. Unearned PCS revenue is included in deferred revenue.

Professional service revenue primarily consists of the fees we earn related to installation and consulting services. We recognize revenue from professional services upon delivery or completion of performance. Professional service arrangements are typically short term in nature and are largely completed within 30 to 90 days from the start of service.

Multiple-Element Arrangements

Our hardware with the embedded software solutions (which is a proprietary operating system that together with the hardware delivers the functionality desired by our customers), is considered a separate unit of accounting from PCS because it has value to the customer on a standalone basis and our sales arrangements do not include a right of return for delivered products. For multiple-element arrangements, we allocate revenue to each unit of accounting based on an estimated selling price at the inception of the arrangement. The total arrangement consideration is allocated to each separate unit of accounting using the relative selling price method. We limit the amount of revenue recognized for delivered elements to an amount that is not contingent upon future delivery of additional products or service.

When applying the relative selling price method, we determine the selling price for each element using (i) vendor-specific objective evidence, or VSOE, of selling price, if available; (ii) third-party evidence, or TPE, of selling price, if VSOE is not available; and (iii) best estimate of selling price, or BESP, if neither VSOE nor TPE is available.

• VSOE. We determine VSOE based on our historical pricing and discounting practices for the specific products and services when sold separately. In determining VSOE, we require that a substantial majority of the stand-alone selling prices fall within a reasonably narrow pricing range.

• TPE. When VSOE cannot be established for deliverables in multiple-element arrangements, we apply judgment with respect to whether we can establish a selling price based on TPE. TPE is determined based on competitor prices for interchangeable products or services when sold separately to similarly situated customers. However, as our products contain a significant element of proprietary technology and our solutions offer substantially different features and functionality, the comparable pricing of products with similar functionality typically cannot be obtained. Additionally, as we are unable to reliably determine what competitors products' selling prices are on a stand-alone basis, we are not typically able to determine TPE.

• BESP. When we are unable to establish selling price using VSOE or TPE, we use BESP in our allocation of arrangement consideration.

The objective of BESP is to determine the price at which we would transact a sale if the product or service was sold regularly on a standalone basis. As we have not been able to establish VSOE or TPE for our products and some of our services, we determine BESP for the purposes of allocating the arrangement, primarily based on historical transaction pricing. Historical transactions are segregated based on our pricing model and go-to-market strategy, which include factors such as the geographies in which our products and services were sold (domestic or international), offering type (product series, and level of support for PCS) and type of sales channel. The determination of BESP is made through consultation with and approval by management.

We may occasionally accept returns to address customer satisfaction issues or solution-fit issues even though there is no contractual provision for such returns. We estimate returns for sales to customers based on historical returns rates applied against current-period gross revenues. Specific customer returns and allowances are considered within this estimate. Management also analyzes changes in customer demand and acceptance of products when evaluating the adequacy of returns and sales allowances.

Deferred Revenue

Deferred product revenue relates to arrangements where not all revenue recognition criteria have been met. Deferred services revenue primarily represents PCS contracts billed in advance and revenue is recognized ratably over the service contract term, typically 1 to 5 years.

Shipping and Handling

Shipping and handling charges billed to customers are included in revenue in the period shipped and the related costs are included in cost of revenue.

Research and Development Costs

Research and development efforts are focused on new product development and on developing additional functionality for our existing products. These expenses consist of personnel costs, and to a lesser extent, prototype materials, depreciation and certain allocated facilities and information technology costs. We expense research and development costs as incurred.

Stock-Based Compensation

Stock-based compensation expense is measured on the grant date based on the fair value of the award and recognized on a straight-line basis over the requisite service period. The fair value of restricted stock units (“RSUs”) is estimated using our stock price on the grant date. The fair value of options and employee stock purchase rights is estimated using the Black-Scholes model on the grant date. The Black-Scholes model determines the fair value of share-based payment awards based on assumptions including expected term, stock price volatility, and risk-free interest rate. The fair value of market-performance based restricted stock units (“MSUs”) is valued using the Monte Carlo simulation model, which uses the stock price, expected volatility and risk-free interest rate to determine the fair value.

Warranty Costs

Our appliance hardware and software generally carry a warranty period of 90 days. Estimates of future warranty costs are based on historical returns and the application of the historical return rates to our in-warranty installed base. Warranty costs to repair or replace items sold to customers have been insignificant for the years ended December 31, 2017, 2016 and 2015.

Foreign Currency

The functional currency of our foreign subsidiaries is the U.S. dollar. Transactions denominated in non-functional currencies are remeasured to the functional currency at the average exchange rate for the period. Non-functional currency monetary assets and liabilities are remeasured to the functional currency using the exchange rate in effect at the balance sheet date, and non-monetary assets and liabilities are remeasured at historical exchange rates. Gains and losses related to remeasurement are recorded in interest and other income (expense), net in the consolidated statements of operations.

Income Taxes

We account for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our consolidated financial statements or in our tax returns. Estimates and judgments occur in the calculation of certain tax liabilities and in the determination of the recoverability of certain deferred income tax assets, which arise from temporary differences and carryforwards. Deferred income tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those tax assets are expected to be realized or settled. We regularly assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe, based upon the weight of available evidence, that it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is established through an adjustment to income tax expense.

The factors used to assess the likelihood of realization of our deferred tax assets include our forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. Assumptions represent our best estimates and involve inherent uncertainties and the application of our judgment.

We account for uncertainty in income taxes recognized in our consolidated financial statements by regularly reviewing our tax positions and benefits to be realized. We recognize tax liabilities based upon our estimate of whether, and the extent to which, additional taxes will be due when such estimates are more-likely-than-not to be sustained. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained upon examination by taxing authorities. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Segment Information

An operating segment is a component of an enterprise for which its discrete financial information is available and its operating results are regularly reviewed by chief operating decision maker for resource allocation decisions and performance assessment. Our chief operating decision maker is our Chief Executive Officer.

Our Chief Executive Officer reviews financial information presented on a consolidated basis for purposes of allocating resources and assessing performance of the Company. Accordingly, we have one reportable segment and one operating segment.

Vendor Business Concentration

We rely on third parties to manufacture our hardware appliances and we purchase raw materials from third-party vendors. We outsourced substantially all of our manufacturing services to three independent manufacturers. In addition, we purchase certain strategic component inventory which is consigned to our third-party manufacturers. Other hardware components included in our products are sourced from various suppliers by our manufacturers and are principally industry standard parts and components that are available from multiple vendors.

Concentration of Credit Risk and Significant Customers

Financial instruments that potentially subject us to concentrations of credit risk consist of cash, cash equivalents, marketable securities and accounts receivable. Our cash, cash equivalents and marketable securities are held and invested in high-credit quality financial instruments by recognized financial institutions and therefore subject to minimum credit risk.

Our accounts receivable are unsecured and represent amounts due to us based on contractual obligations of our customers. We mitigate credit risk in respect to accounts receivable by performing periodic credit evaluations based on a number of factors, including past transaction experience, evaluation of credit history and review of the invoicing terms of the contract. We generally do not require our customers to provide collateral to support accounts receivable.

Significant customers, including distribution channel partners and direct customers, are those which represent more than 10% of our total revenue for each period presented, or our gross accounts receivable balance as of each respective balance sheet date. Revenue from our significant customers as a percentage of our total revenue are as follows:

Years Ended December 31,		
2017	2016	2015

Customer A	*	14%	*

* represents less than 10% of total revenue

No customer accounted for 10% of our total gross accounts receivable as of December 31, 2017. Three customers accounted for 16%, 13% and 12% of our total gross accounts receivable as of December 31, 2016. Two customers account for 26% and 11% of our total gross accounts receivable as of December 31, 2015.

Recently Adopted Accounting Guidance

In the first quarter 2017, we adopted ASU 2016-09, Compensation-Stock Compensation (Topic 718): Improvements to

Employee Share -Based Payment Accounting. The primary tax impact of the adoption was the recognition of excess tax benefits in the provision for income taxes rather than additional paid-in capital. The new guidance eliminates the requirement to delay the recognition of excess tax benefits until it reduces current taxes payable. The recognition of previously unrecognized excess tax benefits was adopted on a modified retrospective basis. The unrecognized excess tax benefits of $3.4 million as of January 1, 2017 had no impact on our accumulated deficit balance as we carried a full valuation allowance on the related deferred tax assets. The new guidance also requires companies to record, subsequent to the adoption, excess tax benefits and tax deficiencies in the period they arise. In addition, cash flows related to excess tax benefits will no longer be classified as a financing activity apart from other income tax cash flows. We adopted this change in presentation of excess tax benefits as an operating activity on the statements of cash flows on a prospective basis. The guidance also allows for the employer to repurchase more of an employee’s shares for tax withholding purposes without triggering liability accounting. In addition, the guidance allows for a policy election to account for forfeitures as they occur rather than on an estimated basis. We elected to account for forfeitures as they occur rather than estimate expected forfeiture. The adoption of this standard did not have a material impact on our consolidated financial statements.

Recent Accounting Pronouncements Not Yet Effective

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes most of the existing revenue recognition guidance under U.S. GAAP. The core principle of the standard is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for the goods or services and requires the capitalization of incremental customer acquisition costs and amortization of these costs over the contract period or estimated customer life which will result in the recognition of a contract asset on our consolidated balance sheet. It also requires increased disclosures regarding the nature, amount, timing, and uncertainty of revenues and cash flows arising from contracts with customers.

We will adopt Topic 606 effective January 1, 2018, applying the modified retrospective method to all contracts that were not completed as of January 1, 2018. We expect to record a net reduction to opening accumulated deficit of $12.4 million as of January 1, 2018 due to the cumulative impact of adopting Topic 606 as follows:

- A decrease in total deferred revenue of $4.0 million primarily due to the removal of the current limitation on contingent revenue that would have accelerated revenue recognition for certain of our historical revenue contracts; and

- Recognition of a deferred commissions asset of $8.4 million due to the requirement to recognize incremental customer acquisition costs in our consolidated statement of operations as the related performance obligations are met as compared to the current recognition to expense as incurred.

In addition, the adoption of the standard does not have a significant impact to the provision for income taxes on our consolidated statements of operations, nor does it impact net cash provided by or used in operating, investing, or financing activities on our consolidated statements of cash flows.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). This new accounting standard primarily requires lessees to recognize most leases on their balance sheets but record expenses on their income statements in a manner similar to current accounting. For lessors, the guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. In July 2018, FASB issued ASU No. 2018-11, Topic 842 - Targeted Improvements. The update requires modified retrospective transition, with the option to initially apply the new standard at the adoption date and recognize a cumulative-effect adjustment and elect various practical expedients. This standard is effective for annual periods beginning after December 15, 2018 with early adoption permitted. We will adopt this standard effective January 1, 2019. We are currently evaluating the impact of this guidance on our consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment, which removes the requirement to compare the implied fair value of goodwill with its carrying amount as part of step 2 of the goodwill impairment test. As a result, under this ASU, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the impairment loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. This standard is effective prospectively for annual periods beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed after January 1, 2017. We do not believe this standard will have a material impact on our consolidated financial statements and related disclosures.

In May 2017, the FASB issued ASU No. 2017-09, Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting, to provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. This standard is effective for annual periods beginning after December 15, 2017 and interim periods within that reporting period. Early adoption is permitted, including adoption in any interim period. The amendments will be applied prospectively to an award modified on or after the adoption date. We do not believe this standard will have a material impact on our consolidated financial statements and related disclosures.

In February 2018, the FASB issued ASU No. 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (“AOCI”).” These amendments provide financial statement preparers with an option to reclassify stranded tax effects within AOCI to retained earnings in each period in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act is recorded. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including adoption in any interim period. We are evaluating the impact of adopting this new accounting guidance on our consolidated financial statements.

In March 2018, the FASB issued ASU No. 2018-05, Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin (SAB) No. 118. These amendments add SEC guidance to the FASB Accounting Standards Codification regarding the Tax Cuts and Jobs Act pursuant to the issuance of SAB 118. The amendments are effective upon addition to the FASB Codification. Disclosures related to the effect of the Tax Cuts and Jobs Act and our utilization of SAB 118 appear in Note 9 Income Taxes.

There have been no other recent accounting pronouncements or changes in accounting pronouncements that are of significance or potential significance to us.

2. Restatement of Previously Issued Consolidated Financial Statements

Restatement Background

Subsequent to the issuance of the condensed consolidated financial statements as of September 30, 2017, the Audit Committee of our Board of Directors (the “Audit Committee”) commenced an investigation (the “Investigation”) with the assistance of outside counsel relating to certain accounting and internal control matters at the Company, principally focused on certain revenue recognition matters from the fourth quarter of 2015 through the fourth quarter of 2017 inclusive. The investigation was conducted with the assistance of outside counsel and independent counsel. Counsel retained forensic accountants to assist with their work. The investigation commenced following the identification of violations of the Company's Insider Trading Policy and Code of Conduct by a mid-level employee within the finance department, and as a result it was determined that further review and procedures relating to certain accounting and internal control matters should be undertaken.

During the course of this Investigation, code of conduct breaches and accounting and financial reporting errors were identified. The matters primarily resulted in modification to the timing of the recognition of revenue in a limited number of sale transactions between the Company and its resellers and distributors. The Company determined the need to restate the consolidated financial statements as of and for the year ended December 31, 2016. The Company is also adjusting the consolidated financial statements as of and for the year ended December 31, 2015 to correct identified immaterial errors.

Revenue Recognition Adjustments

During the year ended December 31, 2016, revenue was recognized prematurely at the time, as it was determined that there was an oversight or misuse of facts which indicated that the reseller's or distributor's price was not fixed or determinable, or that collectability was not reasonably assured, because the reseller's or distributor's payment to the Company was contingent on resale of the product or the transaction included extended payment terms beyond the Company's customary terms. During the year ended December 31, 2015, revenue on certain sale transactions was recognized prematurely, as it was determined that there was an oversight of facts that indicated collectability was not reasonably assured, because the reseller's or distributor's payment to the Company was contingent on resale of the product or the transaction included extended payment terms beyond the Company's customary terms.

To correct these errors, the related revenue and cost of revenue were reversed in the period in which the accounting errors took place and, except for one 2016 transaction, have been recognized in subsequent periods when all of the revenue recognition criteria were met. Additionally, certain adjustments to reverse accounts receivable, net of allowances, recognize inventory, and adjust deferred revenue, current, were made to the consolidated balance sheet at the end of the period in which the accounting errors occurred.

Other Adjustments

In addition to the restatement adjustments described above, we have identified other revenue and expense classification errors that are not material, individually or in the aggregate that have been corrected in connection with the restatement.

Tax effect of restatement adjustments

The Company recorded adjustments to its deferred taxes as a result of the restatement. The overall impact of the restatement is an increase to deferred taxes with the corresponding increase to the valuation allowance with no impact to the effective tax rate or income tax expense.

Impact of the Restatement

The following table presents the consolidated balance sheet as previously reported, restatement adjustments and the consolidated balance sheet as restated at December 31, 2016 and 2015 (in thousands):

	December 31, 2016		
	As Previously Reported	Revenue Recognition Adjustments	As Restated
Current Assets:			
Accounts receivable	$66,755	$ (5,468)	$61,287
Inventory	$15,070	$ 779	$15,849
Prepaid expenses and other current assets	$5,137	$ 84	$5,221
Total current assets	$201,309	$ (4,605)	$196,704
Total Assets	$221,338	$ (4,605)	$216,733
Current Liabilities:			
Deferred revenue, current	$61,334	$ (1,291)	$60,043
Total current liabilities	$102,710	$ (1,291)	$101,419
Total Liabilities	$135,272	$ (1,291)	$133,981
Accumulated deficit	$(242,759)	$ (3,314)	$(246,073)
Total Stockholders’ Equity	$86,066	$ (3,314)	$82,752
Total Liabilities and Stockholders’ Equity	$221,338	$ (4,605)	$216,733

	December 31, 2015		
	As Previously Reported	Revenue Recognition Adjustments	As Restated
Current Assets:			
Accounts receivable	$57,778	$ (3,025)	$54,753
Inventory	$18,291	$ 366	$18,657
Total current assets	$179,250	$ (2,659)	$176,591
Total Assets	$192,551	$ (2,659)	$189,892
Current Liabilities:			
Deferred revenue, current	$49,572	$ (796)	$48,776
Total current liabilities	$87,837	$ (796)	$87,041
Total Liabilities	$112,483	$ (796)	$111,687

Accumulated deficit	$(221,819)	$ (1,863)	$(223,682)
Total Stockholders' Equity	$80,068	$ (1,863)	$78,205
Total Liabilities and Stockholders' Equity	$192,551	$ (2,659)	$189,892

The following tables present the consolidated statement of operations as previously reported, restatement adjustments and the consolidated statement of operations as restated for the years ended December 31, 2016 and 2015 (in thousands, except per share amounts):

	Year Ended December 31, 2016			
	As Previously Reported	Revenue Recognition Adjustments	Other Adjustments	As Restated
Revenue:				
Products	$153,920	$ (2,858)	$ 1,246	$152,308
Services	76,083	152	(1,246)	74,989
Total revenue	230,003	(2,706)	—	227,297
Cost of revenue:				
Products	37,680	(497)	337	37,520
Services	17,230	—	(337)	16,893
Total cost of revenue	54,910	(497)	—	54,413
Gross profit	$175,093	$ (2,209)	$ —	$172,884
Operating expenses:				
General and administrative	$27,063	$ (758)	$ —	$26,305
Total operating expenses	$194,212	$ (758)	$ —	$193,454
Loss from operations	$(19,119)	$ (1,451)	$ —	$(20,570)
Loss before income taxes	$(20,183)	$ (1,451)	$ —	$(21,634)
Net loss	$(20,940)	$ (1,451)	$ —	$(22,391)
Net loss per share:				
Basic and diluted	$(0.32)			$(0.34)
Weighted-average shares used in computing net loss per share:				
Basic and diluted	65,701			65,701

	Year Ended December 31, 2015			
	As Previously Reported	Revenue Recognition Adjustments	Other Adjustments	As Restated
Revenue:				
Products	$138,301	$ (2,193)	$ (1,177)	$134,931
Services	60,654	(264)	964	61,354
Total revenue	198,955	(2,457)	(213)	196,285
Cost of revenue:				
Products	33,096	(366)	33	32,763
Services	15,672	—	(33)	15,639
Total cost of revenue	48,768	(366)	—	48,402
Gross profit	$150,187	$ (2,091)	$ (213)	$147,883
Operating expenses:				
General and administrative	$27,055	$ (228)	$ (213)	$26,614
Total operating expenses	$188,633	$ (228)	$ (213)	$188,192
Loss from operations	$(38,446)	$ (1,863)	$ —	$(40,309)
Loss before income taxes	$(39,287)	$ (1,863)	$ —	$(41,150)
Net loss	$(40,034)	$ (1,863)	$ —	$(41,897)
Net loss per share:				
Basic and diluted	$(0.64)			$(0.67)
Weighted-average shares used in computing net loss per share:				
Basic and diluted	62,428			62,428

The following tables present the consolidated statement of cash flows as previously reported, restatement adjustments, and the consolidated statement of cash flows as restated for the years ended December 31, 2016 and 2015 (in thousands):

	Year Ended December 31, 2016		
	As Previously Reported	Revenue Recognition Adjustments	As Restated
Cash flows from operating activities:			
Net loss	$(20,940)	$ (1,451)	$(22,391)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Provision for doubtful accounts and sales returns	$1,731	$ (152)	$1,579
Changes in operating assets and liabilities:			
Accounts receivable, net	$(11,319)	$ 2,595	$(8,724)
Inventory	$892	$ (413)	$479
Prepaid expenses and other assets	$(96)	$ (84)	$(180)
Deferred revenue	$20,104	$ (495)	$19,609
Net cash provided by operating activities	$18,778	$ —	$18,778

	Year Ended December 31, 2015		
	As Previously Reported	Revenue Recognition Adjustments	As Restated
Cash flows from operating activities:			
Net loss	$(40,034)	$ (1,863)	$(41,897)
Changes in operating assets and liabilities:			
Accounts receivable, net	$(5,977)	$ 3,025	$(2,952)

Inventory	$(430)	$ (366)	$(796)
Deferred revenue	$15,584	$ (796)	$14,788
Net cash provided by operating activities	$3,391	$ —	$3,391

The only change to the consolidated statement of comprehensive loss and the consolidated statement of stockholders' equity for the years ended December 31, 2016 and 2015 as a result of the restatements is due to the changes in net loss. There was no cumulative effect of the errors as of January 1, 2015, the beginning of the earliest period presented. As such, no tables are presented relating to the restatement adjustments. Refer to the consolidated statement of comprehensive loss and the consolidated statement of stockholders' equity as restated.

3. Marketable Securities and Fair Value Measurements

Marketable Securities

Marketable securities, classified as available-for-sale, consisted of the following (in thousands):

	December 31, 2017				December 31, 2016			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	$17,000	$ 6	$ (1)	$17,005	$12,499	$ 9	$ —	$12,508
Corporate securities	39,154	1	(76)	39,079	42,765	9	(42)	42,732
U.S. Treasury and agency securities	5,744	—	(19)	5,725	5,190	—	(14)	5,176
Commercial paper	9,225	1	(2)	9,224	11,470	1	(2)	11,469
Asset-backed securities	13,567	—	(33)	13,534	13,493	—	(6)	13,487
	$84,690	$ 8	$ (131)	$84,567	$85,417	$ 19	$ (64)	$85,372

During the years ended December 31, 2017 and 2016, we did not reclassify any amount to earnings from accumulated other comprehensive loss related to unrealized gains or losses.

The following table summarizes the cost and estimated fair value of marketable securities based on stated effective maturities as of December 31, 2017 (in thousands):

	Amortized Cost	Fair Value
Less than 1 year	$ 63,219	$63,159
Mature in 1 - 3 years	21,471	21,408
	$ 84,690	$84,567

All available-for-sale securities have been classified as current because they are available for use in current operations.

Marketable securities in an unrealized loss position consisted of the following (in thousands):

As of December 31, 2017	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Certificates of deposit	$2,999	$ (1)	$—	$ —	$2,999	$ (1)
Corporate securities	36,079	(74)	1,499	(2)	37,578	(76)
U.S. Treasury and agency securities	2,246	(2)	3,479	(17)	5,725	(19)
Commercial paper	4,232	(2)	—	—	4,232	(2)
Asset-backed securities	11,415	(32)	728	(1)	12,143	(33)
	$56,971	$ (111)	$5,706	$ (20)	$62,677	$ (131)

As of December 31, 2016	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Corporate securities	$28,537	$ (42)	$ —	$ —	$28,537	$ (42)
U.S. Treasury and agency securities	5,176	(14)	—	—	5,176	(14)
Commercial paper	8,974	(2)	—	—	8,974	(2)
Asset-backed securities	10,664	(6)	—	—	10,664	(6)
	$53,351	$ (64)	$ —	$ —	$53,351	$ (64)

Based on evaluation of securities that have been in a continuous loss position, we did not recognize any other-than-temporary impairment charges during the years ended December 31, 2017 and 2016.

Fair Value Measurements

The following is a summary of our cash, cash equivalents and marketable securities measured at fair value on a recurring basis (in thousands):

	December 31, 2017				December 31, 2016				December 31, 2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash	$34,453	$—	$ —	$34,453	$18,672	$—	$ —	$18,672	$27,036	$ —	$ —	$27,036
Cash equivalents	12,114	—	—	12,114	10,303	—	—	10,303	71,081	—	—	71,081
Certificates of deposit	—	17,005	—	17,005	—	12,508	—	12,508	—	—	—	—
Corporate securities	—	39,079	—	39,079	—	42,732	—	42,732	—	—	—	—
U.S. Treasury and agency securities	—	5,725	—	5,725	—	5,176	—	5,176	—	—	—	—
Commercial paper	—	9,224	—	9,224	—	11,469	—	11,469	—	—	—	—
Asset-backed securities	—	13,534	—	13,534	—	13,487	—	13,487	—	—	—	—
	$46,567	$84,567	$ —	$131,134	$28,975	$85,372	$ —	$114,347	$98,117	$ —	$ —	$98,117

4. Consolidated Financial Statement Details

Allowance for Doubtful Accounts

	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Allowance for doubtful accounts, beginning balance	$1,920	$ 2,660	$ 1,904
Charged to expenses	364	407	1,363
Write-offs	(1,301)	(1,147)	(607)
Allowance for doubtful accounts, ending balance	$983	$ 1,920	$ 2,660

Inventory

	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Raw materials	$6,643	$ 6,669	$ 9,417
Finished goods	10,934	9,180	9,240
Total inventory	$17,577	$ 15,849	$ 18,657

Property and Equipment, Net

	Useful Life	December 31, 2017	December 31, 2016	December 31, 2015
	(in years)	(in thousands)		
Equipment	1-3	$47,817	$ 41,815	$ 35,836
Software	1-3	3,988	3,801	3,548
Furniture and fixtures	1-3	950	865	864
Leasehold improvements	2-8	3,824	2,724	2,492
Construction in progress		—	258	83
Property and equipment, gross		56,579	49,463	42,823
Less: accumulated depreciation		(46,666)	(41,244)	(33,920)
Property and equipment, net		$9,913	$ 8,219	$ 8,903

Depreciation expense on property and equipment was $7.1 million, $7.6 million and $8.6 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Intangible Assets

Purchased intangible assets, net, consisted of the following (in thousands):

	December 31, 2017		
	Cost	Accumulated Amortization	Net
Developed technology	$5,050	$ (1,515)	$3,535
Patents	2,936	(1,281)	1,655
Total	$7,986	$ (2,796)	$5,190

	December 31, 2016		
	Cost	Accumulated Amortization	Net
Developed technology	$5,050	$ (505)	$4,545
Patents	2,936	(848)	2,088
Total	$7,986	$ (1,353)	$6,633

	December 31, 2015		
	Cost	Accumulated Amortization	Net
Patents	$1,436	$ (641)	$795

Amortization expense related to purchased intangible assets was $1.4 million, $0.7 million and $0.1 million for the years ended December 31, 2017, 2016 and 2015, respectively. Purchased intangible assets will be amortized over a remaining weighted average useful life of 3.6 years.

Future amortization expense for purchased intangible assets as of December 31, 2017 is as follows (in thousands):

Fiscal Years Ending December 31,	
2018	$1,442
2019	1,442
2020	1,442
2021	864
	$5,190

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Accrued Liabilities

	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Accrued compensation and benefits	$13,828	$ 22,326	$ 18,134
Accrued tax liabilities	2,985	3,340	4,520
Other	5,022	5,859	5,103
Total accrued liabilities	$21,835	$ 31,525	$ 27,757

Deferred Revenue

	December 31, 2017	December 31, 2016	December 31, 2015
	(in thousands)		
Deferred revenue:			
Products	$6,161	$ 5,054	$ 3,568
Services	88,476	86,563	68,440
Total deferred revenue	94,637	91,617	72,008
Less: current portion	(61,858)	(60,043)	(48,776)
Non-current portion	$32,779	$ 31,574	$ 23,232

5. Credit Facility

In November 2016, we entered into a loan and security agreement (the "2016 Credit Facility") with Silicon Valley Bank ("SVB") as the lender. The 2016 Credit Facility provides a three-year, $25.0 million revolving credit facility, which includes a maximum of $25.0 million letter of credit subfacility. When the balance of our cash, cash equivalents and marketable securities minus outstanding revolving loans and letters of credit equals or exceeds $50.0 million, loans may be advanced under the 2016 Credit Facility up to the full $25.0 million. When our net cash falls below $50.0 million, loans may be advanced under the 2016 Credit Facility based on a borrowing base equal to a specified percentage of the value of our eligible accounts receivable. The loans bear interest, at our option, at (i) the prime rate reported in The Wall Street Journal, minus 0.50% or (ii) a LIBOR rate determined in accordance with the 2016 Credit Facility, plus 2.50%. We are required to pay customary closing fees, commitment fees and letter of credit fees for a facility of this size and type.

Our obligations under the 2016 Credit Facility are secured by substantially all of our assets, excluding our intellectual property. The 2016 Credit Facility contains customary affirmative and negative covenants. In addition, the 2016 Credit Facility requires us to maintain compliance with an adjusted quick ratio of not less than 1:50:1.00, as determined in accordance with the 2016 Credit Facility. We had no outstanding balance under the 2016 Credit Facility and were in compliance with all financial statement covenants as of December 31, 2017 except for the annual audited financial statement with an unqualified opinion no later than 180 days after the last day of the fiscal year. However, SVB has granted a forbearance on this requirement through August 31, 2018.

6. Commitments and Contingencies

Legal Proceedings

Litigation

From time to time, we may be party or subject to various legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. Some of these proceedings involve claims that are subject to substantial uncertainties and unascertainable damages. We make a provision for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Unless otherwise specifically disclosed in this note, we have determined that no provision for liability nor disclosure is required related to any claim against us because: (a) there is not a reasonable possibility that a loss exceeding amounts already recognized (if any) may be incurred with respect to such claim; (b) a reasonably possible loss or range of loss cannot be estimated; or (c) such estimate is immaterial.

On June 24, 2015, our directors and certain of our officers were named as defendants in a putative derivative lawsuit filed in the Superior Court of the State of California, County of Santa Clara, captioned Hornung v. Chen, et al., 1-15-CV-282286 (the “Derivative Action”). We were also named as a nominal defendant. The complaint sought to allege breaches of fiduciary duties and other related claims, arising out of allegations that our officers and directors caused us to infringe patents and intellectual property, improperly approved the settlement of prior litigation, failed to adopt and implement effective internal controls, and caused us to issue false and misleading statements in connection with our IPO. Plaintiff sought unspecified compensatory damages and other equitable relief. On May 24, 2016, all parties entered into a memorandum of understanding reflecting an agreement in principle to settle all claims against all defendants asserted in the action, which provides that we implement certain corporate governance measures following final settlement approval. The parties subsequently executed a stipulation of settlement, dated August 26, 2016, and filed a motion with the Court seeking preliminary approval of the settlement. On November 22, 2016, the Court issued an order preliminarily approving the settlement. Following a February 24, 2017 hearing, the Court on March 1, 2017 issued an order granting final approval of the parties’ settlement, as well as plaintiff’s counsel’s motion for an award of attorneys’ fees. The settlement released all claims asserted against all defendants and included the dismissal of all claims against all defendants without any liability or wrongdoing attributed to them.

On March 22, 2018, the Company, our Chief Executive Officer, our Chief Financial Officer, and certain former officers, were named as defendants in a putative class action lawsuit filed in the United States District Court for the Northern District of California, captioned Shah v. A10 Networks, Inc. et al., 3:18-cv-01772-VC (the “Securities Action”). The complaint in the Securities Action alleges claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder, and seeks unspecified damages and other relief. A lead plaintiff remains to be appointed and a consolidated complaint remains to be filed.

On May 30, 2018, certain of our current and former directors and officers were named as defendants in a putative shareholder derivative lawsuit filed in the United States District Court for the Northern District of California, captioned Moulton v. Chen et al., 3:18-cv-03223-VC (the “Derivative Action”). We were also named as a nominal defendant. The complaint in the Derivative Action alleges breaches of fiduciary duties and other related claims in connection with purported misrepresentations related to internal controls and revenues and failures to ensure that financial statements were made in accordance with generally accepted accounting principles. Plaintiff seeks unspecified damages allegedly sustained by the Company, restitution, and other relief.

Investigations

The U.S. Securities and Exchange Commission (“SEC”) is conducting a private investigation into possible violations of Section 17(a) of the Securities Act of 1933 and Sections 10(b), 13(a), and 13(b) of the Securities Exchange Act of 1934 (“Exchange Act”) and Rules 10b-5, 12b-20, 13a-1, 13a-11, 13a-13, 13a-14, 13a-15, and 13b2-1 thereunder. The Company is cooperating with the SEC regarding this investigation. The Company is unable to predict the duration, scope or outcome of the investigation, but an adverse outcome is reasonably possible. In such an event, the Company could be required to pay fines and sanctions and/or implement additional remedial measures. However, the Company is not able to estimate the likelihood or a reasonable range of possible loss.

Leases and Other Commitments

We lease various operating spaces in the United States, Asia, and Europe under non-cancellable operating lease arrangements that expire on various dates through April 2022. These arrangements require us to pay certain operating expenses, such as taxes, repairs, and insurance and contain renewal and escalation clauses. We recognize rent expense under these arrangements on a straight-line basis over the term of the lease.

We have open purchase commitments with third-party contract manufacturers with facilities in Taiwan to supply nearly all of our finished goods inventories, spare parts, and accessories. These purchase orders are expected to be paid within one year of the issuance date.

The following table summarizes our non-cancellable operating leases and unconditional purchase obligations as of December 31, 2017 (in thousands):

Years Ending December 31,	Leases and Other Contractual Obligations	Purchase Commitments	Total
2018	$ 4,001	$ 10,368	$14,369
2019	3,701	—	3,701
2020	1,698	—	1,698
2021	1,193	—	1,193
2022	307	—	307
	$ 10,900	$ 10,368	$21,268

Rent expense was $4.1 million, $3.5 million and $3.5 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Guarantees and Indemnifications

In the normal course of business, we provide indemnifications to customers against claims of intellectual property infringement made by third parties arising from the use of our products. Other guarantees or indemnification arrangements include guarantees of product and service performance, and standby letters of credit for lease facilities and corporate credit cards. We have not recorded a liability related to these indemnifications and guarantee provisions and our guarantees and indemnification arrangements have not had any significant impact on our consolidated financial statements to date.

7. Equity Award Plans

Equity Incentive Plans

2014 Equity Incentive Plan

Our 2014 Equity Incentive Plan (the “2014 Plan”) provides for the granting of stock options, restricted stock awards, restricted stock units (“RSUs”), performance-based RSUs (“PSUs”), stock appreciation rights, performance units and performance shares to our employees, consultants and members of our board of directors. In June 2015, our board of directors adopted, and our stockholders approved an amendment and restatement of the 2014 Plan, which increased the number of shares available for issuance under the 2014 Plan by the number of shares granted under the 2008 Stock Plan (the “2008 Plan”) that were or may in the future be canceled or otherwise forfeited or repurchased after March 20, 2014. A maximum of 8,310,566 shares may become available from such awards granted under the 2008 Plan for issuance under the 2014 Plan.

As of December 31, 2015, we had 3,364,304 shares available for future grant. Annually, the shares authorized for the 2014 Plan will increase by the least of (i) 8,000,000 shares, (ii) 5% of the outstanding shares of common stock on the last day of our immediately preceding fiscal year, or (iii) such other amount as determined by our board of directors. On January 1, 2016, the number of shares in the 2014 Plan was increased by 3,211,211 shares, representing 5% of the prior year end’s common stock outstanding. In addition, 1,640,324 shares that had been subject to awards granted under the 2008 Plan that had been canceled, forfeited or repurchased during the year ended December 31, 2015 became available for issuance under the 2014 Plan.

As of December 31, 2016, we had 4,241,980 shares available for future grant. On January 1, 2017, the number of shares in the 2014 Plan was increased by 3,394,376 shares, representing 5% of the prior year end's common stock outstanding. In addition, 266,799 shares that had been subject to awards granted under the 2008 Plan that had been canceled, forfeited or repurchased during the year ended December 31, 2016 became available for issuance under the 2014 Plan.

As of December 31, 2017, we had 6,777,353 shares available for future grant. On January 1, 2018, the number of shares in the 2014 Plan was increased by 3,584,623 shares, representing 5% of the prior year end's common stock outstanding. In addition 149,332 shares that had been subject to awards granted under the 2008 Plan that had been canceled, forfeited or repurchased during the year ended December 31, 2017 became available for issuance under the 2014 Plan.

Vesting periods of awards granted under the 2014 Plan are determined by our board of directors or other committees responsible for administering the 2014 Plan (the “Plan Administrator”). The Plan Administrator determines the contractual terms of awards granted under the 2014 Plan, provided that incentive stock options and stock appreciation rights granted expire no more than ten years from the grant date. In the case of an incentive stock option granted to an employee, who at the time of grant, owns stock representing more than 10% of the total combined voting power of all classes of stock, the per share exercise price shall be no less than 110% of the fair market value per share on the date of grant, and the incentive stock option shall expire no later than five years from the date of grant. For incentive stock options granted to any other employee, and nonstatutory stock options and stock appreciation rights granted to employees, consultants, or members of our board of directors, the per share exercise price shall be no less than 100% of the fair market value per share on the date of grant.

2014 Employee Stock Purchase Plan

The 2014 Employee Stock Purchase Plan (the “2014 Purchase Plan”) provides for twenty-four month offering periods with four six-month purchase periods in each offering period. Employees purchase shares in each purchase period at 85% of the market value of our common stock at the beginning of the offering period or the end of the purchase period, whichever is lower. If the market value of our common stock at the end of the purchase period is less than the market value at the beginning of the offering period, participants will be withdrawn from the then current offering period following their purchase of shares, and automatically will be enrolled in the immediately following offering period. Participants may contribute up to 15% of their eligible compensation, subject to certain limits.

Employees purchased 1,038,878 shares at an average price of $6.32, 1,080,142 shares at an average price of $3.93 and 1,105,015 shares at an average price of $3.56 during the years ended December 31, 2017, 2016 and 2015, respectively. The intrinsic value of shares purchased during the years ended December 31, 2017, 2016 and 2015 was $1.6 million and $3.5 million and $3.7 million, respectively. The intrinsic value is calculated as the difference between the market value on the date of purchase and the purchase price of the shares. As of December 31, 2017, 3,065,182 shares were available for future issuance under the 2014 Purchase Plan.

Early Exercise of Stock Options

We have allowed certain employees and directors to exercise options granted prior to vesting. The unvested shares were subject to our repurchase right at the original purchase price. The proceeds from the early exercise of stock options initially were recorded in other non-current liabilities and reclassified to common stock as our repurchase right lapses. As of December 31, 2016 and 2015, 14,307 and 51,884 shares were subject to repurchase at an aggregate price of $0.1 million and $0.3 million, respectively. As of December 31, 2017, there were no unvested shares subject to repurchase.

Option Exchange Program

On November 19, 2015, we commenced an option exchange which permitted certain employees and service providers to surrender certain outstanding stock options in exchange for replacement RSUs with a lesser number of shares, subject to a different vesting schedule. This option exchange was completed on December 17, 2015. A total of 344,248 options to purchase shares of common stock with a weighted-average exercise price of $13.58 per share were canceled and replaced with 109,743 RSUs with per share market value of $6.76, on December 17, 2015. The replacement RSUs started to vest on the one-year anniversary of the grant date. We accounted for this option exchange as a stock option modification in accordance with the provisions of ASC 718 Share-Based Compensation. We are recording the incremental expense of $56,000 in addition to the remaining expense attributable to the exchanged stock options over the vesting period of the new awards.

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Stock-based Compensation

A summary of our stock-based compensation expense is as follows (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Stock-based compensation by type of award:			
Stock options	$2,705	$4,153	$5,565
Stock awards	11,421	12,567	8,871
Employee stock purchase rights	3,077	202	2,425
	$17,203	$16,922	$16,861
Stock-based compensation by category of expense:			
Cost of revenue	$1,362	$1,105	$1,533
Sales and marketing	6,075	7,006	7,735
Research and development	6,343	5,732	5,437
General and administrative	3,423	3,079	2,156
	$17,203	$16,922	$16,861

As of December 31, 2017, we had $37.0 million of unrecognized stock-based compensation expense related to unvested stock-based awards which will be recognized over a weighted-average period of 2.3 years. Included within unrecognized stock-based compensation expense as of December 31, 2017 was $5.2 million related to our ESPP. In March 2018, as a result of a suspension of the 2014 Purchase Plan due to our non-timely filing status, all unrecognized stock-based compensation expense related to ESPP was accelerated and recognized within the consolidated statement of operations.

The fair values of the options and employee stock purchase rights were estimated as of the grant date using the Black-Scholes option-pricing model with the following assumptions:

	Options			Employee Stock Purchase Rights		
	Years Ended December 31,			Years Ended December 31,		
	2017	2016	2015	2017	2016	2015
Expected term (in years)	4.7	4.9	4.8	1.3	1.3	1.3
Risk-free interest rate	2.0%	1.4%	1.6%	1.4%	0.8%	0.5%
Expected volatility	43%	49%	50%	39%	42%	41%
Dividend rate	—%	—%	—%	—%	—%	—%

- Expected Term. We estimate the expected life of options based on an analysis of our historical experience of employee exercise and post-vesting termination behavior considered in relation to the contractual life of the option. The expected term for the employee stock purchase rights is based on the term of the purchase period.

- Risk-Free Interest Rate. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected terms of stock options and the employee stock purchase rights.

- Expected Volatility. Due to the limited trading history of our own common stock, we determined the share price volatility factor based on a combination of the historical volatility of our own common stock and the historical volatility of our peer group for the stock options. For the employee stock purchase rights, we used the historical volatility of our own common stock.

- Dividend Rate. The expected dividend was assumed to be zero as we have never paid dividends and do not anticipate paying any dividends in the foreseeable future.

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Stock Options

The following table summarizes our stock option activities and related information:

	Number of Shares (thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (thousands)
Outstanding as of December 31, 2016	7,868	$ 4.82		
Granted	310	$ 8.11		
Exercised	(1,587)	$ 3.58		
Canceled (2)	(573)	$ 6.35		
Outstanding as of December 31, 2017	6,018	$ 5.18	4.9	$ 17,169
Vested and exercisable as of December 31, 2017	4,974	$ 5.03	4.2	$ 15,102

(1) Includes 266,799 shares of canceled stock options from the 2008 Plan that became available for issuance under the 2014 Plan.
(2) Includes 149,332 shares of canceled stock options from the 2008 Plan that became available for issuance under the 2014 Plan.

As of December 31, 2017, the aggregate intrinsic value represents the excess of the closing price of our common stock of $7.72 over the exercise price of the outstanding in-the-money options.

The following table provides information pertaining to our stock options (in thousands, except weighted-average fair values):

	Years Ended December 31,		
	2017	2016	2015
Fair value of options granted	$974	$1,603	$869
Weighted-average fair value of options granted	$3.14	$2.38	$2.13
Intrinsic value of options exercised	$8,013	$5,990	$2,299

Stock Awards

We have granted RSUs to our employees, consultants and members of our board of directors, and PSUs and market performance-based stock restricted stock unit awards (“MSUs”) to certain executives.

In 2014 and 2015, we granted 540,000 MSUs and 40,000 MSUs, respectively, to certain executives. These MSUs will vest if the closing price of our common stock remains above certain predetermined target prices for 20 consecutive trading days within a 4-year period following the grant date, subject to continued service by the award holder. No MSUs were vested as of December 31, 2017.

In February 2016, we granted 547,000 PSUs with certain financial and operational targets. Actual performance, as measured at the time and prior to the restatement of the 2016 financial statements, resulted in participants achieving 80% of target. Given the PSUs did not contain explicit or implicit claw back rights, there was no change to stock-based compensation expense for the impact of the restatement. As of December 31, 2017, 103,601 shares had vested, 162,900 shares were forfeited, and the remaining shares will vest in annual tranches through February 2020 subject to continued service vesting requirements.

In October 2016, we granted 60,641 PSUs with certain financial and operational targets. To the extent they become eligible to vest upon achievement of the performance targets, these PSUs additionally are subject to service condition vesting requirements with scheduled vesting dates of March 2017 through June 2018. As of December 31, 2017, 12,128 shares had vested, 30,321 shares were forfeited, and the remaining shares were unvested and are eligible to vest based on achievement of performance targets.

In March 2017, we granted 395,383 PSUs with certain financial targets. The targets were not attained and no stock-based compensation expense was recognized in the consolidated financial statements for the year ended December 31, 2017.

The following table summarizes our stock award activities and related information:

	Number of Shares (thousands)	Weighted-Average Grant Date Fair Value	Weighted-Average Remaining Vesting Term (Years)	Aggregate Intrinsic Value (thousands)
Outstanding as of December 31, 2016	5,959	$ 5.81		
Granted	3,221	$ 8.55		
Released	(1,631)	$ 6.36		
Canceled	(1,981)	$ 6.80		
Outstanding as of December 31, 2017	5,568	$ 6.88	1.5	$ 42,984

The aggregate intrinsic value of outstanding awards is calculated based on the closing price of our common stock of $7.72 on December 31, 2017.

The aggregate fair value of stock awards released as of the respective vesting dates was approximately $14.0 million, $9.7 million and $5.6 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Stock Repurchase Program

On October 27, 2016, our board of directors authorized a share repurchase program for up to $20.0 million of our common stock over 12 months. Under the repurchase authorization, shares may be purchased from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases, privately negotiated transactions or other means. During the years ended December 31, 2017 and 2016, we repurchased 451,259 shares at an average price of $6.81 and 226,676 shares at an average price of $7.92, respectively, as part of this publicly announced program which expired on October 23, 2017. The repurchased shares were retired upon delivery to us.

On October 23, 2017, our board of directors authorized another share repurchase program for up to $20.0 million of our common stock over 12 months. Under the repurchase authorization, shares may be purchased from time to time, subject to general business and market conditions and other investment opportunities, through open market purchases, privately negotiated transactions or other means. The repurchase authorization may be commenced, suspended or discontinued at any time at our discretion. No shares were repurchased under this repurchase program as of December 31, 2017.

8. Net Loss Per Share

Basic net loss per share is computed using the weighted average number of common shares outstanding for the period. Diluted net loss per share is computed using the weighted average number of common shares outstanding for the period plus potential dilutive common shares, including stock options, RSUs and employee stock purchase rights, unless the potential common shares are anti-dilutive. Since we had net losses in the years ended December 31, 2017, 2016 and 2015, none of the potential dilutive common shares were included in the computation of diluted shares for these periods, as inclusion of such shares would have been anti-dilutive.

The following table presents common shares related to potentially dilutive shares excluded from the calculation of diluted net loss per share as their effect would have been anti-dilutive (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Stock options, RSUs and employee stock purchase rights	12,184	13,631	10,124
Common stock subject to repurchase	—	14	52
	12,184	13,645	10,176

9. Income Taxes

The geographical breakdown of loss before provision for income taxes is as follows (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Domestic loss	$(13,752)	$(24,429)	$(43,540)
Foreign income	4,207	2,795	2,390
Loss before provision for income taxes	$(9,545)	$(21,634)	$(41,150)

The provision for income taxes consists of the following (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Current provision for income taxes:			
State	$48	$41	$55
Foreign	1,023	1,009	675
Total current	1,071	1,050	730
Deferred tax expense (benefit):			
Federal	26	17	—
Foreign	109	(310)	17
Total deferred	135	(293)	17
Provision for income taxes	$1,206	$757	$747

The reconciliation of the statutory federal income tax and our effective income tax is as follows (in thousands):

	Years Ended December 31,					
	2017		2016		2015	
	Amount	Percentage	Amount	Percentage	Amount	Percentage
Tax at statutory rate	$(3,245)	34.0 %	$(7,356)	34.0 %	$(13,991)	34.0 %
State tax - net of federal benefits	32	(0.3)	27	(0.1)	36	(0.1)
Foreign rate differential	(655)	6.9	(666)	3.1	(422)	1.0
Changes in federal valuation allowance	(22,672)	237.5	7,626	(35.3)	12,559	(30.5)
Tax rate change	28,185	(295.3)	—	—	—	—
Stock-based compensation	(1,169)	12.2	88	(0.4)	1,845	(4.5)
Other permanent items	347	(3.6)	583	(2.7)	415	(0.9)
Expenses for uncertain tax positions	311	(3.3)	358	(1.7)	227	(0.6)
Other	72	(0.7)	97	(0.4)	78	(0.2)
Provision for income taxes	$1,206	(12.6)%	$757	(3.5)%	$747	(1.8)%

The tax effects of temporary differences that give rise to significant portions of deferred tax assets (liabilities) are as follows (in thousands):

	December 31, 2017	December 31, 2016	December 31, 2015
Deferred tax assets:			
Net operating loss carryforwards	$ 37,326	$ 48,731	$ 47,034
Research and development credits, net of uncertain tax positions	17,119	12,953	9,517
Accruals, reserves, and other	13,992	20,914	17,835
Stock-based compensation	2,994	4,055	2,700
Depreciation and amortization	1,954	2,892	2,735
Gross deferred tax assets	73,385	89,545	79,821
Valuation allowance	(72,458)	(88,095)	(78,291)
Total deferred tax assets	927	1,450	1,530
Deferred tax liabilities:			
Other	(28)	(431)	(805)
Total deferred tax liabilities	(28)	(431)	(805)
Net deferred tax assets	$ 899	$ 1,019	$ 725

Recognition of deferred tax assets is appropriate when realization of these assets is more likely than not. Based upon the weight of available evidence, which includes our historical operating performance and the recorded cumulative net losses in prior fiscal periods, we recorded a full valuation allowance of $72.5 million, $88.1 million and $78.3 million against the U.S. net deferred tax assets as of December 31, 2017, 2016 and 2015, respectively. For the years ended December 31, 2017, 2016 and 2015, the valuation allowance decreased by $15.6 million, increased by $9.8 million and increased by $14.7 million, respectively.

In the first quarter 2017, we adopted ASU 2016-09, Compensation-Stock Compensation (Topic 718): Improvements to Employee Share -Based Payment Accounting. The primary tax impact of the adoption was the recognition of excess tax benefits in the provision for income taxes rather than additional paid-in capital. The new guidance eliminates the requirement to delay the recognition of excess tax benefits until it reduces current taxes payable. The recognition of previously unrecognized excess tax benefits was adopted on a modified retrospective basis. The unrecognized excess tax benefits of $3.4 million as of January 1, 2017 had no impact on our accumulated deficit balance as we carried a full valuation allowance on the related deferred tax assets. The new guidance also requires companies to record, subsequent to the adoption, excess tax benefits and tax deficiencies in the period they arise. In addition, cash flows related to excess tax benefits will no longer be classified as a financing activity apart from other income tax cash flows. We adopted this change in presentation of excess tax benefits as an operating activity on the statements of cash flows on a prospective basis.

As of December 31, 2017, 2016 and 2015, we had U.S. federal net operating loss carryforwards of $152.3 million, $143.3 million and $134.7 million, and state net operating loss carryforwards of $73.6 million, $70.1 million and $69.1 million, respectively. The federal net operating loss carryforwards will expire at various dates beginning in the year ending December 31, 2027, if not utilized. The state net operating losses expire in various years ending between 2018 and 2037, if not utilized.

Additionally, as of December 31, 2017, 2016 and 2015, we had U.S. federal research and development credit carryforwards of $10.3 million, $8.5 million and $6.4 million, and state research and development credit carryforwards of $10.9 million, $8.8 million and $6.4 million, respectively. The federal credit carryforwards will begin to expire at various dates beginning in 2025 while the state credit carryforwards can be carried over indefinitely.

Utilization of the net operating losses and credit carryforwards may be subject to an annual limitation provided for in the Internal Revenue Code Section 382 and similar state codes. Any annual limitation could result in the expiration of net operating loss and credit carryforwards before utilization.

With respect to our undistributed foreign subsidiaries' earnings we consider those earnings to be indefinitely reinvested and, accordingly, no related provision for U.S. federal and state income taxes has been provided. Upon distribution of those earnings' in the form of dividends or otherwise, we may be subject to both U.S. income taxes subject to an adjustment for foreign tax credits and withholding taxes in the various countries. As of December 31, 2017, 2016 and 2015, the undistributed earnings approximated $8.4 million, $5.1 million and $3.9 million, respectively. The determination of the future tax consequence of the remittance of these earnings is not practicable.

Uncertain Tax Positions

As of December 31, 2017, 2016 and 2015, we had gross unrecognized tax benefits of $3.8 million, $3.4 million and $2.6 million, respectively. We have accrued net interest expense of $14,000 (i.e., there was $30,000 of gross accrued interest expense offset by $16,000 of interest released due to a lapse of statute of limitations) related to unrecognized tax benefits reflected in the consolidated financial statements for the year ended December 31, 2017. Our policy for classifying interest and penalties associated with unrecognized income tax benefits is to include such items in income tax expense.

The activity related to the unrecognized tax benefits is as follows (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Gross unrecognized tax benefits—beginning balance	$3,360	$2,552	$2,195
Increases (decrease) related to tax positions from prior years	(151)	66	(4)
Increases related to tax positions taken during current year	573	742	361
Decreases related to tax positions taken during the current year	—	—	—
Gross unrecognized tax benefits—ending balance	$3,782	$3,360	$2,552

These amounts are related to certain deferred tax assets with a corresponding valuation allowance. As of December 31, 2017, the total amount of unrecognized tax benefits, if recognized, that would affect the effective tax rate is $1.3 million. We believe that there will not be any significant changes in our unrecognized tax benefits in the next 12 months.

The Tax Cuts and Jobs Act (“the Act”) was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code including, but not limited to: (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations; (5) eliminating the corporate alternative minimum tax (“AMT”) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (“BEAT”), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

On December 22, 2017, Staff Accounting Bulletin No. 118 (“SAB 118”) was issued, which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under ASC 740, Income Taxes. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company’s accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act. Our accounting for all effects of the Tax Act is incomplete. However, we were able to make reasonable estimates of certain effects and, therefore, have recorded provisional amounts to the consolidated financial statements for the year ended December 31, 2017.

Within the Tax Act, the Transition Act imposes a tax (“Transition Tax”) on the untaxed foreign earnings of foreign subsidiaries of U.S. companies by deeming those earnings to be repatriated. The Company is currently evaluating the effect of the Transition Tax on our non-U.S. earnings. Foreign earnings held in the form of cash and cash equivalents are taxed at a 15.5% rate and the remaining earnings are taxed at an 8.0% rate. In calculating the Transition Tax, the Company must calculate the cumulative earnings and profits of each of the non-U.S. subsidiaries back to 1987. The Company expects to complete this calculation and record any tax due by the end of fiscal 2018. Based on a preliminary analysis, and as a result of the Company's significant tax attributes, the Company's provisional estimate has no impact on the income tax provision.

The Company will continue to analyze the effects of the Tax Act on its financial statements and operations. Any additional impacts of the Tax Act will be recorded as they are identified during the measurement period in accordance with SAB 118.

Our accounting for the following elements of the Tax Act is complete.

We remeasured certain deferred tax assets and liabilities based on rates at which they are expected to reverse in the future, which is generally 21%. The rate reduction would generally take effect on January 1, 2018. Consequently, any changes in the U.S. corporate income tax rate will impact the carrying value of our deferred tax assets. Under the new corporate income tax rate of 21%, U.S. federal and state deferred tax assets decreased by approximately $28.2 million and the valuation allowance has decreased by the same amount.

Our accounting for the following elements of the Tax Act is incomplete, and we were not yet able to make reasonable estimates of the effects. Therefore, no provisional adjustments were recorded.

The one-time transition tax is based on our total post-1986 earnings and profits ("E&P") for which we have previously deferred from U.S. income taxes. This had no impact on the liability for our foreign subsidiaries or income tax expense. This amount may change when we finalize the calculation of post-1986 foreign E&P previously deferred from U.S. federal taxation and finalize the amounts held in cash or other specified assets. No additional income taxes have been provided for any remaining undistributed foreign earnings not subject to the transition tax and any additional outside basis difference inherent in these entities as these amounts continue to be indefinitely reinvested in foreign operations.

Global intangible low taxed income ("GILTI"): The Tax Act creates a new requirement that certain income (i.e., GILTI) earned by controlled foreign corporations ("CFCs") must be included currently in the gross income of the CFCs' U.S. shareholder. GILTI is the excess of the shareholder's "net CFC tested income" over the net deemed tangible income return, which is currently defined as the excess of (1) 10% of the aggregate of the U.S. shareholder's pro rata share of the qualified business asset investment of each CFC with respect to which it is a U.S. shareholder over (2) the amount of certain interest expense taken into account in the determination of net CFC-tested income.

Because of the complexity of the new GILTI tax rules, we are continuing to evaluate this provision of the Tax Act and the application of ASC 740. Under U.S. GAAP, we are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current period expense when incurred (the "period cost method") or (2) factoring such amounts into a company's measurement of its deferred taxes (the "deferred method"). Our selection of an accounting policy with respect to the new GILTI tax rules will depend, in part, on analyzing our global income to determine whether we expect to have future U.S. inclusions in taxable income related to GILTI and, if so, what the impact is expected to be. Because whether we expect to have future U.S. inclusions in taxable income related to GILTI depends on not only our current structure and estimated future results of global operations but also our intent and ability to modify our structure and/or our business, we are not yet able to reasonably estimate the effect of this provision of the Tax Act. Therefore, we have not made any adjustments related to potential GILTI tax in our financial statements and have not made a policy decision regarding whether to record deferred taxes on GILTI.

We are subject to taxation in the United States, various states, and several foreign jurisdictions. In November 2017, the Internal Revenue Service completed its examination for our 2015 and 2014 tax returns with no changes to the reported tax. Because we have net operating loss and credit carryforwards, there are open statutes of limitations in which federal, state and foreign taxing authorities may examine our tax returns for all years from 2004 through the current period.

10. Geographic Information

The following table is a summary of revenue by geographic regions based on ship to location (in thousands):

	Years Ended December 31,		
	2017	2016	2015
United States	$115,536	$115,706	$105,340
Japan	51,488	52,951	35,636
Asia Pacific, excluding Japan	33,189	29,829	23,847
EMEA	27,859	23,669	26,025
Other	7,357	5,142	5,437
	$235,429	$227,297	$196,285

The following table is a summary of our long-lived assets which include property and equipment, net based on the physical location of the assets (in thousands):

	December 31, 2017	December 31, 2016	December 31, 2015
United States	$ 7,733	$ 7,190	$ 7,988
Japan	1,510	34	52
Other	670	995	863
Total	$ 9,913	$ 8,219	$ 8,903

11. Employee Benefit Plan

We adopted a profit sharing plan qualified under Section 401(k) of the Internal Revenue Code which is offered to all of our United States employees. Participants in the plan may elect to contribute up to $18,000 of their annual compensation to the plan for the 2017 calendar year. Individuals who are 50 or older may contribute an additional $6,000 of their annual income. In 2017, we matched 50% of the first 6% of the employee's eligible compensation. We contributed $1.0 million, $0.9 million and $0.8 million during the years ended December 31, 2017, 2016 and 2015, respectively.

12. Appcito Acquisition

On June 23, 2016, we entered into an asset purchase agreement with Appcito, Inc. ("Appcito"), a privately held company engaged in providing a unified set of services for applications deployed on cloud infrastructure with facilities located in Santa Clara, California and Bangalore, India. Under the terms of the purchase agreement, we acquired substantially all of the assets of Appcito. This acquisition enhances our position as a comprehensive secure application services leader, and it represents a strategic step in our vision to help our customers become more secure and agile as they bridge traditional and cloud application environments.

The total purchase consideration was $6.5 million. The fair value of the total purchase consideration was $6.3 million, which consisted of $5.0 million in cash consideration, less a holdback of $0.7 million, which was fully paid during the second quarter of 2017, and 227,404 unregistered shares of our common stock with an aggregated fair value of $1.3 million.

The total purchase consideration was allocated to Appcito's net tangible and intangible assets based on their estimated fair values at the acquisition date as follows (in thousands):

Developed technology	$5,050
Goodwill	1,235
Other tangible assets	58
Total assets acquired	$6,343

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE
None.

ITEM 9A. CONTROLS AND PROCEDURES

Audit Committee Investigation
As reported in the Current Report on Form 8-K filed by the Company with the Securities and Exchange Commission, or SEC, on July 2, 2018 and described elsewhere in this Annual Report on Form 10-K, the Audit Committee of the Company's Board of Directors (the "Audit Committee") completed and made findings with respect to the investigation that was previously disclosed on January 30, 2018.
Management's Evaluation of Disclosure Controls and Procedures
Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2017, as required by Rule 13a-15(b) under the Securities Exchange Act of 1934, or the Exchange Act. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the company in the reports that it files or submits to the SEC, under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and financial officers, as appropriate to enable timely decisions regarding required disclosure.
In designing and evaluating our disclosure controls and procedures, our management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that our management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.
Based on this evaluation, our Chief Executive Officer and Chief Financial Officer, as our principal executive officer and principal financial officer, respectively, concluded that our disclosure controls and procedures were not effective as of December 31, 2017, due to the material weaknesses in our internal controls over financial reporting described below. Notwithstanding the material weaknesses as of December 31, 2017, management has concluded that the consolidated financial statements included in this Form 10-K present fairly, in all material respects, and in conformity with U.S. GAAP our financial position, results of operations and cash flows for the periods presented.
Management's Report on Internal Control Over Financial Reporting
Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act). Internal control over financial reporting consists of policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;

- Are designed and operated to provide reasonable assurance regarding the reliability of our financial reporting and our process for the preparation of financial statements for external purposes 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

- 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.

Our internal control over financial reporting is designed by, and under the supervision of our principal executive officer and principal financial officer and effected by the Company's Board of Directors, management, and others.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of

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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 internal control policies or procedures may deteriorate.

Management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2017, using the criteria set forth in the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

In connection with management's assessment of our internal control over financial reporting described above, management identified deficiencies that constituted individually, or in the aggregate, material weaknesses in our internal control over financial reporting as of December 31, 2017:

Material Weaknesses Identified

Control Environment and Monitoring Activities - We did not maintain an effective control environment. Specifically, our control environment, which sets the tone of our organization, and influences the control consciousness of employees, did not consistently ensure that the Company's policies relating to revenue recognition and standards of conduct were affirmatively understood and followed and that deviations therefrom were consistently identified and corrected in a timely manner or hold certain individuals accountable for their internal control responsibilities in the pursuit of Company objectives. Further, at certain levels within certain functions, there were insufficient monitoring activities to determine certain components of internal control were present and functioning.

The control environment material weaknesses contributed to the revenue recognition material weaknesses described below.

Revenue Recognition - We identified the following material weaknesses with respect to revenue recognition:

- Certain personnel in our credit and accounting functions did not have the adequate expertise to design and operate certain internal controls, to formalize certain appropriate policies and procedures, or to communicate matters relevant to revenue recognition. Certain personnel in our sales and sales operations functions did not have the adequate expertise to identify and communicate to accounting personnel certain information relevant to revenue recognition.

- Certain policies and procedures were not sufficiently detailed to establish expectations for and to support effective design and operation of internal controls in our sales, credit, and accounting functions to consistently determine whether our reseller's or distributor's price was fixed or determinable, or that collectability was reasonably assured in every case, and that once determined, adequate documentation was maintained.

The material weaknesses described above resulted in errors that led to the restatement of the Company's annual consolidated financial statements for the years ended December 31, 2016 and 2015. Furthermore, these control deficiencies could have resulted in other misstatements in financial statement accounts and disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that might not have been prevented or detected.

Changes to Internal Control over Financial Reporting

Except for the material weaknesses described above, no other change in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) occurred during the quarter ended December 31, 2017, that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Remediation Actions Relating to Material Weaknesses in Internal Control over Financial Reporting

At the conclusion of its investigation, the Audit Committee recommended to management a number of remediation actions. With the oversight of the Audit Committee, management is committed to the planning and implementing of these remediation actions to address the material weaknesses identified, as well as to foster continuous improvement in the Company's internal controls. The Company has implemented or is in the process of implementing various initiatives intended to address the identified material weaknesses and strengthen our overall internal control environment. In this regard, some of our key remedial initiatives include:

- Executive Management Communications to Reinforce Compliance - The Company’s Chief Executive Officer and Chief Financial Officer, at the direction of the Company’s Board of Directors, have in communications to personnel reinforced the importance of adherence to the Company’s policies and procedures regarding ethics and compliance and the importance of identifying misconduct and raising and communicating concerns.

- Changes to Our Executive Management and Sales Personnel - The Company has hired new personnel, who have enabled improved lines of communication across business functions and increased expertise.

- Training Practices - The Company has initiated development of a comprehensive training program relating to revenue recognition and contract review.

- Credit Policies and Procedures - The Company has evaluated its practices regarding extension of credit to customers and evaluation of customer creditworthiness and has begun implementing improvements in those practices.

- Revenue Recognition Policies and Procedures - The Company has evaluated its revenue recognition policies and procedures and has begun implementing improvements, including:

(i) the development of more comprehensive revenue recognition policies and improved procedures to ensure that such policies are understood and consistently applied;

(ii) better communication among functions involved in the sales process, including credit, accounting, sales, and sales operations;

(iii) increased standardization of contract documentation and revenue analyses for individual transactions, including increased oversight of revenue opportunities and contract review by personnel with the requisite accounting knowledge;

(iv) the development of a more comprehensive review process for, and monitoring controls over, customer contracts to ensure accurate revenue recognition, and the preparation of accounting memoranda to document the foregoing;

(v) the development of more comprehensive policies and procedures for product shipment and delivery documentation;

(vi) the adoption of enhancements of policies and procedures for approval of non-standard revenue arrangements with reseller and distributor customers; and

(vii) the adoption of revised documentation, including the Company’s sales quotations, to identify additional information relevant to revenue recognition.

- Implementation and Enhancement of Entity Level Controls - The Company intends to implement additional controls in its quarterly/annual financial reporting process, including enhanced sub-certifications by all sales personnel and with specific documentation related to the identification of non-standard revenue arrangements. The Company also intends to enhance its insider trading policy and related communications to employees.

Our management has worked, and continues to work, to strengthen our internal control over financial reporting. We are committed to ensuring that such controls are designed and operating effectively. The identified material weaknesses will not be considered remediated until the applicable remedial controls operate for a sufficient period of time and management concludes, through testing, that these controls are operating effectively. As we continue to evaluate and improve our internal control over financial reporting, we may take additional measures to address control deficiencies or modify or change the proposed remediation measures described above.
Our Board of Directors and management take internal control over financial reporting and the integrity of the Company’s financial statements seriously and believe that the steps taken, and to be taken, to remediate the identified

material weaknesses were and are essential steps to maintaining strong and effective internal control over financial reporting and a strong internal control environment.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and our principal financial officer, does not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well-designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

ITEM 9B. OTHER INFORMATION

None.

PART III.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Current Executive Officers

The following table sets forth the name, age and position of each of our executive officers as of the date of this Form 10-K.

Name	Age	Current Positions
Lee Chen	64	Chief Executive Officer, President and Chairman
Rajkumar Jalan	56	Chief Technology Officer
Robert Cochran	61	Executive Vice President, Legal and Corporate Collaboration
Tom Constantino	53	Executive Vice President, Chief Financial Officer
Chris White*	53	Executive Vice President of Worldwide Sales
Gunter Reiss	49	Vice President of Worldwide Marketing

* Mr. White joined the Company effective January 2, 2018.

Directors

Our business affairs are managed under the direction of our board of directors, which is currently composed of six members. Four of our directors are independent within the meaning of the listing standards of the New York Stock Exchange. Our board of directors is currently divided into three staggered classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the same class whose term is then expiring. At the 2018 annual meeting of stockholders, our stockholders will be voting on proposal to declassify our board of directors.

The following table includes the name, age (as of the date of this Form 10-K) position, class and term expiration year for each of our directors and is current as of the date of this Form 10-K.

Name	Age	Position	Class	Term Expiration Year
Phillip J. Salsbury(1)(2)(3)	76	Director	Class I	2018
Robert Cochran*	61	EVP, Legal and Corporate Collaboration	Class II	2018
Peter Y. Chung(2)(3)	50	Director	Class II	2019
Tor R. Braham(1)(2)**	60	Director	Class II	2019
Lee Chen	64	CEO, President and Chairman	Class III	2020
Alan S. Henricks(1)(2)(3)	67	Director	Class III	2020

(1) Member of our audit committee
(2) Member of our compensation committee
(3) Member of our nominating and corporate governance committee
* Mr. Cochran will step down as a Director (but not an executive officer) upon the closing of the polls at the 2018 annual meeting of stockholders.
** Mr. Braham was appointed on March 14, 2018.

The following paragraphs provide information, as of the date of this Form 10-K, about our executive officers and directors:

Executive Officers

Lee Chen has served as our President, Chief Executive Officer and as a member of our board of directors since July 2004, and as the Chairman of our board of directors since March 2014. From 1996 to August 2004, Mr. Chen served in a variety of positions, including as Vice President of Software Engineering and Quality Assurance at Foundry Networks, Inc., a company that designed, manufactured and sold high-end enterprise and service provider switches and routers, as well as wireless, security, and traffic management solutions. Mr. Chen has previously held management and senior technical positions at OTS, Apple Computer, Convergent Technologies, Inc. and InSync Group, and was a co-founder of Centillion Networks, Inc. Mr. Chen has an M.S.E.E. from San Jose State University and a B.S. in Electrophysics from National Chiao-Tung University in Taiwan. Mr. Chen is a technology pioneer, especially in the area of Internet Protocol Multicast and System & System Security and holds numerous patents.

Rajkumar Jalan has served as our Chief Technology Officer since November 2008. From 2005 to 2008, he served as a consultant to the Company. From 1996 to 2002, Mr. Jalan served in various capacities, including as a Director of IP Routing, for Foundry Networks, Inc., a company that designed, manufactured and sold high- end enterprise and service provider switches and routers, as well as wireless, security, and traffic management solutions. Prior to Foundry, he worked on a wide range of networking technologies from Ethernet, Token-Ring, ATM and Digital Switching Systems. Mr. Jalan’s prior employers included Bay Networks, Inc. and Network Equipment Technologies Inc. Mr. Jalan holds a number of patents related to Layer 2/Layer 3 as well as Layer 4/ Layer 7 switching. He has a B.Tech from the Indian Institute of Technology Bombay.

Robert Cochran has served as our Executive Vice President, Legal and Corporate Collaboration since November 2016, as our Vice President, Legal and Corporate Collaboration from January 2012 to November 2016 and as a member of our board of directors from April 2012 until his retirement from the board of directors upon the closing of the polls at this year’s annual meeting of stockholders. In addition, Mr. Cochran was appointed as our Chief Risk Compliance Officer in October 2016, has served as our Secretary since August 2004, and previously served on our board of directors from August 2004 to October 2004. Mr. Cochran currently serves as a director of Techpoint, Inc. (Tokyo Stock Exchange: M-6697), a fabless semiconductor company that designs, markets and sells mixed-signal integrated circuits for HD video applications in the security surveillance and automotive markets. From January 1993 to January 2012, Mr. Cochran was an attorney in private practice in Woodside, California, where he had served as our outside legal counsel since our incorporation. From 2004 to 2010, Mr. Cochran served as a director of Techwell, Inc. (formerly NASDAQ:TWLL), a fabless semiconductor company that designed, marketed, and sold mixed-signal integrated circuits. Mr. Cochran has a J.D. from Harvard Law School and an A.B. in Economics from Harvard University.

Tom Constantino has served as our Executive Vice President, Chief Financial Officer since June 2017. From November 2015 to December 2016, Mr. Constantino served as the Vice President of Finance and Head of Accounting & Finance Operations at Western Digital Corporation, a company that provides data storage solutions. While at Western Digital, from March 2012 to November 2015, Mr. Constantino served as Chief Financial Officer of its HGST subsidiary. His experience also includes the role of vice president, corporate finance at Hitachi Global Storage

Technologies and approximately 16 years in various financial and operational roles at Hewlett-Packard. Also, from January 2017 to May 2017, Mr. Constantino was an independent consultant providing Chief Financial Officer and Senior Finance Executive consulting services. Mr. Constantino began his career in public accounting at PricewaterhouseCoopers and holds a Bachelor's of Science in Business Administration from San Jose State University.

Chris White has served as our Executive Vice President of Worldwide Sales since January 2018. From November 2016 to January 2018, Mr. White was Vice President Sales, Strategic Accounts & Archive for Proofpoint, an enterprise security company based in Sunnyvale, California. From June 2011 to November 2016, Mr. White was Vice President Sales, Americas Partners & Alliances for Hitachi Data Systems. Chris has over 24 years of direct and indirect sales experience, focused on selling with and through channel and alliance partners. His prior employers include NetApp, Symantec Corporation, Veritas and ADP. Mr. White has Bachelor of Art Degree, Social Sciences from the University of California, Irvine.

Gunter Reiss has served as our Vice President Worldwide of Marketing since October 2017 and as our Vice President of Strategic Alliances from October 2014 to October 2017. From 2005 to 2014, Mr. Reiss served in various capacities for Ericsson, including Vice President, Strategy & Business Development PA IP & Broadband/ BU Networks of Ericsson Silicon Valley and Director, Partnership Business Development & Sourcing, Strategic Sourcing North America of Ericsson Inc. He also spent three years in England in senior leadership roles with Damovo and IPC. Gunter served on the board of privately held Skorpios Technologies and was a member of the Sun Microsystems customer advisory board. He received his electrical engineering degree from the Higher Technical School in Vienna, Austria. He is an alumnus of the UCLA Executive M&A program and the UC Berkeley Haas School of Business Venture Capitalist Executive Program.

Non-Employee Directors

Dr. Phillip J. Salsbury has served as a member of our board of directors since May 2013. Dr. Salsbury is also our Lead Independent Director. From 2005 to April 2010, Dr. Salsbury served as a director of Techwell, Inc., a fabless semiconductor public company that was acquired by Intersil Corporation. Dr. Salsbury was a founder, the Chief Technology Officer, and later the president and Chief Executive Officer of SEEQ Technology, Inc., a non-volatile memory and Ethernet communications semiconductor company, from January 1981 until its acquisition by LSI Logic Corporation, a large semiconductor company, in June 1999. He holds a Ph.D. and an M.S. in Electrical Engineering from Stanford University and a B.S. in Electrical Engineering from the University of Michigan. Dr. Salsbury has specific attributes that qualify him to serve as a member of our board of directors, including his strong technical background and management experience as chief executive officer of a public company, and his prior service as a director of a public company.

Peter Y. Chung has served as a member of our board of directors since June 2013. Mr. Chung is a Managing Director and the Chief Executive Officer of Summit Partners, L.P., where he has been employed since 1994. He is currently a director of Acacia Communications (NASDAQ: ACIA) and MACOM (NASDAQ: MTSI), as well as several privately-held companies. Previously, Mr. Chung served as a director of Ubiquiti Networks, Inc., a company that develops networking technology. Mr. Chung has an M.B.A. from the Stanford University Graduate School of Business and an A.B. in Economics from Harvard University. Mr. Chung has specific attributes that qualify him to serve as a member of our board of directors, including his experience in investment banking, private equity and venture capital investing and in the communications technology sector, as well as his prior service on public and private company boards.

Tor R. Braham has served as a member of our board of directors since March 2018. He is currently a director of Altaba Inc., an independent, non-diversified, closed-end management investment company and Viavi Solutions Inc., a network and service enablement and optical coatings company. He previously served as a member of the board of directors of Yahoo, a provider of web services, from April 2016 to June 2017, NetApp, Inc., a computer storage and data management company, from September 2013 to March 2016 and Sigma Designs, Inc., an integrated circuit provider for the home entertainment market, from June 2014 to August 2016. Mr. Braham served as Managing Director and Global Head of Technology Mergers and Acquisitions for Deutsche Bank Securities Inc., an investment bank, from 2004 until November 2012. From 2000 to 2004, he served as Managing Director and Co-Head of West Coast U.S. Technology, Mergers and Acquisitions for Credit Suisse First Boston, an investment bank. Prior to that role, Mr. Braham served as an investment banker with Warburg Dillon Read LLC, and as an attorney at Wilson Sonsini Goodrich & Rosati. Mr. Braham has specific attributes that qualify him to serve as a member of our board of directors, including his extensive financial experience and knowledge of the technology industry gained through his service as an investment banker and lawyer to technology companies, as well as his service on public and private company boards.

Alan S. Henricks has served as a member of our board of directors since March 2014. Since May 2012 he has served as a member of the board of directors and audit committee chairman of Roku, Inc. (NASDAQ: ROKU), a streaming media company. Since May 2015 he has served as a member of the board of directors and audit committee of Model N, Inc. (NYSE: MODN), a provider of cloud-based Revenue Management solutions. In February 2017, he joined the compensation committee of Model N. From April 2010 to June 2015 he has served as a member of the board of directors of Ellie Mae, Inc. (NYSE: ELLI), a SaaS Company, and as its lead independent director from November 2012 to May 2014. From May 2009 to the present, Mr. Henricks has been a board member, advisor and consultant to a variety of private technology companies. His consulting CFO roles included Tile, Ring, Percolate, Livescribe, and Santur Corporation. From September 2006 to May 2009, Mr. Henricks served as Chief Financial Officer of Pure Digital Technologies, Inc. Prior to September 2006, Mr. Henricks served as Chief Financial Officer of several private and public companies including Traiana Inc., Informix Software, Inc., Documentum, Inc., Borland International, Inc., Cornish & Carey and Maxim Integrated Products, Inc. Mr. Henricks holds a Bachelor of Science in Engineering from the Massachusetts Institute of Technology and a Master of Business Administration from Stanford University. Mr. Henricks has specific attributes that qualify him to serve as a member of our board of directors, including his extensive experience serving as chief financial officer of both public and private companies, as well as his service on public and private company boards.

There are no family relationships among any of the directors or executive officers.

Board Leadership Structure

Mr. Chen currently serves as both chair of our Board of Directors and our chief executive officer. Our Board believes that the current Board leadership structure provides effective independent oversight of management while allowing our Board of Directors and management to benefit from Mr. Chen’s leadership and years of experience as an executive in the networking industry. Mr. Chen is best positioned to identify strategic priorities, lead critical discussion and execute our strategy and business plans. Mr. Chen possesses detailed in-depth knowledge of the issues, opportunities, and challenges facing us.

Lead Independent Director

Our board determined that it would be beneficial to have a Lead Independent Director to, among other things, preside over executive sessions of the independent directors, which provides our board with the benefit of having the perspective of entirely independent directors. Independent directors and management sometimes have different perspectives and roles in strategy development. Our board appointed Phillip J. Salsbury, Ph.D. to serve as our lead independent director. As lead independent director, Dr. Salsbury presides over periodic meetings of our independent directors, serves as a liaison between our Chairman of the board of directors and the independent directors, and performs such additional duties as our board of directors may otherwise determine and delegate.

Board Meetings and Committees

During our fiscal year ended December 31, 2017, the board of directors held five (5) meetings (including regularly scheduled and special meetings) and acted by written consent two (2) times. No director attended fewer than 75% of the aggregate of (i) the total number of meetings of our board of directors held during the period for which he or she has been a director and (ii) the total number of meetings held by all committees of our board of directors on which he or she served during the periods that he or she served. Although we do not have a formal policy regarding attendance by members of our board of directors at annual meetings of stockholders, we encourage, but do not require, our directors to attend. Four (4) of our directors attended our 2017 annual meeting of stockholders. Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors is described below. Members will serve on these committees until their resignation or until as otherwise determined by our board of directors.

Audit Committee

Our audit committee is comprised of Messrs. Braham, Henricks and Salsbury, each of whom is a non-employee member of our board of directors. Mr. Henricks is the chair of our audit committee. Our board of directors has determined that each of the members of our audit committee satisfies the requirements for financial literacy under the rules and regulations of the New York Stock Exchange and the SEC. Our board of directors has also determined that Mr. Henricks qualifies as an “audit committee financial expert” as defined in the SEC rules and satisfies the financial sophistication requirements of the New York Stock Exchange.

The audit committee is responsible for, among other things:

- selecting and hiring our registered public accounting firm;
- evaluating the performance and independence of our registered public accounting firm;
- approving the audit and pre-approving any non-audit services to be performed by our registered public accounting firm;
-

- reviewing our financial statements and related disclosures and reviewing our critical accounting policies and practices;
- reviewing the adequacy and effectiveness of our internal control policies and procedures and our disclosure controls and procedures;
- overseeing procedures for the treatment of complaints on accounting, internal accounting controls, or audit matters;
- reviewing and discussing with management and the independent registered public accounting firm the results of our annual audit, our quarterly financial statements, and our publicly filed reports;

- reviewing and approving in advance any proposed related person transactions; and
- preparing the audit committee report to be included in our annual proxy statement as required by the SEC.

The audit committee operates under a written charter that satisfies the applicable standards of the SEC and the New York Stock Exchange. A copy of the charter of our audit committee is available on our website at http://investors.a10networks.com. During 2017, our audit committee held six (6) meetings and did not act by written/electronic consent.

Compensation Committee

Our compensation committee consists of Messrs. Braham, Chung, Henricks and Salsbury. Mr. Chung is the chairman of our compensation committee. Our board of directors has determined that each member of this committee is a non-employee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act, and an outside director, as defined under Section 162(m) of the Internal Revenue Code of 1986, as amended, or Section 162(m).

The compensation committee is responsible for, among other things:

- reviewing and approving our Chief Executive Officer's and other executive officers' annual base salaries, incentive compensation plans, including the specific goals and amounts, equity compensation, employment agreements, severance arrangements and change in control agreements, and any other benefits, compensation or arrangements;
- administering our equity compensation plans;
- overseeing our overall compensation philosophy, compensation plans, and benefits programs; and
- preparing the compensation committee report to be included in our annual proxy statement as required by the SEC.

Our compensation committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of the New York Stock Exchange. A copy of the charter of our compensation committee is available on our website at http://investors.a10networks.com. During 2017, our compensation committee held five (5) meetings and acted by written/electronic consent ten (10) times.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Messrs. Chung, Henricks and Salsbury, each of whom is a non-employee member of our board of directors. Dr. Salsbury is the chairman of our nominating and corporate governance committee. Our board of directors has determined that each member of our nominating and corporate governance committee meets the requirements for independence under the rules of the New York Stock Exchange. The nominating and corporate governance committee is responsible for, among other things:

- evaluating and making recommendations regarding the composition, organization, and governance of our board of directors and its committees;
- evaluating and making recommendations regarding the creation of additional committees or the change in mandate or dissolution of committees;
- reviewing and making recommendations with regard to our corporate governance guidelines and compliance with laws and regulations; and
- reviewing actual and potential conflicts of interest of our directors and corporate officers, other than related person transactions reviewed by the audit committee, and approving or prohibiting any involvement of such persons in matters that may involve a conflict of interest.

Our nominating and corporate governance committee operates under a written charter that satisfies the applicable listing standards of the New York Stock Exchange. A copy of the charter of our nominating and corporate governance committee is available on our website at http://investors.a10networks.com. During 2017, our nominating and corporate governance committee held two (2) meetings and did not act by written/electronic consent.

Communications with the Board of Directors

Interested parties wishing to communicate with our board of directors or with an individual member or members of our board of directors may do so by writing to our board of directors or to the particular member or members of our board of directors, and mailing the correspondence to our General Counsel at A10 Networks, Inc., 3 West Plumeria Drive, San Jose, CA 95134, Attn: General Counsel. Each communication should set forth (i) the name and address of the stockholder, as it appears on our books, and if the shares of our common stock are held by a nominee, the name and address of the beneficial owner of such shares, and (ii) the number of shares of our common stock that are owned of record by the record holder and beneficially by the beneficial owner. Our General Counsel, in consultation with appropriate members of our board of directors as necessary, will review all incoming communications and, if appropriate, such communications will be forwarded to the member or members of our board of directors to whom such communication was directed, or if none is specified, to the Chairman of our board of directors.

Corporate Governance Guidelines and Code of Business Conduct and Ethics

Our board of directors has adopted Corporate Governance Guidelines that address items such as the qualifications and responsibilities of our directors and director candidates and corporate governance policies and standards applicable to us in general. In addition, our board of directors has adopted a Code of Business Conduct and Ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer, and other executive and senior financial officers. The full text of our Corporate Governance Guidelines and our Code of Business Conduct and Ethics is posted on the Corporate Governance portion of our website at http://investors.a10networks.com. We will post amendments to our Code of Business Conduct and Ethics or waivers of our Code of Business Conduct and Ethics for directors and executive officers on the same website.

Risk Management

Risk is inherent with every business, and we face a number of risks, including strategic, financial, business and operational, legal and compliance, and reputational. We have designed and implemented processes to manage risk in our operations. Management is responsible for the day-to-day management of risks the company faces, while our board of directors, as a whole and assisted by its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are appropriate and functioning as designed.

Our board of directors believes that open communication between management and our board of directors is essential for effective risk management and oversight. Our board of directors meets with our Chief Executive Officer and other members of the senior management team at quarterly meetings of our board of directors, where, among other topics, they discuss strategy and risks facing the company, as well as at such other times as they deemed appropriate.

While our board of directors is ultimately responsible for risk oversight, our board committees assist our board of directors in fulfilling its oversight responsibilities in certain areas of risk. Our audit committee assists our board of directors in fulfilling its oversight responsibilities with respect to risk management in the areas of internal control over financial reporting and disclosure controls and procedures, legal and regulatory compliance, and discusses with management and the independent auditor guidelines and policies with respect to risk assessment and risk management. Our audit committee also reviews our major financial risk exposures and the steps management has taken to monitor and control these exposures. Our audit committee also monitors certain key risks on a regular basis throughout the fiscal year, such as risk associated with internal control over financial reporting and liquidity risk. Our nominating and corporate governance committee assists our board of directors in fulfilling its oversight responsibilities with respect to the management of risk associated with board organization, membership and structure, and corporate governance. Our compensation committee assesses risks created by the incentives inherent in our compensation policies. Finally, our full board of directors reviews strategic and operational risk in the context of reports from the management team, receives reports on all significant committee activities at each regular meeting, and evaluates the risks inherent in significant transactions.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires that our executive officers and directors, and persons who own more than 10% of our common stock, file reports of ownership and changes of ownership with the SEC. Such directors, executive officers and 10% stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

SEC regulations require us to identify in this Annual Report on Form 10-K anyone who filed a required report late during the most recent fiscal year. Based on our review of forms we received, or written representations from reporting persons stating that they were not required to file these forms, we believe that during our fiscal ended December 31, 2017, all Section 16(a) filing requirements were satisfied on a timely basis.

ITEM 11. EXECUTIVE COMPENSATION
Processes and Procedures for Compensation Decisions

Our compensation committee is responsible for the executive compensation programs for our executive officers and reports to our board of directors on its discussions, decisions and other actions. Typically, our Chief Executive Officer makes recommendations to our compensation committee regarding, and often attends committee meetings relating to the determination of, compensation for the respective executive officers that report to him, except that our Chief Executive Officer does not make recommendations as to his own compensation. Our Chief Executive Officer makes recommendations to our compensation committee regarding short- and long-term compensation for all executive officers (other than himself) based on our results, an individual executive officer's contribution toward these results and performance toward individual goal achievement. Our compensation committee then reviews the recommendations and other data and makes decisions as to total compensation for each executive officer other than the Chief Executive Officer, as well as each individual compensation component. Our compensation committee makes recommendations to our board of directors regarding compensation for our Chief Executive Officer. The independent members of our board of directors make the final decisions regarding executive compensation for our Chief Executive Officer.

Our compensation committee is authorized to retain the services of one or more executive compensation advisors, as it sees fit, in connection with the establishment of our compensation programs and related policies. Compensia, a national compensation consultant, has been retained by our compensation committee to provide information, recommendations and other advice relating to executive compensation. Compensia was engaged to assist our compensation committee in developing an appropriate group of peer companies to help us determine the appropriate level of overall compensation for our executive officers, as well as assess each separate element of compensation, with a goal of ensuring that the compensation we offer to our executive officers is competitive and fair.
Fiscal 2017 Summary Compensation Table

The following table provides information regarding the total compensation for services rendered in all capacities that was earned by each individual who served as our principal executive officer at any time in 2017, and our two other most highly compensated executive officers who were serving as executive officers as of December 31, 2017. These individuals were our named executive officers (each, an "NEO" and together, the "NEOs") for 2017.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)(1)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)	Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)		Total ($)
Lee Chen	2017	—	—	2,228,025	—	—	—	—		2,228,025
Chief Executive Officer	2016	—	—	1,269,600	673,706	—	—	1,278	(2)	1,944,584
Tom Constantino (3)										
Executive Vice President, Chief Financial Officer	2017	186,612	50,000	1,473,500	425,831	31,633	—	3,265	(4)	2,170,841
Rajkumar Jalan (5)	2017	259,375	—	1,186,426	—	13,781	—	2,451	(6)	1,462,033
Chief Technology Officer	2016	239,000	—	414,000	219,402	107,087	—	2,255	(6)	981,744

(1) The amounts reported in the Stock Awards and the Option Awards columns represent the grant date fair value of the stock award and the stock option award as computed in accordance with FASB ASC Topic 718. As required by the rules of the SEC, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. Note that the amount reported in this column does not correspond to the actual economic value that may be received by the NEO from the award. The assumptions that we used to calculate these amounts are discussed in Note 7 to our audited financial statements included in this Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

(2) This amount represents dependent care benefits paid on behalf of the executive.

(3) Mr. Constantino became a named executive officer in 2017. The amount reported under the Bonus column represents the sign-on bonus he received in connection with his hire pursuant to the terms of his offer letter. The amount reported under the Non Equity Incentive Plan Compensation column represents the bonus paid to him under the 2017 Executive Cash Incentive Plan in July 2018.

(4) This amount represents group term life insurance premiums paid on behalf of the executive ($765) and 401(k) matching contribution ($2,500).

(5) The amount reported under the Non Equity Incentive Plan Compensation column represents the bonus paid to Mr. Jalan under the 2017 Executive Cash Incentive Plan in July 2018.
(6) This amount represents group term life insurance premiums paid on behalf of the executive.

Non-Equity Incentive Plan Compensation

For our 2017 fiscal year, Messrs. Constantino and Jalan were eligible to receive annual cash bonuses based 70% on corporate performance goals and 30% on individual performance goals, under our 2017 Executive Cash Incentive Plan, as approved by the compensation committee. The 2017 Executive Cash Incentive Plan was established under and subject to the terms of our Executive Incentive Compensation Plan, as described in further detail below. Mr. Constantino's target bonus opportunity for our 2017 fiscal year was equal to 65% of his earned 2017 base salary and Mr. Jalan's target bonus opportunity for our 2017 fiscal year was equal to 50% of his 2017 base salary. The corporate performance goals under such plan related to our revenue and non GAAP operating income for 2017. Generally, the portion of the plan based on corporate performance goals would result in funding of bonuses upon the achievement of threshold levels of both revenue and non GAAP operating income as specified in a performance goal matrix approved by the compensation committee. The maximum amount that could be earned on the individual performance goals was 100% and the maximum amount that could be earned on the corporate performance goals was 200%.

In early 2018, our Chief Executive Officer evaluated, and presented to the compensation committee, the progress made towards achieving the corporate and individual performance goals in accordance with the terms of the Executive Cash Incentive Plan and made a recommendation to our compensation committee regarding the bonus amount for each of Messrs. Constantino and Jalan based on this evaluation. The bonuses for Messrs. Constantino and Jalan, as determined pursuant to the terms of the Executive Cash Incentive Plan and our Chief Executive Officer's recommendation, were approved on July 23, 2018. For the 2017 fiscal year, Mr. Constantino earned a cash bonus of $31,633 and Mr. Jalan earned a cash bonus of $13,781. The amount earned on corporate performance goals was $0.

Emerging Growth Company Status

We are an "emerging growth company," as defined in the JOBS Act. As an emerging growth company, we are exempt from certain requirements related to executive compensation, including the requirements to hold nonbinding advisory votes on executive compensation and to provide information relating to the ratio of total compensation of our Chief Executive Officer to the median of the annual total compensation of all of our employees, each as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Act.

Non-qualified Deferred Compensation

Our named executive officers did not participate in, or earn any benefits under, a non-qualified deferred compensation plan sponsored by us during the fiscal year ended December 31, 2017.

Executive Officer Employment Agreements

Offer Letters

We have entered into offer letters with each of our NEOs.

Lee Chen Offer Letter

Under Mr. Chen's offer letter dated July 30, 2004, we hired Mr. Chen as our CEO. The letter provided for no base salary for Mr. Chen and an initial equity award grant to be determined. Mr. Chen's current annual base salary is $0.

Tom Constantino Offer Letter

Under Mr. Constantino's offer letter dated May 14, 2017, we hired Mr. Constantino as our EVP, Chief Financial Officer. The letter provided for Mr. Constantino's initial base salary, bonus opportunity (on a prorated basis), and sign-on bonus. In addition, the letter provided for an initial restricted stock unit award and an initial option award covering 175,000 and 135,000 shares, respectively, which are scheduled to vest over 4 years, subject to his continued service with us through each applicable vesting date. His awards are eligible for accelerated vesting under his Change in Control and Severance Agreement, described below. Mr. Constantino's current annual base salary is $350,075.

Rajkumar Jalan Offer Letter

Under Mr. Jalan's offer letter dated November 30, 2008, we hired Mr. Jalan as our CTO. The letter provided for an initial base salary of $150,000 for Mr. Jalan and an initial stock option award covering 150,000 shares which vested over four years subject to his continued service with us through each applicable vesting date. Mr. Jalan's current annual base salary is $271,688.

Change in Control and Severance Agreements

We entered into a Change in Control and Severance Agreement (each, an "Agreement" and together, the "Agreements") with each of our NEOs.

Each NEO's Agreement provides that if, after the executive completes at least one year of employment with us or if promoted to an executive position, completes at least one year in an executive role and (a) we terminate the executive's employment with us for any reason other than for cause and not due to the executive's death or disability, or (b) the executive resigns for Good Reason (as defined in the Agreement), and in each case the termination does not occur during the Change in Control Period (as defined in the Agreement), the executive will receive the following severance benefits: (i) continuing payments of salary severance for a period of 12 months (in the case of Mr. Chen) or nine months (in the case of the other NEOs), and (ii) continuing payments to reimburse the executive for COBRA continuation coverage for a period of up to 12 months (in the case of Mr. Chen) or nine months (in the case of the other NEOs).

Each Agreement further provides that if we terminate the executive's employment with us for any reason other than cause and not due to the executive's death or disability, or the executive resigns for Good Reason, and in each case the termination occurs during the Change in Control Period, the executive will receive the following severance benefits: (i) a lump sum cash payment equal to 150% (in the case of Mr. Chen) or 100% (in the case of the other NEOs) of the greater of the executive's salary in effect as of immediately prior to his employment termination or the Change in Control, (ii) a lump sum cash payment equal to 150% (in the case of Mr. Chen) or 100% (in the case of the other NEOs) of the greater of the executive's target bonus in effect for the year in which the executive's employment terminates or the Change in Control occurs, (iii) continuing payments to reimburse the executive for COBRA continuation coverage for a period of up to 18 months (in the case of Mr. Chen) or 12 months (in the case of the other NEOs), and (iv) 100% accelerated vesting of the executive's outstanding equity awards, with any applicable performance goals considered achieved at the target levels.

In order to receive the severance benefits under the Agreement, the executive must sign and not revoke a release of claims in our favor and comply with confidentiality obligations.

As defined in the Agreements, "Cause" generally means the executive's (i) repeated failure to perform his duties and responsibilities to the Company or abide in all material respects with the Company's policies after receiving written notice, (ii) engagement in illegal conduct injurious to the Company in any material respect, (iii) material violation or material breach of his confidential information and invention agreement with the Company that is not cured within 20 days of written notice or is incapable of cure, or (iv) conviction or plea of no contest to a felony (other than motor vehicle offenses that do not materially impair the executive's performance of his employment duties) or any crime involving fraud, embezzlement or other offense involving moral turpitude, and/or committing any act of embezzlement, dishonesty or fraud against or the misappropriation of material property belonging to the Company.

As defined in the Agreements, "Change in Control Period" generally means, subject to the occurrence of a Change in Control, the period beginning on the date that an agreement to enter into such Change in Control is signed and executed, and ending on the date 12 months following such Change in Control. As will be defined in the Agreements, "Change in Control" generally means the occurrence of any of the following events: (i) a change in our ownership that occurs on the date that any one person or persons acting as a group ("Person"), acquires ownership of our stock that, together with the stock already held by such Person, constitutes more than 50% of the total voting power of our stock; or (ii) a change in our effective control that occurs on the date that a majority of members of our board of directors is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of our board of directors prior to the date of the appointment or election; or (iii) a change in the ownership of a substantial portion of our assets that occurs on the date that any Person acquires (or has acquired during a 12-month period) assets from us with a total gross fair market value equal to or more than 50% of the total gross fair market value of all of our assets immediately prior to such acquisition(s), excluding any transfer to an entity that is controlled by our stockholders immediately after the transfer and any transfer of assets by us to an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by us. For purposes of this definition, gross fair market value means the value of our assets, or the value of our assets being disposed of, determined without regard to any liabilities associated with such assets.

As defined in the Agreements, "Good Reason" generally means the executive's voluntary termination of employment with us within 90 days following the expiration of our cure period following one or more of the following occurring without the executive's prior consent: (i) a material reduction in the executive's gross base salary other than in connection with a similar reduction for all similarly-situated employees; (ii) a material reduction in the executive's authority, duties, or responsibilities; or (iii) a relocation of the executive's principal place of work to a location that is more than 50 miles from his current principal work site for us. The executive may not resign for Good Reason without first providing us with notice within 60 days of the initial existence of the condition that he believes constitutes Good Reason identifying the grounds for Good Reason and a reasonable cure period of at least 30 days following the date of such notice, during which such grounds must not have been cured.

Executive Incentive Compensation Plan

In March 2014, our board of directors adopted an Executive Incentive Compensation Plan, referred to as our Bonus Plan. Our Bonus Plan allows our compensation committee to provide cash incentive awards to selected employees, including our NEOs, based upon performance goals established by our compensation committee.

Under the Bonus Plan, our compensation committee determines the performance goals applicable to awards, which goals may include, without limitation: attainment of research and development milestones, sales bookings, business divestitures and acquisitions, cash flow, cash position, earnings (which may include any calculation of earnings, including but not limited to earnings before interest and taxes, earnings before taxes, earnings before interest, taxes, depreciation and amortization and net earnings), earnings per share, net income, net profit, net sales, operating cash flow, operating expenses, operating income, operating margin, overhead or other expense reduction, product defect measures, product release timelines, productivity, profit, return on assets, return on capital, return on equity, return on investment, return on sales, revenue, revenue growth, sales results, sales growth, stock price, time to market, total stockholder return, working capital, and individual objectives such as peer reviews or other subjective or objective criteria. Performance goals that include the Company's financial results may be determined in accordance with U.S. generally accepted accounting principles, or GAAP, or such financial results may consist of non-GAAP financial measures and any actual results may be adjusted by our compensation committee for one-time items or unbudgeted or unexpected items when determining whether the performance goals have been met. The goals may be on the basis of any factors our compensation committee determines relevant, and may be adjusted on an individual, divisional, business unit or company-wide basis. Any criteria used may be measured on such basis as our compensation committee determines. The performance goals may differ from participant to participant and from award to award.

Our compensation committee may, in its sole discretion and at any time, increase, reduce or eliminate a participant's actual award, and/or increase, reduce or eliminate the amount allocated to the bonus pool for a particular performance period. The actual award may be below, at or above a participant's target award, in our compensation committee's discretion. Our compensation committee may determine the amount of any reduction on the basis of such factors as it deems relevant, and it is not required to establish any allocation or weighting with respect to the factors it considers.

Actual awards are paid in cash (or its equivalent) in a single lump sum only after they are earned and approved by our compensation committee. Unless otherwise determined by our compensation committee, to earn an actual award, a participant must be employed by the Company (or an affiliate of the Company) through the date the bonus is paid. Payment of bonuses occurs as soon as administratively practicable after they are earned, but no later than the dates set forth in the Bonus Plan.

Our board of directors has the authority to amend, alter, suspend or terminate the Bonus Plan provided such action does not alter or impair the existing rights of any participant with respect to any earned bonus.

Retirement Plan

We maintain a tax-qualified 401(k) retirement plan for all employees who satisfy certain eligibility requirements under the plan. The plan provides eligible employees with an opportunity to save for retirement on a tax-advantaged basis. Participants of our 401(k) plan are able to defer a percentage of their eligible compensation, subject to applicable annual Internal Revenue Code and plan limits. All participants’ interests in their deferrals are 100% vested when contributed. We also provide matching contributions under our 401(k) plan that generally vest over a 4-year period based on the participant’s employment. The Company matches 50% of the first 6% of eligible compensation contributed, for up to $2,500 per year. Pre-tax contributions are allocated to the participant’s individual account and are then invested in selected investment alternatives according to the participant’s directions. The 401(k) plan is intended to qualify under Internal Revenue Code Section 401(a) with the plan’s related trust intended to be tax exempt under Internal Revenue Code Section 501(a). As a tax-qualified retirement plan, the 401(k) plan allows contributions, and earnings on those contributions, not to be taxable to the employees until distributed from

the 401(k) plan.
Outstanding Equity Awards at 2017 Year-End

The following table sets forth information regarding outstanding stock options and stock awards held by our named executive officers as of December 31, 2017.

			Option Awards				Stock Awards			
Name	Grant Date		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable(4)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that Have Not Vested ($)
Lee Chen	3/31/2017	(1)(2)(3)					121,750	939,910		
	2/12/2016	(1)(3)(4)	129,479	153,021	5.52	2/12/2026				
	12/22/2014	(1)(5)							240,000	1,852,800
	2/12/2016	(1)(3)(6)					172,500	1,065,760		
Tom Constantino	6/14/2017	(1)(3)(7)		135,000	8.42	6/14/2027				
	6/14/2017	(1)(3)(8)					175,000	1,351,000		
Rajkumar Jalan	7/1/2011	(9)	21,333		3.00	4/27/2021	64,832	500,503		
	2/5/2013	(9)	48,000		5.78	2/5/2023				
	10/24/2013	(9)	173,332		8.51	10/24/2023				
	12/22/2014	(1)(3)(10)	60,000	20,000	4.40	12/22/2024				
	2/12/2016	(1)(3)(4)	42,166	49,834	5.52	2/12/2026				
	12/22/2014	(1)(5)							56,250	434,250
	2/12/2016	(1)(3)(6)					50,000	386,000		
	3/31/2017	(1)(2)(3)					64,832	500,503		

(1) Each of the outstanding stock option awards or restricted stock unit awards was granted under our 2014 Equity Incentive Plan.

(2) One quarter (1/4) of the shares of our common stock subject to the restricted stock award is scheduled to vest in four, successive, equal, yearly installments commencing on the one-year anniversary of February 12, 2017, subject to continued service with us through each applicable vesting date.

(3) In the event that we terminate the NEO's employment without cause or the NEO resigns for good reason at any time during the period beginning on the date that we enter into an agreement resulting in our change in control and ending on the date 12 months after the change in control, the award will accelerate vesting in full as provided under the terms of each NEO's Change in Control and Severance Agreement.

(4) One forty-eighth (1/48) of the shares of our common stock subject to the stock option award is scheduled to vest in 48, successive, equal, monthly installments (with the first installment having vested on March 12, 2016), subject to continued service with us through each applicable vesting date.

(5)

If our stock price is at least $10.00 on each of twenty (20) consecutive trading days that occurs during the performance period (4 years from the date of grant) (the "$10 Performance Goal"), then the performance-based restricted stock unit awards will immediately vest as of the date that the $10 Performance Goal is achieved, subject to the NEO remaining a service provider through such vesting date. For the avoidance of doubt, if the $10 Performance Goal is achieved more than once during the performance period, the performance-based restricted stock unit award may vest only upon the first instance that the $10 Performance Goal is achieved, and thereafter, no additional restricted stock units will vest. If our stock price is at least $15.00 on each of twenty (20) consecutive trading days that occurs during the performance period (the "$15 Performance Goal" and together with the $10 Performance Goal, the "Stock Price Goals"), the performance-based restricted stock units will vest immediately as of the date that the $15 Performance Goal is achieved, subject to the NEO remaining a service provider through such vesting date. One third (1/3) of the total number of shares subject to the performance-based restricted stock units are subject to the achievement of the $10 Performance Goal and the balance are subject to the achievement of $15 Performance Goal.

(6) The number of shares subject to the performance-based restricted stock units shown in the table represents the total remaining number of unvested shares underlying the award. The number of shares subject to the award that became eligible to vest was determined based on the extent of achievement of the Company's fiscal year 2016 revenue as previously determined shortly after the Company's fiscal year ended December 31, 2016. Based on such determination, 80.003% of the total shares subject to this award became eligible to vest and is scheduled to vest as to one quarter (1/4) of such vesting-eligible shares on each of the one, two, three, and four year anniversaries of the award's grant date, subject to continued service with us through the applicable vesting date.

(7) One quarter (1/4) of the shares of the common stock subject to the stock option award vested on the one-year anniversary of June 12, 2017, and an additional one forty-eighth (1/48) of the total shares subject to the option award is scheduled to vest in 36, successive, equal, monthly installments thereafter, subject to continued service with us through each applicable vesting date.

(8) One quarter (1/4) of the shares of our common stock subject to the restricted stock award it scheduled to vest in four, successive, equal, yearly installments commencing on the one-year anniversary of July 5, 2017, subject to continued service with us through each applicable vesting date.

(9) Each of the outstanding stock option awards was granted under our 2008 Stock Plan and is fully vested in the holder thereof.

(10) One forty-eighth (1/48) of the shares of our common stock subject to the stock option award is scheduled to vest in 48, successive, equal, monthly installments (with the first installment having vested on January 22, 2015), subject to continued service with us through each applicable vesting date.

Compensation Committee Report

The compensation committee has reviewed and discussed the section titled "Executive Compensation" with management. Based on such review and discussion, the compensation committee has recommended to the board of directors that the section titled "Executive Compensation" be included in this Annual Report on Form 10-K.

Respectfully submitted by the members of the compensation committee of the board of directors:

Peter Y. Chung (Chair)
Tor R. Braham
Alan S. Henricks
Phillip J. Salsbury

Equity Compensation Plan Information

The following table summarizes our equity compensation plan information as of December 31, 2017. Information is included for equity compensation plans approved by our stockholders and equity compensation plans not approved by our stockholders. We will not grant equity awards in the future under any of the equity compensation plans not approved by our stockholders included in the table below.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans(1) (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by stockholders	11,586,333	$5.18	9,991,867
Equity compensation plans not approved by stockholders	—	—	—
Total	11,586,333	$5.18	9,991,867

(1)

Our 2014 Equity Incentive Plan (the “2014 Plan”) provides that the number of shares of our common stock (“Shares”) available for issuance under the 2014 Plan will be increased on the first day of each fiscal year in an amount equal to the least of (i) 8,000,000 Shares, (ii) five percent (5%) of the outstanding Shares on the last day of the immediately preceding fiscal year or (iii) such number of Shares determined by our board of directors; provided, however, that such determination under clause (iii) will be made no later than the last day of the immediately preceding fiscal year.

Director Compensation

Equity Compensation

Each non-employee director who first joins us will be granted an initial equity award with a value of $225,000 and each non-employee director will be granted an annual equity award with a value of $150,000 on each of our annual stockholder meetings. However, a continuing non-employee director who, as of the date of our annual stockholder meeting, has not served as a board member for the entire 12-month period prior to the annual stockholder meeting will receive an annual award with a value that is prorated based on the number of months the director served during the prior year. The initial and annual equity awards will be granted in the form of restricted stock units, and the number of shares to be granted pursuant to such equity awards will be determined by the closing price of a share of our common stock on the New York Stock Exchange on the grant date. However, a non-employee director who is not continuing as a director following an annual stockholder meeting will not receive an annual equity award at such meeting.

The initial equity award will be scheduled to vest in three, equal, annual installments from the date the non-employee director joins our board of directors, subject to continued service with us through each such date. Each annual award will vest as to 100% of the underlying shares on the earlier of the one year anniversary of the award's grant date or the date of our next annual stockholder meeting, subject to continued service with us through such date.

Cash Compensation

Our board of directors approved the following annual compensation package for our non-employee directors:

	Annual Cash Retainer ($)
Annual retainer	30,000
Additional retainer for audit committee chair	20,000
Additional retainer for audit committee member	7,500
Additional retainer for compensation committee chair	12,000
Additional retainer for compensation committee member	5,000
Additional retainer for nominating and governance committee chair	7,500
Additional retainer for nominating and governance committee member	3,500
Additional retainer for non-executive chairman of the board of directors	30,000
Additional retainer for independent lead director	15,000

Director Compensation for 2017

The following table provides information regarding the total compensation that was paid by the Company to each of our directors who was not serving as an executive officer in 2017.

Director	Fees Earned or Paid in Cash ($)	Option Awards ($)(1)	Stock Awards ($)(1)(2)	Total ($)
Peter Y. Chung	53,000	—	149,993	202,993
Alan S. Henricks	58,500	—	149,993	208,493
Phillip J. Salsbury	65,000	—	149,993	214,993

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(1) The aggregate number of shares of our common stock subject to option awards and stock awards outstanding at December 31, 2017, for each non-employee director is as follows:

Name	Aggregate Number of Option Awards Outstanding at December 31, 2017 (#)	Aggregate Number of Stock Awards Outstanding at December 31, 2017 (#)
Peter Y. Chung	—	18,359

Alan S. Henricks	30,000	18,359
Phillip J. Salsbury	—	18,359

(2) The amount reported in the Stock Awards column is the aggregate grant date fair value of the stock award, computed in accordance with equity compensation provisions of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718. As required by the rules of the SEC, the amount shown excludes the impact of estimated forfeitures related to service-based vesting conditions. Note that the amount reported in this column does not correspond to the actual economic value that may be received by the director from the award.

Compensation Committee Interlocks and Insider Participation

Messrs. Braham, Chung, Henricks and Salsbury are members of our compensation committee. None of the members of our compensation committee is or has been one of our officers or employees. None of our executive officers currently serves, or in the past year has served, as a member of the compensation committee or director (or other board committee performing equivalent functions or, in the absence of any such committee, the entire board of directors) of any entity that has one or more executive officers serving on our compensation committee or our board of directors.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of July 31, 2018 for:

- each of our directors and nominees for director;
- each of our named executive officers;
- all of our current directors and executive officers as a group; and
- each person or group, who beneficially owned more than 5% of our common stock.

We have determined beneficial ownership in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially owned, subject to community property laws where applicable.

We have based our calculation of the percentage of beneficial ownership on 72,707,302 shares of our common stock outstanding as of July 31, 2018. We have deemed shares of our common stock subject to stock options that are currently exercisable or exercisable within 60 days of July 31, 2018 or issuable pursuant to RSUs which are subject to vesting conditions expected to occur within 60 days of July 31, 2018 to be outstanding and to be beneficially owned by the person holding the stock option or RSU for the purpose of computing the percentage ownership of that person. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o A10 Networks, Inc., 3 West Plumeria Drive, San Jose, California 95134. The information provided in the table is based on our records, information filed with the SEC and information provided to us, except where otherwise noted.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
5% Stockholders:			
Lee Chen(1)	9,963,869	13.70	%
Entities affiliated with Summit Partners, L.P.(2)	9,492,417	13.06	%
Blackrock, Inc.(3)	4,600,752	6.33	%
AllianceBernstein L.P.(4)	3,876,042	5.33	%
The Vanguard Group(5)	3,852,130	5.30	%
Entities affiliated with VIEX Capital Advisors, LLC(6)	3,797,383	5.22	%
Named Executive Officers and Directors:			
Lee Chen(1)	9,963,869	13.70	%
Peter Y. Chung(2)	9,492,417	13.06	%
Rajkumar Jalan(7)	726,587	1.00	%
Robert Cochran(8)	504,330	*	
Phillip J. Salsbury(9)	129,571	*	
Tom Constantino(10)	85,937	*	
Alan S. Henricks(11)	71,981	*	
Tor R. Braham	25,100	*	
All current executive officers and directors as a group (10 persons)(12)	20,993,839	28.87	%

* Represents beneficial ownership of less than one percent (1%).

(1) Includes (i) 9,778,222 shares of common stock held by Mr. Chen; and (ii) 3,200 shares of common stock held by the U/A DTD 07/25/2000 Lee Chen Family Trust, for which Mr. Chen serves as a trustee. Includes 182,447 shares issuable upon exercise of options exercisable within 60 days after July 31, 2018.

(2) Includes (i) 6,873,136 shares of common stock held of record by Summit Partners Growth Equity Fund VIII-A, L.P.; (ii) 2,510,989 shares of common stock held of record by Summit Partners Growth Equity Fund VIII-B, L.P.; (iii) 40,186 shares of common stock held of record by Summit Investors I, LLC, (iv) 3,535 shares of common stock held of record by Summit Investors I (UK), L.P. and (v) 46,212 shares held in the name of Peter Y. Chung. Also, includes 18,359 restricted stock units granted to Peter Y. Chung as part of the director compensation program on May 31, 2017. The restricted stock units vested on May 31, 2018 and will be settled solely by delivery of an equal number of shares of common stock when the company becomes current on all of its SEC filings. Peter Y. Chung holds shares and any restricted stock units for the benefit of Summit Partners, L.P., which he has empowered to determine when the underlying shares will be sold and which is entitled to the proceeds of any such sales. Summit Partners, L.P. is the managing member of Summit Partners GE VIII, LLC, which is the general partner of Summit Partners GE VIII, L.P., which is the general partner of each of Summit Partners Growth Equity Fund VIII-A, L.P. and Summit Partners Growth Equity Fund VIII-B, L.P. Summit Master Company, LLC is the managing member of Summit Investors Management, LLC, which is the manager of Summit Investors I, LLC, and the general partner of Summit Investors I (UK), L.P. Summit Master Company, LLC, as the managing member of Summit Investors Management, LLC, has delegated investment decisions, including voting and dispositive power, to Summit Partners, L.P. and its Investment Committee. Summit Partners, L.P., through a two person Investment Committee currently composed of Martin J. Mannion and Peter Y. Chung, has voting and dispositive authority over the shares held by each of these entities and therefore may be deemed to beneficially owns such shares. In addition, Mr. Chung is a member of Summit Master Company, LLC. Each of the Summit entities mentioned herein, Summit Partners, L.P., Summit Master Company, LLC, Mr. Mannion and Mr. Chung disclaim beneficial ownership of the shares of common stock and the restricted stock units in each case, to the extent of it or his pecuniary interest

therein. The address for each of these entities and persons is 222 Berkeley Street, 18th Floor, Boston, MA 02116.

(3) A Schedule 13G was filed with the SEC on January 29, 2018 by BlackRock, Inc. (“BlackRock”), 55 East 52nd Street, New York, NY 10055. BlackRock is a parent holding company with the following subsidiaries who are also beneficial owners: BlackRock International Limited, BlackRock Advisors, LLC, BlackRock Investment Management (UK) Limited, BlackRock Asset Management Canada Limited, BlackRock (Netherlands) B.V., BlackRock Fund Advisor, BlackRock Asset Management Ireland Limited, BlackRock Institutional Trust Company, National Association, BlackRock Financial Management, Inc., BlackRock Japan Co., Ltd., BlackRock Investment Management, LLC. This Schedule 13G reports that BlackRock has sole voting power with respect to 4,391,607 shares and sole dispositive power with respect to 4,600,752 shares beneficially owned as of December 31, 2017.

(4) A Schedule 13G was filed with the SEC on February 13, 2018 by AllianceBernstein L.P. (“AllianceBernstein”), 1345 Avenue of the Americas, New York, NY 10105. This Schedule 13G reports that AllianceBernstein has sole voting power with respect to 3,126,650 shares and sole dispositive power with respect to 3,876,042 shares beneficially owned as of December 31, 2017.

(5) A Schedule 13G was filed with the SEC on February 8, 2018 by The Vanguard Group (“Vanguard”), 100 Vanguard Blvd., Malvern, PA 19355. Vanguard is a parent holding company with the following subsidiaries who are also beneficial owners: Vanguard Fiduciary Trust Company, which is the beneficial owner of 93,063 shares, and Vanguard Investments Australia, Ltd., which is the beneficial owner of

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8,200 shares. This Schedule 13G reports that Vanguard has sole voting power with respect to 99,512 shares, shared voting power with respect to 1,751 shares, sole dispositive power with respect to 3,757,316 shares, and shared dispositive power with respect to 94,814 shares beneficially owned as of December 31, 2017.

(6) A Schedule 13D/A was filed with the SEC on March 16, 2018 by VIEX Opportunities Fund, LP - Series One ("Series One"), VIEX Special Opportunities Fund II, LP ("VSO II"), VIEX GP, LLC ("VIEX GP"), VIEX Special Opportunities GP II, LLC ("VSO GP II"), VIEX Capital Advisors, LLC ("VIEX Capital"), and Eric Singer, as managing member of each of VIEX GP, VSO GP II and VIEX Capital, 825 Third Avenue, 33rd Floor, New York, NY 10022. This Schedule 13D/A reports that Series One is the beneficial owner of 1,763,575 shares and VSO II is the beneficial owner of 2,033,808 shares. As the general partner of Series One, VIEX GP may be deemed the beneficial owner of the 1,763,575 shares beneficially owned by Series One, and as the general partner of VSO II, VSO GP II may be deemed the beneficial owner of the 2,033,808 shares beneficially owned by VSO II. As the investment manager or Series One and VSO II, VIEX Capital may be deemed the beneficial owner of the (i) 1,763,575 shares beneficially owned by Series One and (ii) 2,303,808 shares beneficially owned by VSO II. As the managing member of VIEX GP and VIEX Capital, Eric Singer may be deemed the beneficial owner of the (i) 1,763,575 shares beneficially owned by Series One and (ii) 2,303,808 shares beneficially owned by VSO II.

(7) Includes 377,081 shares issuable upon exercise of options exercisable within 60 days after July 31, 2018.

(8) Includes 409,893 shares issuable upon exercise of options exercisable within 60 days after July 31, 2018.

(9) Includes 18,359 restricted stock units granted to Mr. Salsbury as part of the director compensation program on May 31, 2017. The restricted stock units vested on May 31, 2018 and will be settled solely by delivery of an equal number of shares of common stock when the company becomes current on all of its SEC filings.

(10) Includes 42,187 shares issuable upon exercise of options exercisable within 60 days after July 31, 3018. Also includes 43,750 restricted stock units that vested on June 14, 2018 and will be settled shortly by delivery of an equal number of shares of common stock when the company becomes current on all of its SEC filings (including a number of shares which will be automatically sold on Mr. Constantino's behalf to cover taxes on such RSU release, pursuant to the terms of the Restricted Stock Unit Agreement related to such shares)

(11) Includes 30,000 shares issuable upon exercise of options exercisable within 60 days after July 31, 2018 and 18,359 restricted stock units granted to Mr. Henricks as part of the director compensation program on May 31, 2017. The restricted stock units vested on May 31, 2018 and will be settled solely by delivery of an equal number of shares of common stock when the company becomes current on all of its SEC filings.

(12) Includes 1,079,108 shares issuable upon exercise of options held by our current executive officers and directors exercisable within 60 days after July 31, 2018 and 102,202 shares issuable pursuant to RSUs which either have vested but have not yet been released or are subject to vesting conditions expected to occur within 60 days of July 31, 2018 held by our current executive officers and directors.

ITEM 13. CERTAIN RELATIONSHIPS, RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

We describe below transactions and series of similar transactions, since the beginning of our last fiscal year, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, nominees for director, executive officers or holders of more than 5% of our outstanding capital stock, or any immediate family member of, or person sharing the household with, any of these individuals or entities, had or will have a direct or indirect material interest.

Other than as described below, there has not been, nor is there any currently proposed, transactions or series of similar transactions to which we have been or will be a party.

Investors Rights Agreement

We are party to an investors rights agreement which provides, among other things, that certain holders of our common stock have the right to demand that we file a registration statement, or request that the shares of such stock be covered by a registration statement that we are otherwise filing, subject to certain exceptions. Lee Chen, our President and Chief Executive Officer, Robert Cochran, our Executive Vice President, Legal and Corporate Collaborations, and certain entities affiliated with Summit Partners, L.P., which hold more than 5% of our outstanding capital stock and one of whose managing directors, Peter Y. Chung, is a member of our board of directors, are parties to the investors rights agreement.

Employment Arrangements and Indemnification Agreements

We have entered into employment and consulting arrangements with certain of our current and former executive officers. See “Executive Officer Employment Agreements.”

We have also entered into indemnification agreements with certain directors and officers of ours. The indemnification agreements and our restated certificate of incorporation currently in effect and bylaws in effect upon the completion of this offering require us to indemnify our directors and officers to the fullest extent permitted by Delaware law.

Equity Award Grants to Executive Officers and Directors

We have granted stock options, RSUs and/or PSUs to our executive officers and our non-employee directors. See the sections entitled "Executive Compensation" above.

Other Transactions

Other than as described above under this section titled "Related Party Transactions," since January 1, 2017, we have not entered into any transactions, nor are there any currently proposed transactions, between us and a related party where the amount involved exceeds, or would exceed, $120,000, and in which any related person had or will have a direct or indirect material interest. We believe the terms of the transactions described above were comparable to terms we could have obtained in arm's-length dealings with unrelated third parties.

Policies and Procedures for Related Party Transactions

The audit committee of our board of directors has the primary responsibility for reviewing and approving transactions with related parties. Our audit committee charter provides that the audit committee may review and approve in advance any related party transactions.

We have adopted a formal written policy providing that our executive officers, directors, nominees for election as directors, beneficial owners of more than 5% of any class of our common stock, any member of the immediate family of any of the foregoing persons, and any firm, corporation, or other entity in which any of the foregoing persons is employed, is a general partner or principal or in a similar position, or in which such person has a 5% or greater beneficial ownership interest, is not permitted to enter into a related party transaction with us without the consent of our audit committee, subject to the exceptions described below. In approving or rejecting any such proposal, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to our audit committee, including, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances, and the extent of the related party's interest in the transaction. Our audit committee has determined that certain transactions shall be deemed to be pre-approved by the audit committee, even if the aggregate amount involved will exceed $120,000, including certain employment arrangements of executive officers, director compensation, transactions with another company at which a related party's only relationship is as a non-executive employee or beneficial owner of less than 5% of that company's shares, transactions where a related party's interest arises solely from the ownership of our common stock and all holders of our common stock received the same benefit on a pro rata basis, and transactions available to all employees generally.

Director Independence

Our common stock is listed on the New York Stock Exchange. Under the listing standards of the New York Stock Exchange, independent directors must comprise a majority of a listed company's board of directors. In addition, the listing standards of the New York Stock Exchange require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and corporate governance committees be independent. Under the listing standards of the New York Stock Exchange, a director will only qualify as an "independent director" if, in the opinion of that listed company's board of directors, that director does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the listing standards of the New York Stock Exchange. In addition, compensation committee members must also satisfy the independence criteria set forth under the listing standards of the New York Stock Exchange.

Our board of directors has undertaken a review of the independence of each director. Based on information provided by each director concerning his background, employment and affiliations, our board of directors has determined that Messrs. Braham, Chung, Henricks and Salsbury do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the listing standards of the New York Stock Exchange. In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director, and the transactions involving them described in the section titled "Related Party Transactions."

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S FEES

The following table represents aggregate fees billed to the Company for fiscal years ended December 31, 2017 and 2016 by Deloitte & Touche LLP ("Deloitte"), the Company's independent registered public accounting firm. All services described below for 2017 and 2016 were pre-approved by the Audit Committee.

	2017	2016
Audit Fees(1)	$2,344,465	$1,009,904
Audit-Related Fees(2)	159,771	—
Tax Fees(3)	—	—
All Other Fees(4)	—	14,000
Total Fees	$2,504,236	$1,023,904

(1) Audit Fees consist of professional services rendered in connection with the audit of our annual consolidated financial statements, including audited financial statements presented in our Annual Report on Form 10-K and services that are normally provided by the independent registered public accountants in connection with statutory and regulatory filings or engagements for those fiscal years.

(2) Audit-Related Fees consist of fees for professional services for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported under "Audit Fees." These services include accounting consultations concerning financial accounting and reporting standards.

(3) Tax Fees consist of fees for professional services for tax compliance, tax advice and tax planning. These services include assistance regarding federal, state and international tax compliance.

(4) All Other Fees consist of permitted services other than those that meet the criteria above.

Audit Committee Policy on Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Our audit committee has established a policy governing our use of the services of our independent registered public accounting firm. Under the policy, our audit committee is required to pre-approve all audit and non-audit services performed by our independent registered public accounting firm in order to ensure that the provision of such services does not impair the public accountants' independence. All fees paid to Deloitte for our fiscal years ended December 31, 2017 and 2016 were pre-approved by our audit committee.

PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

1. Consolidated Financial Statements:

   Our Consolidated Financial Statements are listed in the Index to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

   All other schedules have been omitted as they are not required, not applicable, or the required information is otherwise included.

2. Exhibits:

   The documents listed in the Exhibit Index of this Annual Report on Form 10-K are incorporated by reference or are filed with this report, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

ITEM 16. FORM 10-K SUMMARY

None.

EXHIBIT INDEX

Exhibit Number	Description	Incorporated By Reference Form	SEC File No.	Exhibit Number	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of the Registrant	S-1/A	333-194015	3.1	March 10, 2014	
3.2	Amended and Restated Bylaws of the Registrant	S-1/A	333-194015	3.2	March 10, 2014	
4.1	Form of common stock certificate of the Registrant	S-1/A	333-194015	4.1	March 10, 2014	
4.2	Amended and Restated Investors' Rights Agreement among the Registrant and certain holders of its capital stock, amended as of October 4, 2013	S-1/A	333-194015	4.2	March 10, 2014	
10.1*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers	S-1/A	333-194015	10.1	March 10, 2014	
10.3*	2008 Stock Plan and forms of agreements thereunder	10-Q	001-36343	10.2	May 13, 2014	
10.4*	Amended and Restated 2014 Equity Incentive Plan	10-Q	001-36343	10.1	August 6, 2015	
10.5*	2014 Employee Stock Purchase Plan and forms of agreements thereunder	S-1/A	333-194015	10.5	March 10, 2014	
10.6*	Form of Stock Option Agreement pursuant to the 2008 Stock Plan	10-Q	001-36343	10.2	August 4, 2014	
10.7*	Form of Stock Option Agreement- Early Exercise pursuant to the 2008 Stock Plan	10-Q	001-36343	10.3	August 4, 2014	
10.8*	Form of Stock Option Agreement pursuant to the Amended and Restated 2014 Equity Incentive Plan	10-Q	001-36343	10.4	August 4, 2014	
10.9*	Form of Restricted Stock Unit Agreement pursuant to the Amended and Restated 2014 Equity Incentive Plan	10-Q	001-36343	10.5	August 4, 2014	
10.10*	Offer Letter, dated July 30, 2004, by and between the Registrant and Lee Chen	S-1/A	333-194015	10.6	March 10, 2014	
10.11*	Offer Letter, dated November 3, 2008, by and between the Registrant and Rajkumar Jalan	S-1/A	333-194015	10.7	March 10, 2014	
10.12*	Offer Letter, dated January 4, 2012, by and between the Registrant and Robert Cochran	S-1/A	333-194015	10.9	March 10, 2014	
10.13	Reseller Agreement, dated April 2, 2009, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.12	February 18, 2014	
10.14	First Amendment to Reseller Agreement, dated May 19, 2011, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.13	February 18, 2014	
10.15	Second Amendment to Reseller Agreement, dated April 1, 2011, by and between the Registrant and	S-1/A	333-194015	10.14	February 18, 2014	

	NEC Corporation				
10.16	Third Amendment to Reseller Agreement, dated April 1, 2011, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.15	February 18, 2014
10.17	Fourth Amendment to Reseller Agreement, dated October 3, 2011, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.16	February 18, 2014
10.18	Fifth Amendment to Reseller Agreement, dated April 2, 2012, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.17	February 18, 2014
10.19	Sixth Amendment to Reseller Agreement, dated November 29, 2012, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.18	February 18, 2014
10.20	Seventh Amendment to Reseller Agreement, dated April 9, 2013, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.19	February 18, 2014
10.21	Eighth Amendment to Reseller Agreement, dated October 22, 2013, by and between the Registrant and NEC Corporation	S-1/A	333-194015	10.20	February 18, 2014

Exhibit Number	Description	Incorporated By Reference Form	SEC File No.	Exhibit Number	Filing Date	Filed Herewith
10.22	Ninth Amendment to Reseller Agreement, executed on April 22, 2014, by and between the Registrant and NEC Corporation	10-Q	001-36343	10.1	August 4, 2014	
10.23	Manufacturing Services Agreement, dated December 8, 2006, by and between the Registrant and Lanner Electronics (USA)	S-1/A	333-194015	10.21	February 18, 2014	
10.24	Amendment No. 1 to Manufacturing Services Agreement, dated June 27, 2013, by and between the Registrant and Lanner Electronics (USA)	S-1/A	333-194015	10.22	February 18, 2014	
10.25	Contract Manufacturer Agreement, dated July 1, 2008, by and between the Registrant and AEWIN Technologies, Inc.	S-1/A	333-194015	10.23	February 18, 2014	
10.26	Amendment No. 1 to Contract Manufacturer Agreement, dated July 1, 2008, by and between the Registrant and AEWIN Technologies, Inc.	10-K	001-36343	10.31	March 11, 2015	
10.27*	Form of Change in Control and Severance Agreement	S-1/A	333-194015	10.25	March 10, 2014	
10.28*	Executive Incentive Compensation Plan	10-K	001-6343	10.32	March 1, 2016	
10.29	Loan and Security Agreement, dated as of November 1, 2016, between A10 Networks, Inc. and Silicon Valley Bank	10-Q	001-36343	10.1	November 3, 2016	
10.30*	Transition Letter, dated March 29, 2017, by and between the Registrant and Greg Straughn	10-Q	001-36343	10.1	May 5, 2017	
10.31*	Offer Letter, dated May 14, 2017, by and between the Registrant and Tom Constantino	10-Q	001-36343	10.1	August 3, 2017	
10.32*	Transition Agreement, dated November 6, 2017, by and between the Registrant and Rey Smets					X
10.33*	Offer Letter, dated December 15, 2017, by and between the Registrant and Christopher White					X
21.1	List of subsidiaries of the Registrant					X
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act					X
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act					X
32.1 **	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act					X
32.2 **	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act					X
101.INS	XBRL Instance Document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.					X

101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	X

* Indicates a management contract or compensatory plan.

** The certifications attached as Exhibit 32.1 and 32.2 that accompany this Annual Report on Form 10 K are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of A10 Networks, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10 K, irrespective of any general incorporation language contained in such filing.

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SIGNATURES

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

A10 NETWORKS, INC.

Date: August 28, 2018

By: /s/ Lee Chen
Lee Chen
Chief Executive Officer and President
(Principal Executive Officer)

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

Signature	Title	Date
/s/ Lee Chen Lee Chen	Chief Executive Officer, President and Director (Principal Executive Officer)	August 28, 2018
/s/ Tom Constantino Tom Constantino	Chief Financial Officer (Principal Accounting and Financial Officer)	August 28, 2018
/s/ Robert Cochran Robert Cochran	Executive Vice President, Legal and Corporate Collaboration and Secretary and Director	August 28, 2018
/s/ Peter Y. Chung Peter Y. Chung	Director	August 28, 2018
/s/ Alan S. Henricks Alan S. Henricks	Director	August 28, 2018
/s/ Phillip J. Salsbury Phillip J. Salsbury	Director	August 28, 2018
/s/ Tor R. Braham Tor R. Braham	Director	August 28, 2018