

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

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended July 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 001-35594

Palo Alto Networks, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-2530195
(I.R.S. Employer
Identification No.)

3000 Tannery Way
Santa Clara, California 95054
(Address of principal executive offices, including zip code)

(408) 753-4000
(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, par value \$0.0001 per share	New York Stock Exchange LLC
Securities registered pursuant to Section 12(g) of the Act:	
None	

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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

The aggregate market value of voting stock held by non-affiliates of the registrant was \$13,100,300,364 as of January 31, 2017, the last business day of the registrant's most recently completed second fiscal quarter (based on the closing sales price for the common stock on the New York Stock Exchange on such date). Shares of common stock held by each executive officer, director, and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

On August 24, 2017, 91,842,364 shares of the registrant's common stock, \$0.0001 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the information called for by Part III of this Annual Report on Form 10-K is hereby incorporated by reference from the definitive proxy statement for the registrant's annual meeting of stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year ended July 31, 2017.

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PART I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections entitled “Business,” “Risk Factors,” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “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:

- trends in and expectations regarding revenue (including our revenue mix), costs of revenue, gross margin, cash flows, interest expense, and operating expenses (including future share-based compensation expense);
- our ability to and expectation that we will continue to grow our installed end-customer base;
- our expectations regarding future investments in research and development, customer support, and in our sales force, including expectations regarding growth in our sales headcount;
- our ability to develop or acquire new product, subscription, and support offerings, improve our existing product, subscription, and support offerings, and increase the value of our product, subscription, and support offerings;
- our expectation that we will continue to expand internationally;
- our expectation that we will continue to renew existing contracts and increase sales to our existing customer base;
- seasonal trends in our results of operations;
- our expectation that we will expand our facilities or add new facilities as we add employees and enter new geographic markets and expectations related to charges incurred in connection with exiting our former headquarter facilities;
- the sufficiency of our cash flow from operations with existing cash and cash equivalents to meet our cash needs for the foreseeable future;
- future investments in product development, subscriptions, or technologies, and any related delays in the development or release of new product and subscription offerings;
- our ability to successfully acquire and integrate companies and assets; and
- the timing and amount of capital expenditures and share repurchases.

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in “Risk Factors” included in Part I, Item 1A 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. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

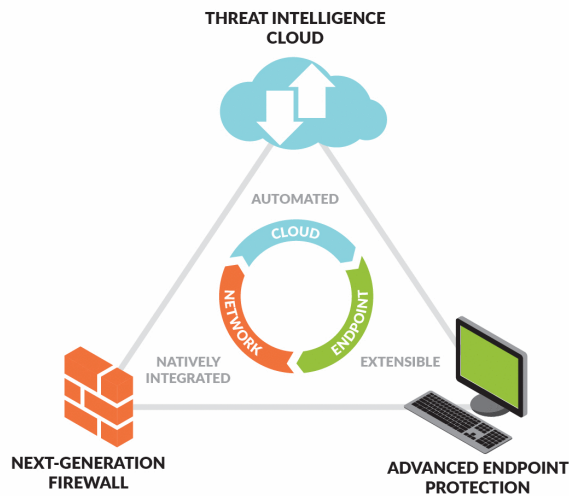
ITEM 1. BUSINESS

General

We have pioneered the next generation of security through our innovative platform that allows enterprises, service providers, and government entities to secure their organizations by safely enabling applications running on their networks and by preventing successful breaches that stem from targeted cyberattacks. Our platform uses an innovative traffic classification engine that identifies network traffic by application, user, and content and provides consistent security across the network, endpoint, and cloud. Accordingly, our platform enables our end-customers to maintain the visibility and control needed to protect their valued data and critical control systems while pursuing technology initiatives, like cloud and mobility, that grow their business. We believe our platform offers superior performance compared to legacy approaches and reduces the total cost of ownership for organizations by simplifying their security operations and infrastructure and eliminating the need for multiple, stand-alone security appliances and software products.

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Our Next-Generation Security Platform consists of three major elements: our Next-Generation Firewall, our Advanced Endpoint Protection, and our Threat Intelligence Cloud.



Our Next-Generation Firewall comes in several physical and cloud-based software form-factors and delivers application, user, and content visibility and control as well as protection against network-based cyberthreats integrated within the firewall through our proprietary hardware and software architecture. Our Advanced Endpoint Protection software prevents cyberattacks that aim to run malicious code or exploit software vulnerabilities on a broad variety of fixed, mobile, and virtual endpoints and servers. Our Threat Intelligence Cloud provides central intelligence capabilities, security for software as a service (“SaaS”) applications, and automated delivery of preventative measures against cyberattacks.

We were incorporated in 2005 as Palo Alto Networks, Inc., a Delaware corporation. Our corporate headquarters are located in Santa Clara, California.

Product, Subscription, and Support Offerings

Firewall Appliances and Software. All of our firewall appliances and software incorporate our PAN-OS operating system and come with the same rich set of features ensuring consistent operation across our entire product line. These features include: App-ID, User-ID, site-to-site virtual private network (“VPN”), remote access Secure Sockets Layer (“SSL”) VPN, and Quality-of-Service (“QoS”). Our appliances and software are designed for different performance requirements throughout an organization and are classified based on throughput, ranging from our PA-200, which is designed for enterprise remote offices, to our top-of-the-line PA-7080, which is designed for large scale data centers and service provider use. Our firewall appliances come in a physical form factor as well as in a virtual form factor, called VM-Series, that is available for virtualization and cloud environments from companies such as VMware, Inc. (“VMware”), Microsoft Corporation (“Microsoft”), and Amazon.com, Inc. (“Amazon”), and in Kernel-based Virtual Machine (“KVM”)/OpenStack environments.

Panorama. Panorama is our centralized security management solution for global control of all of our firewall appliances and software deployed on an end-customer’s network as well as in their instances in public cloud environments as a virtual appliance or a physical appliance. Panorama is used for centralized policy management, device management, software licensing and updates, centralized logging and reporting, and log storage. Panorama controls the security, network address translation (“NAT”), QoS, policy based forwarding, decryption, application override, captive portal, and distributed denial of service/denial of service (“DDoS/DoS”) protection aspects of the appliances, software, and virtual systems under management. Panorama centrally manages device software and associated updates, including SSL-VPN clients, GlobalProtect clients, dynamic content updates, and software licenses. Panorama offers the ability to view logs and run reports from all managed appliances and software without the need to forward the logs and to report on aggregate user activity for all users, including mobile users. Panorama reliably expands the log storage for long-term event investigation and analysis through high-availability features for central management.

Virtual System Upgrades. Virtual System Upgrades are available as extensions to the Virtual System capacity that ships with our physical appliances. Virtual Systems provide a mechanism to support multiple distinct security policies and administrative access for tenants on the same hardware device, which is applicable to our large enterprise and service provider end-customers.

Subscription Offerings. We offer a number of subscriptions as part of our platform. Of these subscription offerings, Threat Prevention Subscription, URL Filtering Subscription, WildFire Subscription, and GlobalProtect Subscription are sold as options to our firewall appliances and software, whereas VM-Series, Traps, AutoFocus, Aperture, GlobalProtect cloud service, and Logging Service are sold on a per-user, per-endpoint, or capacity-based basis. Our subscription offerings include:

- **Threat Prevention Subscription.** This subscription provides the intrusion detection and prevention capabilities of our platform. Our threat prevention engine blocks vulnerability exploits, viruses, spyware, buffer overflows, denial-of-service attacks, and port scans from compromising and damaging enterprise information resources. It includes mechanisms such as protocol decoder-based analysis, protocol anomaly-based protection, stateful pattern matching, statistical anomaly detection, heuristic-based analysis, custom vulnerability, and spyware “phone home” signatures.
- **URL Filtering Subscription.** This subscription provides the uniform resource locator (“URL”) filtering capabilities of our platform. The URL filtering database consists of millions of URLs across many categories and is designed to monitor and control employee web surfing activities. The on-appliance URL database can be augmented to suit the traffic patterns of the local user community with a custom URL database. URLs that are not categorized by the local URL database can be pulled into a separate, cache-based URL database from a very extensive, cloud-based URL database.
- **WildFire Subscription.** This cloud-based or appliance-based subscription provides protection against targeted malware and advanced persistent threats, and provides a near real-time analysis engine for detecting previously unseen malware. The core component of this subscription is a sandbox environment that can operate on an end-customers’ private cloud or our public cloud where files can be run and monitored for more than 100 behavioral characteristics that identify the file as malware. Once identified, preventive measures are automatically generated and delivered to all subscribed devices. By providing this as a cloud-based subscription, all of our end-customers benefit from malware found on any network.
- **GlobalProtect Subscription.** This appliance-based subscription provides protection for mobile users of both traditional laptop devices and mobile devices. It expands the boundaries of the physical network, effectively establishing a logical perimeter that encompasses remote laptop and mobile device users irrespective of their location. When a remote user logs into the device, GlobalProtect automatically determines the closest gateway available to the roaming device and establishes a secure connection. Windows and Apple laptops as well as mobile devices, such as Android phones and tablets and Apple iPhones and iPads, will stay connected to the corporate network whenever they are on a network of any kind. As a result, they are protected as if they never left the corporate campus. GlobalProtect ensures that the same secure application enablement policies that protect users at the corporate site are enforced for all users, independent of their location.
- **VM-Series Subscription.** VM-Series, the software form factor of our Next-Generation Firewall, is offered as both a perpetual license as well as a term-based subscription. The VM-Series provides all of the same security capabilities of our hardware appliances, but is delivered as a software package that can be deployed on VMware’s NSX and ESXi, Microsoft’s Hyper-V, and Red Hat KVM hypervisors, as well as natively in Amazon Web Services cloud and Microsoft Azure cloud.
- **Traps Endpoint Protection Subscription.** This subscription provides protection for endpoints against cyberattacks that aim to run malicious code or exploit software vulnerabilities. It prevents known and previously unknown attacks through its unique capability of stopping the underlying exploit techniques and can prevent cyberattacks without relying on prior knowledge of the attack. Through its integration with WildFire, it is also capable of preventing cyberattacks that rely on malware.
- **AutoFocus Subscription.** This cloud-based subscription provides threat intelligence capabilities to our end-customers’ security operations teams. Indicators of compromise and anomalies that occur on an end-customer’s network can be correlated with similar data that has been centrally collected by us in our Threat Intelligence Cloud from among all our participating end-customers. This offers our end-customers priority alerts, deep attack context, and high-fidelity threat intelligence across millions of malware samples and tens of billions of file artifacts.
- **Aperture Subscription.** This cloud-based subscription provides content control for IT-sanctioned SaaS applications that are used to store and share end-customer’s data. It offers end-customers the capability to safely use these SaaS applications and avert risks associated with improper sharing of confidential data and risks associated with sharing of malicious content.
- **GlobalProtect Cloud Service Subscription.** This cloud-based subscription, expected to be released in September 2017, enables our end-customers to utilize the preventive capabilities of our Next-Generation Security Platform to secure remote offices and mobile users, providing consistent protection across globally distributed network and cloud environments without the need for firewall appliances or software in the remote locations. With this offering, our end-

customers can quickly and easily add or remove remote locations and users, and establish and adjust security policies as needed, using a multi-tenant, cloud-based security infrastructure that we operate on their behalf.

- **Logging Service Subscription.** This cloud-based subscription, expected to be released in September 2017, allows our end-customers to collect large amounts of context-rich enhanced network logs generated by our security offerings, including those of our firewalls and GlobalProtect Cloud-Based Security subscription, without needing to plan for local compute and storage.

Support. We offer Standard Support, Premium Support, and four-hour Premium Support to our end-customers and channel partners. Our channel partners that operate a Palo Alto Networks Authorized Support Center (“ASC”) typically deliver level-one and level-two support. We provide level-three support 24 hours a day, seven days a week through regional support centers that are located worldwide. We also offer an annual subscription-based Technical Account Management (“TAM”) service that provides dedicated support for end-customers with unique or complex support requirements. We offer our end-customers ongoing support for both hardware and software in order to receive ongoing security updates, PAN-OS upgrades, bug fixes, and repair. End-customers typically purchase these services for a one-year or longer term at the time of the initial product sale and typically renew for successive one-year or longer periods. Additionally, we provide expedited replacement for any defective hardware. We use a third-party logistics provider to manage our worldwide deployment of spare appliances and other accessories.

Professional Services. Professional services are primarily delivered through our authorized channel partners and include on-location, hands-on experts who plan, design, and deploy effective security solutions tailored to our end-customers’ specific requirements. These services include application traffic management, solution design and planning, configuration, and firewall migration. Our education services provide online and classroom-style training and are also primarily delivered through our authorized partners.

Technology

We combine our proprietary hardware and software architecture, PAN-OS operating system, Traps, and Threat Intelligence Cloud to provide a comprehensive security platform. Our Next-Generation Firewall integrates application visibility and control and is comprised of three identification technologies: App-ID, User-ID, and Content-ID. These technologies allow organizations to enable the secure use of applications while managing the inherent risks of doing so. These fine-grained policy management and enforcement capabilities are delivered at low latency, multi-gigabit performance through our innovative single-pass, parallel processing (“SP3”) architecture.

App-ID. App-ID is our application classification engine that uses multiple identification techniques to determine the exact identity of applications traversing the network. App-ID is the foundational classification engine that provides the core traffic classification to all other functions in our platform. The App-ID classification is used to invoke other security functions.

App-ID uses a series of classification techniques to accurately identify an application. When traffic first enters the network, App-ID applies an initial policy check based on Internet Protocol (“IP”) and port. Signatures are then applied to the traffic to identify the application based on application properties and related transaction characteristics. If the traffic is encrypted and a decryption policy is in place, the application is first decrypted, then application signatures are applied. Additional context-based signature analysis is then performed to identify known protocols that may be hiding other applications. Encrypted traffic that was decrypted is then re-encrypted before being sent back into the network. For evasive applications that cannot be identified through advanced signature and protocol analysis, heuristics or behavioral analysis are used to determine the identity of the application. When an application is accurately identified during this series of successive techniques, the policy check determines how to treat the application and associated functions. The policy check can block the application, allow it and scan for threats, inspect it for unauthorized file transfer and data patterns, or shape its use of network resources by applying a quality-of-service policy.

App-ID consistently classifies all network traffic, including business applications, consumer applications, and network protocols, across all ports. Consequently, there is no need to perform a series of signature checks to look for an application that is thought to be on the network. App-ID continually monitors the state of the application to determine if the application changes. Our platform allows only those applications within the policy to enter the network, while all other applications are blocked.

Internally developed or custom applications can be managed using either an application override or custom App-IDs. End-customers can use either of these mechanisms to apply the same level of control over their internal or custom applications that they apply to common applications. Because the application landscape is constantly changing, our research teams are constantly updating our App-ID classification engine. We deliver updated App-IDs automatically to our end-customers through our weekly update service.

User-ID. User-ID integrates our platform with a wide range of enterprise user directories and technologies, including Active Directory, eDirectory, Open LDAP, Citrix Terminal Server, Microsoft Exchange, Microsoft Terminal Server, and ZENworks. A network-based, User-ID agent communicates with the domain controllers, directories, or supported enterprise applications, mapping information such as user, role, and current IP address to the firewall, making the policy integration transparent. In cases

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where user repository information does not include the current IP address of the user, a transparent, captive portal authentication or challenge/response mechanism can be used to tie users into the security policy. In cases where a user repository or application is in place that already has knowledge of users and their current IP address, a standards-based application programming interface (“API”) can be used to tie the repository to our platform.

Content-ID. Content-ID is a collection of technologies that enables many of our subscription services. Content-ID combines a real-time threat prevention engine, a cloud-based analysis service, and a comprehensive URL categorization database to limit unauthorized data and file transfers, detect and block a wide range of threats, and control non-work related web surfing.

The threat prevention engine blocks several common types of attacks, including vulnerability exploits, buffer overflows, and port scans from compromising and damaging enterprise information resources. It includes mechanisms such as protocol decoder-based analysis, protocol anomaly-based protection, stateful pattern matching, statistical anomaly detection, heuristic-based analysis, custom vulnerability, and spyware “phone home” signatures.

Our cloud-based threat analysis service, WildFire, provides a near real-time analysis engine for detecting previously unseen targeted malware. The core component of WildFire is a sandbox environment that can be deployed in a customer’s private cloud or on our cloud where files can be run and monitored for more than 100 behavioral characteristics that identify the file as malware. Once identified, signatures are automatically generated and delivered to all end-customers that subscribe to the WildFire service. By providing WildFire as a cloud-based service, all of our end-customers benefit from malware found on any network or endpoint. Refer to the “WildFire” section below for a more detailed discussion of our WildFire technology.

Our URL filtering database consists of millions of URLs across many categories and is designed to monitor and control employee web surfing activities. The on-appliance URL database can be augmented to suit the traffic patterns of the local user community with a custom URL database. URLs that are not categorized by the local URL database can be pulled into an on-appliance data cache from a very extensive, cloud-based URL database. The data filtering features in our platform enable policies that reduce the risks associated with the transfer of unauthorized files and data. This can be achieved by blocking files by type, by controlling sensitive data, such as credit card and social security numbers in application content or attachments, and by controlling file transfers within applications.

SP3. SP3 is our proprietary software and hardware architecture that is comprised of two elements: single-pass software and parallel processing hardware.

Our single-pass software accomplishes two key functions in our platform. First, it performs operations once per packet. As a packet is processed, the networking functions, the policy lookup, the application identification and decoding, and the signature matching for any and all threats and content are all performed simultaneously. This significantly reduces the amount of processing required to perform multiple functions in one security device. Second, the content scanning step is stream-based and uses uniform signature matching to detect and block threats. Instead of using multiple scanning passes and file proxies, which require download prior to scanning, our single-pass software scans content once in a stream-based fashion to minimize latency. This results in very high throughput and low latency, even with all security functions active. It also offers a single, fully integrated policy, thus enabling easier management of security.

Our parallel processing hardware is designed to optimize single-pass software performance through the use of separate data and control planes, which means that heavy utilization of one does not negatively impact the performance of the other. Our hardware also uses discrete, specialized processing groups to perform critical functions. On the data plane, this includes functions such as networking, policy enforcement, encryption and decryption, decompression, and content scanning. On the control plane, this includes configuration management, logging, and reporting.

We believe that the combination of single-pass software and parallel processing hardware is unique in the enterprise security industry and allows our platform to safely enable applications and prevent cyberthreats at very high levels of performance and throughput.

PAN-OS Operating System. Our PAN-OS operating system provides the foundation for our security platform and contains App-ID, User-ID, and Content-ID. PAN-OS performs the core functions of our platform while also providing the networking, security, and management functions needed for implementation. The PAN-OS networking functions include dynamic routing, switching, high availability, and VPN support, which enables deployment into a broad range of networking environments.

We have the ability to enable a series of virtual firewall instances or virtual systems. Each virtual system is an independent (virtual) firewall within the device that is managed separately and cannot be accessed or viewed by any other administrator of any other virtual system. This capability allows enterprises and service providers to separate firewall instances in departmental and multi-tenant managed services scenarios.

The security functions in PAN-OS are implemented in a single security policy and include application, application function, user, group, port, and service-based elements. Policy responses can range from open (allow but monitor for activity), to moderate

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(enabling certain applications or functions), to closed (deny). The tight integration of application control, users, and groups, and the ability to scan the allowed traffic for a wide range of threats minimizes the number of policies.

PAN-OS also includes attack protection capabilities, such as blocking invalid or malformed packets, IP defragmentation, Transmission Control Protocol (“TCP”) reassembly, and network traffic normalization. PAN-OS eliminates invalid and malformed packets, while TCP reassembly and IP defragmentation is performed to ensure the utmost accuracy and protection despite any attack evasion techniques.

WildFire. WildFire is our cloud-based malware analysis environment that offers a completely new approach to cybersecurity. Through native integration with our Next-Generation Firewall, the service brings advanced threat detection and prevention to every system deployed throughout the network, automatically sharing protections with all WildFire subscribers globally.

The service offers a unified, hybrid cloud architecture deployed via either a Palo Alto Networks run cloud, a private cloud appliance that maintains all data on the local network, or a combination of the two. This allows us to perform dynamic analysis of suspicious content in a cloud-based virtual environment to discover unknown threats, automatic creation and enforcement of best-in-class, content-based malware protections, and link detection in email, proactively blocking access to malicious websites.

Advanced attacks are not point-in-time events. Adversaries deliver attacks persistently, often using non-standard ports, protocols or encryption for subsequent attack stages. Like our Next-Generation Firewall, WildFire provides complete visibility into unknown threats within all traffic across thousands of applications, including Web traffic, email protocols (SMTP, IMAP, POP), and FTP, regardless of ports or encryption (SSL).

Once WildFire discovers a new threat, the service automatically generates protections across the attack lifecycle, blocking malicious files and command-and-control traffic. Uniquely, many of these protections are content-based, not relying on easily changed attributes such as hash, filename or URL, allowing the service to block the initial malware and future variants without any additional action or analysis. WildFire informs the protection of our other security services, blocking threats in-line through Threat Prevention (anti-malware, DNS, command-and-control), Web Security (malicious URLs in PAN-DB), and GlobalProtect (anti-malware for mobile devices).

Traps. Traps is our Advanced Endpoint Protection product that prevents advanced attacks originating from either exploits or malicious executables before any malicious activity can successfully run, regardless of software patches in place. If an attack attempt is made, Traps will immediately block the technique or techniques, terminate the process, and notify both the user and the administrator that an attack was thwarted. Whenever a block does occur, Traps will collect detailed forensics, including the offending process, the memory state when it was prevented, and many other details that are reported to the Endpoint Security Manager (“ESM”).

The Traps agent injects itself into each process as it is started. When an attacker attempts to exploit a software vulnerability, the Traps protection modules cause the exploit attempt to fail because Traps has already made the process impervious to those techniques. When the attempt is prevented, the Traps agent kills the process and reports all of the details to the ESM.

Traps policy is configured to protect over 100 processes - each one with dozens of proprietary exploit prevention modules (“EPMs”). However, unlike other products, Traps is not limited to protecting only those processes or applications. Our end-customers use Traps to protect all manner of processes and applications by simply adding them to the policy configuration. Processes that have been run on the endpoint automatically show up in the ESM console, making it easy to protect those processes with the click of a button. This is especially useful for those end-customers running industry-specific applications. In addition to protecting workstations, laptops, and servers, Traps can protect point-of-sale (“POS”) systems, automated teller machines (“ATMs”), supervisory control and data acquisition (“SCADA”), and any other applications from exploitation.

Certifications. Many of our products have been awarded Federal Information Processing Standard (“FIPS”) 140-2 Level 2, Common Criteria/National Information Assurance Partnership (“NIAP”) Evaluation Assurance Level (“EAL”) 2, Common Criteria/NIAP EAL4+, Network Equipment-Building System (“NEBS”), and ICSA Firewall certifications.

Research and Development

Our research and development effort is focused on developing new hardware and software and on enhancing and improving our existing product and subscription offerings. We believe that hardware and software are both critical to expanding our leadership in the enterprise security market. Our engineering team has deep networking, endpoint, and security expertise and works closely with end-customers to identify their current and future needs. In addition to our focus on hardware and software, our research and development team is focused on research into applications and threats, which allows us to respond to the rapidly changing application and threat landscape. We supplement our own research and development effort with technologies and products that we license from third parties. We test our products thoroughly to certify and ensure interoperability with third-party hardware and software products. Our research and development expense was \$347.4 million, \$284.2 million, and \$185.8 million in fiscal 2017, 2016, and 2015, respectively.

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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. In February 2017, we expanded our family of firewalls with the launch of several new appliances: our PA-220, which is designed for small branch offices and remote locations; our PA-800 series, which are ideal for medium-sized networks and branch and remote office environments; our PA-5200 series, which deliver security for high throughput environments in a compact form factor; and three new VM-Series virtual firewall models, which support cloud and virtualization initiatives ranging from virtualized branch offices to data center and service provider deployments. We also delivered PAN-OS 8.0, an important software release that expands security for public and private clouds, provides new SaaS application security functionality, and also provides the capabilities to prevent the theft and abuse of stolen credentials. Additionally, in February 2017 we acquired LightCyber Ltd. (“LightCyber”), a privately-held cybersecurity company. LightCyber’s technology expands the functionality of our platform through the addition of behavioral analytics, and will be the foundation for a new future subscription offering. We also expect to release two new cloud-based subscription offerings in September 2017: our GlobalProtect cloud service subscription, which provides our Next Generation Security Platform as a cloud-based service for remote offices and mobile users; and our Logging Service subscription, which functions as the central cloud-based repository for all application data and logs, and allows end-customers to collect data without needing to plan for local processing power and storage.

We plan to continue to significantly invest in our research and development effort as we evolve and extend the capabilities of our platform. For example, in June 2017, we announced the next phase in the evolution of our Next-Generation Security Platform: our Palo Alto Networks Application Framework. Our cloud-based Application Framework will extend the capabilities of our Next-Generation Security Platform and will introduce a new SaaS consumption model that will allow our end-customers to evaluate and deploy new capabilities via security applications developed by our engineering team, as well as those built by third-party developers and other security industry vendors. Under this new model, our end-customers will be able to rapidly implement these cloud-based security applications without having to deploy or manage additional products. We expect our Application Framework to become generally available in the early 2018 calendar year, with continuous and ongoing introduction of new security applications.

Intellectual Property

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the enterprise security industry have extensive patent portfolios and are regularly involved in both offensive and defensive litigation. We continue to grow our patent portfolio and own intellectual property and related intellectual property rights around the world that relate to our products, services, research and development, and other activities, and our success depends in part upon our ability to protect our core technology and intellectual property. We file patent applications to protect our intellectual property and believe that the duration of our issued patents is sufficient when considering the expected lives of our products.

We actively seek to protect our global intellectual property rights and to deter unauthorized use of our intellectual property by controlling access to and use of our proprietary software and other confidential information through the use of internal and external controls, including contractual protections with employees, contractors, end-customers and partners, and our software is protected by U.S. and international copyright laws. Despite our efforts to protect our intellectual property rights, our rights may not be successfully asserted in the future or may be invalidated, circumvented or challenged. In addition, the laws of various foreign countries where our offerings are distributed may not protect our intellectual property rights to the same extent as laws in the United States. See “Risk Factors-Claims by others that we infringe their proprietary technology or other rights could harm our business,” “Risk Factors-Our proprietary rights may be difficult to enforce or protect, which could enable others to copy or use aspects of our products or subscriptions without compensating us,” and “Legal Proceedings” below for additional information.

Competition

We operate in the intensely competitive enterprise security market that is characterized by constant change and innovation. Changes in the application, threat, and technology landscape result in evolving customer requirements for the protection from threats and the safe enablement of applications. Our main competitors fall into three categories:

- large networking vendors that incorporate security features in their products, such as Cisco Systems, Inc. (“Cisco”) and Juniper Networks, Inc. (“Juniper”), or those that have acquired, or may acquire, large network and endpoint security specialist vendors and have the technical and financial resources to bring competitive solutions to the market;
- independent security vendors such as Symantec Corporation (“Symantec”), Check Point Software Technologies Ltd. (“Check Point”), Fortinet, Inc. (“Fortinet”), and FireEye, Inc. (“FireEye”) that offer a mix of network and endpoint security products; and
- small and large companies that offer point solutions and/or cloud security services that compete with some of the features present in our platform.

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As our market grows, it will attract more highly specialized vendors as well as larger vendors that may continue to acquire or bundle their products more effectively.

The principal competitive factors in our market include:

- product features, reliability, performance, and effectiveness;
- product line breadth, diversity, and applicability;
- product extensibility and ability to integrate with other technology infrastructures;
- price and total cost of ownership;
- adherence to industry standards and certifications;
- strength of sales and marketing efforts; and
- brand awareness and reputation.

We believe we generally compete favorably with our competitors on the basis of these factors as a result of the features and performance of our platform, the ease of integration of our products with technological infrastructures, and the relatively low total cost of ownership of our products. However, many of our competitors have substantially greater financial, technical, and other resources, greater name recognition, larger sales and marketing budgets, broader distribution, more diversified product lines, and larger and more mature intellectual property portfolios.

Sales, Customer Support and Marketing

Customers. Our end-customers are predominantly medium to large enterprises, service providers, and government entities. Our end-customers operate in a variety of industries, including education, energy, financial services, government entities, healthcare, Internet and media, manufacturing, public sector, and telecommunications. Our end-customers deploy our platform for a variety of security functions across a variety of deployment scenarios. Typical deployment scenarios include the enterprise perimeter, the enterprise data center, and the distributed enterprise perimeter. Our end-customer deployments typically involve at least one pair of our products along with one or more of our subscriptions, depending on size, security needs and requirements, and network complexity. As of July 31, 2017, we had more than 42,500 end-customers worldwide. No single end-customer accounted for more than 10% of our total revenue in fiscal 2017, 2016, or 2015.

Distribution. We primarily sell our products and subscription and support offerings to end-customers through our channel partners utilizing a two-tier, indirect fulfillment model whereby we sell our products and subscription and support offerings to our distributors, which, in turn, sell to our resellers, which then sell to our end-customers. Sales are subject to our standard, non-exclusive distributor agreement, which provides for an initial term of one year, one-year renewal terms, termination by us with 30-90 days written notice prior to the renewal date, and payment to us from the channel partner within 30-45 calendar days of the date we issue an invoice for such sales. For fiscal 2017, 65.7% of our total revenue was derived from sales to three distributors.

We also sell our VM-Series virtual firewalls directly to end-customers through Amazon's AWS Marketplace and Microsoft's Azure Marketplace under a usage-based licensing model.

Sales. Our sales organization is responsible for large-account acquisition and overall market development, which includes the management of the relationships with our channel partners, working with our channel partners in winning and supporting end-customers through a direct-touch approach, and acting as the liaison between our end-customers and our marketing and product development organizations. We expect to continue to grow our sales headcount in all of our principal markets and expand our presence into countries where we currently do not have a direct sales presence.

Our sales organization is supported by sales engineers with responsibility for pre-sales technical support, solutions engineering for our end-customers, and technical training for our channel partners.

Channel Program. Our NextWave Channel Partner program is focused on building in-depth relationships with solutions-oriented distributors and resellers that have strong security expertise. The program rewards these partners based on a number of attainment goals, as well as provides them access to marketing funds, technical and sales training, and support. To ensure optimal productivity, we operate a formal accreditation program for our channel partners' sales and technical professionals. As of July 31, 2017, we had more than 4,400 channel partners.

Customer Support. Our customer support organization is responsible for delivering support, professional, and educational services directly to our channel partners and to end-customers. We leverage the capabilities of our channel partners and train them in the delivery of support, professional, and educational services to ensure these services are locally delivered. We believe that a broad range of support services is essential to the successful customer deployment and ongoing support of our products, and we have hired support engineers with proven experience to provide those services.

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Marketing. Our marketing is focused on building our brand reputation and the market awareness of our platform and driving pipeline and end-customer demand. Our marketing team consists primarily of product marketing, programs marketing, field marketing, channel marketing, and public relations functions. Marketing activities include pipeline development through demand generation, social media and advertising programs, managing the corporate web site and partner portal, trade shows and conferences, press, analyst, and customer relations, and customer awareness. Every year we organize our end-customer conference “Ignite.” We also publish major market research papers such as the “Application Usage and Threat Report,” which are based on the application and cyberthreat landscape of our end-customers. These activities and tools benefit both our direct and indirect channels and are available at no cost to our channel partners.

Backlog. Orders for subscription and support offerings for multiple years are generally billed upfront shortly after fulfillment of an order and are included in deferred revenue. Timing of revenue recognition for subscription and support offerings may vary depending on the contractual period or when the subscription and support offerings are rendered. Products are shipped and billed shortly after receipt of an order. The majority of our product revenue comes from orders that are received and shipped in the same quarter. As such, we do not believe that our product backlog at any particular time is meaningful and it is not necessarily indicative of our future operating results.

Seasonality. Our business is affected by seasonal fluctuations in customer spending patterns. We have begun to see seasonal patterns in our business, which we expect to become more pronounced as we continue to grow, with our strongest sequential revenue growth occurring in our fiscal second and fourth quarters.

Manufacturing

We outsource the manufacturing of our security products to various manufacturing partners, which include our electronics manufacturing services provider (“EMS provider”) and original design manufacturers. This approach allows us to reduce our costs as it reduces our manufacturing overhead and inventory and also allows us to adjust more quickly to changing end-customer demand. Our EMS provider is Flextronics International, Ltd. (“Flex”), who assembles our products using design specifications, quality assurance programs, and standards that we establish, and procures components and assembles our products based on our demand forecasts. These forecasts represent our estimates of future demand for our products based upon historical trends and analysis from our sales and product management functions as adjusted for overall market conditions.

The component parts within our products are either sourced by our manufacturing partners or by various component suppliers. We do not have any long-term manufacturing contracts that guarantee us any fixed capacity or pricing, which could increase our exposure to supply shortages or price fluctuations related to raw materials.

Employees

As of July 31, 2017, we had 4,562 employees. Competition for qualified personnel in our industry is intense, and we believe that our future success depends in part on our continued ability to hire, motivate, and retain such personnel.

Segment and Geographic Information

We are organized and operate in a single reportable segment, with 70.2% of our total revenue in fiscal 2017 from the Americas, 18.2% from Europe, the Middle East, and Africa (“EMEA”), and 11.6% from Asia Pacific and Japan (“APAC”). Refer to Note 16. Segment Information of Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information about segments and revenue and assets by geographic region.

Available Information

Our website is located at www.paloaltonetworks.com, and our investor relations website is located at investors.paloaltonetworks.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), are available free of charge on the Investors portion of our web site as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (“SEC”). We also provide a link to the section of the SEC’s website at www.sec.gov that has all of our public filings, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, all amendments to those reports, our Proxy Statements, and other ownership related filings. Further, a copy of this Annual Report on Form 10-K is located at the SEC’s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330.

We also use our investor relations website as a channel of distribution for important company information. For example, webcasts of our earnings calls and certain events we participate in or host with members of the investment community are on our investor relations website. Additionally, we announce investor information, including news and commentary about our business and financial performance, SEC filings, notices of investor events, and our press and earnings releases, on our investor relations

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website. Investors and others can receive notifications of new information posted on our investor relations website in real time by signing up for email alerts and RSS feeds. Further corporate governance information, including our corporate governance guidelines, board committee charters, and code of conduct, is also available on our investor relations website under the heading "Governance." The contents of our websites are not incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

ITEM 1A. RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties including those described below. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, also may become important factors that affect us. If any of the following risks or others not specified below materialize, our business, financial condition, and operating results could be materially adversely affected and the market price of our common stock could decline.

Risks Related to Our Business and Our Industry

Our business and operations have experienced rapid growth in recent periods, and if we do not effectively manage any future growth or are unable to improve our systems, processes, and controls, our operating results could be adversely affected.

We have experienced rapid growth and increased demand for our products and subscriptions over the last few years. As a result, our employee headcount and number of end-customers have increased significantly, and we expect both to continue to grow over the next year. For example, from the end of fiscal 2016 to the end of fiscal 2017, our headcount increased from 3,795 to 4,562 employees, and our number of end-customers increased from approximately 34,000 to more than 42,500. In addition, as we have grown, we have increasingly managed more complex deployments of our products and subscriptions with larger end-customers. The growth and expansion of our business and product, subscription, and support offerings places a significant strain on our management, operational, and financial resources. To manage any future growth effectively, we must continue to improve and expand our information technology and financial infrastructure, our operating and administrative systems, and our ability to manage headcount, capital, and processes in an efficient manner.

We may not be able to successfully implement or scale improvements to our systems, processes, and controls in an efficient or timely manner. In addition, our existing systems, processes, and controls may not prevent or detect all errors, omissions, or fraud. We may also experience difficulties in managing improvements to our systems, processes, and controls or in connection with third-party software licensed to help us with such improvements. Any future growth would add complexity to our organization and require effective coordination throughout our organization. Failure to manage any future growth effectively could result in increased costs, disrupt our existing end-customer relationships, reduce demand for or limit us to smaller deployments of our platform, or harm our business performance and operating results.

Our operating results may vary significantly from period to period and be unpredictable, which could cause the market price of our common stock to decline.

Our operating results, in particular, our revenues, gross margins, operating margins, and operating expenses, have historically varied from period to period, and even though we have experienced growth, we expect variation to continue as a result of a number of factors, many of which are outside of our control and may be difficult to predict, including:

- our ability to attract and retain new end-customers or sell additional products and subscriptions to our existing end-customers;
- the budgeting cycles, seasonal buying patterns, and purchasing practices of end-customers;
- changes in end-customer, distributor or reseller requirements, or market needs;
- price competition;
- the timing and success of new product and service introductions by us or our competitors or any other change in the competitive landscape of our industry, including consolidation among our competitors or end-customers and strategic partnerships entered into by and between our competitors;
- changes in the mix of our products, subscriptions, and support, including changes in multi-year subscriptions and support;
- our ability to successfully and continuously expand our business domestically and internationally;
- changes in the growth rate of the enterprise security market;

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- deferral of orders from end-customers in anticipation of new products or product enhancements announced by us or our competitors;
- the timing and costs related to the development or acquisition of technologies or businesses or strategic partnerships;
- lack of synergy or the inability to realize expected synergies, resulting from acquisitions or strategic partnerships;
- our inability to execute, complete or integrate efficiently any acquisitions that we may undertake;
- increased expenses, unforeseen liabilities, or write-downs and any impact on our operating results from any acquisitions we consummate;
- our ability to increase the size and productivity of our distribution channel;
- decisions by potential end-customers to purchase security solutions from larger, more established security vendors or from their primary network equipment vendors;
- changes in end-customer penetration, attach, and renewal rates for our subscriptions;
- timing of revenue recognition and revenue deferrals;
- our ability to manage production and manufacturing related costs, global customer service organization costs, inventory excess and obsolescence costs, and warranty costs;
- insolvency or credit difficulties confronting our end-customers, which could adversely affect their ability to purchase or pay for our products and subscription and support offerings, or confronting our key suppliers, including our sole source suppliers, which could disrupt our supply chain;
- any disruption in our channel or termination of our relationships with important channel partners, including as a result of consolidation among distributors and resellers of security solutions;
- our inability to fulfill our end-customers' orders due to supply chain delays or events that impact our manufacturers or their suppliers;
- the cost and potential outcomes of litigation, which could have a material adverse effect on our business;
- seasonality or cyclical fluctuations in our markets;
- future accounting pronouncements or changes in our accounting policies, including the potential impact of the adoption and implementation of the Financial Accounting Standards Board's new standard regarding revenue recognition;
- increases or decreases in our expenses or fluctuations in our sales cycle caused by fluctuations in foreign currency exchange rates, as an increasing amount of our expenses is incurred and paid in currencies other than the U.S. dollar;
- political, economic and social instability, such as those caused by the upcoming elections in Europe, the recent referendum in which voters in the United Kingdom (the "U.K.") approved an exit from the European Union (the "E.U."), continued hostilities in the Middle East, terrorist activities, and any disruption these events may cause to the broader global industrial economy; and
- general macroeconomic conditions, both domestically and in our foreign markets that could impact some or all regions where we operate.

Any one of the factors above, or the cumulative effect of some of the factors referred to above, may result in significant fluctuations in our financial and other operating results. This variability and unpredictability could result in our failure to meet our revenue, margin, or other operating result expectations or those of securities analysts or investors for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our common stock could fall substantially, and we could face costly lawsuits, including securities class action suits.

Uncertain or weakened global economic conditions could have an adverse effect on our business and operating results.

We operate globally and as a result our business and revenues are impacted by global macroeconomic conditions. The global macroeconomic environment has been and may continue to be inconsistent and challenging due to instability in the global credit markets, the current economic challenges in China, falling demand for oil and other commodities, uncertainties regarding the effects of the "Brexit" decision, uncertainties related to changes in public policies such as domestic and international regulations, taxes, or international trade agreements, geopolitical turmoil and other disruptions to global and regional economies and markets. As a result, any continued or further uncertainty, weakness or deterioration in global macroeconomic and market conditions may cause our end-customers to modify spending priorities or delay purchasing decisions, and result in lengthened sales cycles, all of which could harm our business and operating results.

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

We have experienced revenue growth rates of 27.8% and 48.5% in fiscal 2017 and fiscal 2016, respectively. Our revenue for any prior quarterly or annual period should not be relied upon as an indication of our future revenue or revenue growth for any future period. If we are unable to maintain consistent revenue or revenue growth, the market price of our common stock could be volatile, and it may be difficult for us to achieve and maintain profitability or maintain or increase cash flow on a consistent basis.

We have a history of losses, anticipate increasing our operating expenses in the future, and may not be able to achieve or maintain profitability or maintain or increase cash flow on a consistent basis, which could cause our business, financial condition, and operating results to suffer.

Other than fiscal 2012, we have incurred losses in all fiscal years since our inception. As a result, we had an accumulated deficit of \$836.7 million at July 31, 2017. We anticipate that our operating expenses will continue to increase in the foreseeable future as we continue to grow our business. Our growth efforts may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenues sufficiently, or at all, to offset increasing expenses. Revenue growth may slow or revenue may decline for a number of possible reasons, including slowing demand for our products or subscriptions, increasing competition, a decrease in the growth of our overall market, or a failure to capitalize on growth opportunities. Any failure to increase our revenue as we grow our business could prevent us from achieving or maintaining profitability or maintaining or increasing cash flow on a consistent basis. In addition, we may have difficulty achieving profitability under U.S. generally accepted accounting principles (“GAAP”) due to share-based compensation expense and other non-cash charges. If we are unable to navigate these challenges as we encounter them, our business, financial condition, and operating results may suffer.

If we are unable to sell additional product, subscription, and support offerings to our end-customers, our future revenue and operating results will be harmed.

Our future success depends, in part, on our ability to expand the deployment of our platform with existing end-customers. This may require increasingly sophisticated and costly sales efforts that may not result in additional sales. The rate at which our end-customers purchase additional products, subscriptions, and support depends on a number of factors, including the perceived need for additional security products, including subscription and support offerings, as well as general economic conditions. Further, existing end-customers have no contractual obligation to and may not renew their subscription and support contracts after the completion of their initial contract period. Our end-customers’ renewal rates may decline or fluctuate as a result of a number of factors, including their satisfaction with our subscriptions and our support offerings, the frequency and severity of subscription outages, our product uptime or latency, and the pricing of our, or competing, subscriptions. Additionally, our end-customers may renew their subscription and support agreements for shorter contract lengths or on other terms that are less economically beneficial to us. We also cannot be certain that our end-customers will renew their subscription and support agreements. If our efforts to sell additional products and subscriptions to our end-customers are not successful or our end-customers do not renew their subscription and support agreements or renew on less favorable terms, our revenues may grow more slowly than expected or decline.

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 market for enterprise security products is intensely competitive, and we expect competition to increase in the future from established competitors and new market entrants. Our main competitors fall into three categories:

- large companies that incorporate security features in their products, such as Cisco and Juniper, or those that have acquired, or may acquire, large network and endpoint security vendors and have the technical and financial resources to bring competitive solutions to the market;
- independent security vendors, such as Symantec, Check Point, Fortinet, and FireEye, that offer a mix of network and endpoint security products; and
- small and large companies that offer point solutions and/or cloud security services that compete with some of the features present in our platform.

Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as:

- greater name recognition and longer operating histories;
- larger sales and marketing budgets and resources;
- broader distribution and established relationships with distribution partners and end-customers;
- greater customer support resources;

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- greater resources to make strategic acquisitions or enter into strategic partnerships;
- lower labor and development costs;
- larger and more mature intellectual property portfolios; and
- substantially greater financial, technical, and other resources.

In addition, some of our larger competitors have substantially broader and more diverse product and services offerings, which may make them less susceptible to downturns in a particular market and allow them to leverage their relationships based on other products or incorporate functionality into existing products to gain business in a manner that discourages users from purchasing our products and subscriptions, including through selling at zero or negative margins, offering concessions, product bundling, or closed technology platforms. Many of our smaller competitors that specialize in providing protection from a single type of security threat are often able to deliver these specialized security products to the market more quickly than we can.

Organizations that use legacy products and services may believe that these products and services are sufficient to meet their security needs or that our platform only serves the needs of a portion of the enterprise security market. Accordingly, these organizations may continue allocating their information technology budgets for legacy products and services and may not adopt our security platform. Further, many organizations have invested substantial personnel and financial resources to design and operate their networks and have established deep relationships with other providers of networking and security products. As a result, these organizations may prefer to purchase from their existing suppliers rather than add or switch to a new supplier such as us regardless of product performance, features, or greater services offerings or may be more willing to incrementally add solutions to their existing security infrastructure from existing suppliers than to replace it wholesale with our solutions.

Conditions in our market could change rapidly and significantly as a result of technological advancements, partnering or acquisitions by our competitors, or continuing market consolidation. New start-up companies that innovate and large competitors that are making significant investments in research and development may invent similar or superior products and technologies that compete with our products and subscriptions. Some of our competitors have made or could make acquisitions of businesses that may allow them to offer more directly competitive and comprehensive solutions than they had previously offered and adapt more quickly to new technologies and end-customer needs. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources.

These competitive pressures in our market or our failure to compete effectively may result in price reductions, fewer orders, reduced revenue and gross margins, and loss of market share. Any failure to meet and address these factors could seriously harm our business and operating results.

A network or data security incident may allow unauthorized access to our network or data, harm our reputation, create additional liability and adversely impact our financial results.

Increasingly, companies are subject to a wide variety of attacks on their networks on an ongoing basis. In addition to traditional computer “hackers,” malicious code (such as viruses and worms), phishing attempts, employee theft or misuse, and denial of service attacks, sophisticated nation-state and nation-state supported actors now engage in intrusions and attacks (including advanced persistent threat intrusions) and add to the risks to our internal networks and the information they store and process. Despite significant efforts to create security barriers to such threats, it is virtually impossible for us to entirely mitigate these risks. Furthermore, as a well-known provider of security solutions, we may be a more attractive target for such attacks. A breach in our data security could compromise our networks or networks secured by our products and subscriptions, creating system disruptions or slowdowns and exploiting security vulnerabilities of our products, and the information stored on our networks could be accessed, publicly disclosed, altered, lost, or stolen, which could subject us to liability and cause us financial harm. Although we have not yet experienced significant damages from unauthorized access by a third party of our internal network, any actual or perceived breach of network security in our internal systems could result in damage to our reputation, negative publicity, loss of channel partners, end-customers and sales, loss of competitive advantages over our competitors, increased costs to remedy any problems, and costly litigation. Any of these negative outcomes could adversely impact the market perception of our products and subscriptions and investor confidence in our company and could seriously harm our business or operating results.

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 channel partners to meet or exceed their sales objectives, we have historically received a substantial portion of sales orders and generated a substantial portion of revenue during the last few weeks of each fiscal quarter. If expected revenue at the end of any fiscal quarter is delayed for any reason, including the failure of anticipated purchase orders to materialize (particularly for large enterprise end-customers with lengthy sales cycles), our logistics partners’ inability to ship products prior to fiscal quarter-end to fulfill purchase orders received near the end of the fiscal quarter, our failure to manage inventory to meet demand, any failure of our systems related to order review and processing, or any delays in shipments based on trade compliance requirements (including new compliance requirements imposed

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by new or renegotiated trade agreements), revenue could fall below our expectations and the estimates of analysts for that quarter, which could adversely impact our business and operating results and cause a decline in the market price of our common stock.

Seasonality may cause fluctuations in our revenue.

We believe there are significant seasonal factors that may cause our second and fourth fiscal quarters to record greater revenue sequentially than our first and third fiscal quarters. We believe that this seasonality results from a number of factors, including:

- end-customers with a December 31 fiscal year-end choosing to spend remaining unused portions of their discretionary budgets before their fiscal year-end, which potentially results in a positive impact on our revenue in our second fiscal quarter;
- our sales compensation plans, which are typically structured around annual quotas and commission rate accelerators, which potentially results in a positive impact on our revenue in our fourth fiscal quarter;
- seasonal reductions in business activity during August in the United States, Europe and certain regions, which potentially results in a negative impact on our first fiscal quarter revenue; and
- the timing of end-customer budget planning at the beginning of the calendar year, which can result in a delay in spending at the beginning of the calendar year potentially resulting in a negative impact on our revenue in our third fiscal quarter.

As we continue to grow, seasonal or cyclical variations in our operations may become more pronounced, and our business, operating results and financial position may be adversely affected.

If we are unable to hire, integrate, train, retain, and motivate qualified personnel and senior management, our business could suffer.

Our future success depends, in part, on our ability to continue to attract, integrate, train, and retain qualified and highly skilled personnel. We are substantially dependent on the continued service of our existing engineering personnel because of the complexity of our platform. Additionally, any failure to hire, train, and adequately incentivize our sales personnel or the inability of our recently hired sales personnel to effectively ramp to target productivity levels could negatively impact our growth and operating margins. Competition for highly skilled personnel, particularly in engineering, is often intense, especially in the San Francisco Bay Area, where we have a substantial presence and need for such personnel. Additionally, potential changes in U.S. immigration policy may make it difficult to renew or obtain visas for any highly skilled personnel that we have hired or are actively recruiting.

In addition, the industry in which we operate generally experiences high employee attrition. Although we have entered into employment offer letters with our key personnel, these agreements have no specific duration and constitute at-will employment. We do not maintain key person life insurance policies on any of our employees. The loss of one or more of our key employees could seriously harm our business. If we are unable to attract, integrate, train, or retain the qualified and highly skilled personnel required to fulfill our current or future needs, our business, financial condition, and operating results could be harmed.

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. The loss of services of senior management or the ineffective management of any leadership transitions, especially within our sales organization, could significantly delay or prevent the achievement of our development and strategic objectives, which could adversely affect our business, financial condition, and operating results. Additionally, our chief financial officer recently advised us of his intent to retire from his position and if we are unable to timely attract, identify, hire and integrate a successor, our business and operating results could be harmed.

Further, we believe that a critical contributor to our success and our ability to retain highly skilled personnel has been our corporate culture, which we believe fosters innovation, teamwork, passion for end-customers, focus on execution, and the facilitation of critical knowledge transfer and knowledge sharing. As we grow and change, we may find it difficult to maintain these important aspects of our corporate culture. Any failure to preserve our culture as we grow could limit our ability to innovate and could negatively affect our ability to retain and recruit personnel, continue to perform at current levels or execute on our business strategy.

If we are not successful in executing our strategy to increase sales of our products and subscriptions to new and existing medium and large enterprise end-customers, our operating results may suffer.

Our growth strategy is dependent, in part, upon increasing sales of our products to new and existing medium and large enterprise end-customers. Sales to these end-customers involve risks that may not be present, or that are present to a lesser extent, with sales to smaller entities. These risks include:

- competition from larger competitors, such as Cisco, Check Point, and Juniper, that traditionally target larger enterprises, service providers, and government entities and that may have pre-existing relationships or purchase commitments from those end-customers;
- increased purchasing power and leverage held by large end-customers in negotiating contractual arrangements with us;
- more stringent requirements in our worldwide support contracts, including stricter support response times and penalties for any failure to meet support requirements; and
- longer sales cycles, in some cases over 12 months, and the associated risk that substantial time and resources may be spent on a potential end-customer that elects not to purchase our products and subscriptions.

At the beginning of fiscal 2017, we experienced execution challenges with respect to certain elements of our go-to-market strategy. While we have and will continue to implement changes to our go-to-market strategy that are designed to address these challenges, such changes may be difficult to implement and result in further disruptions to our sales organization or, once implemented, fail to resolve these challenges, which could impact our results of operations. In addition, product purchases by large enterprises are frequently subject to budget constraints, multiple approvals, and unplanned administrative, processing, and other delays. Finally, large enterprises typically have longer implementation cycles, require greater product functionality and scalability and a broader range of services, demand that vendors take on a larger share of risks, sometimes require acceptance provisions that can lead to a delay in revenue recognition, and expect greater payment flexibility from vendors. All of these factors can add further risk to business conducted with these end-customers. If we fail to realize an expected sale from a large end-customer in a particular quarter or at all, our business, operating results, and financial condition could be materially and adversely affected.

We rely on revenue from subscription and support offerings, and because we recognize revenue from subscription and support over the term of the relevant service period, downturns or upturns in sales of these subscription and support offerings are not immediately reflected in full in our operating results.

Subscription and support revenue accounts for a significant portion of our revenue, comprising 59.7% of total revenue in fiscal 2017, 51.3% of total revenue in fiscal 2016, and 46.9% of total revenue in fiscal 2015. Sales of new or renewal subscription and support contracts may decline and fluctuate as a result of a number of factors, including end-customers' level of satisfaction with our products and subscriptions, the prices of our products and subscriptions, the prices of products and services offered by our competitors, and reductions in our end-customers' spending levels. If our sales of new or renewal subscription and support contracts decline, our total revenue and revenue growth rate may decline and our business will suffer. In addition, we recognize subscription and support revenue monthly over the term of the relevant service period, which is typically one to five years. As a result, much of the subscription and support revenue we report each fiscal quarter is the recognition of deferred revenue from subscription and support contracts entered into during previous fiscal quarters. Consequently, a decline in new or renewed subscription or support contracts in any one fiscal quarter will not be fully or immediately reflected in revenue in that fiscal quarter but will negatively affect our revenue in future fiscal quarters. Also, it is difficult for us to rapidly increase our subscription and support revenue through additional subscription and support sales in any period, as revenue from new and renewal subscription and support contracts must be recognized over the applicable service period.

Defects, errors, or vulnerabilities in our products, subscriptions, or support offerings, the failure of our products or subscriptions to block a virus or prevent a security breach, misuse of our products, or risks of product liability claims could harm our reputation and adversely impact our operating results.

Because our products and subscriptions 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 end-customers. For example, from time to time, certain of our end-customers have reported defects in our products related to performance, scalability, and compatibility. Additionally, defects may cause our products or subscriptions to be vulnerable to security attacks, cause them to fail to help secure networks, or temporarily interrupt end-customers' networking traffic. Because the techniques used by computer hackers to access or sabotage networks change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques and provide a solution in time to protect our end-customers' networks. Furthermore, as a well-known provider of security solutions, our networks, products, including cloud-based technology, and subscriptions could be targeted by attacks specifically designed to disrupt our business and harm our reputation. In addition, defects or errors in our subscription updates or our products could result in a failure of our subscriptions to effectively update end-customers' hardware and cloud-based products. Our data centers and networks may experience technical failures and downtime, may fail to distribute appropriate

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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 the latest security threats. Moreover, our products must interoperate with our end-customers' existing infrastructure, which often have different specifications, utilize multiple protocol standards, deploy products from multiple vendors, and contain multiple generations of products that have been added over time. As a result, when problems occur in a network, it may be difficult to identify the sources of these problems.

The occurrence of any such problem in our products and subscriptions, whether real or perceived, could result in:

- expenditure of significant financial and product development resources in efforts to analyze, correct, eliminate, or work-around errors or defects or to address and eliminate vulnerabilities;
- loss of existing or potential end-customers or channel partners;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- 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 margins; and
- litigation, regulatory inquiries, or investigations that may be costly and harm our reputation.

Further, our products and subscriptions may be misused by end-customers or third parties that obtain access to our products and subscriptions. For example, our products and subscriptions could be used to censor private access to certain information on the Internet. Such use of our products and subscriptions for censorship could result in negative press coverage and negatively affect our reputation.

The limitation of liability provisions in our standard terms and conditions of sale may not fully or effectively protect us from claims as a result of federal, state, or local laws or ordinances, or unfavorable judicial decisions in the United States or other countries. The sale and support of our products and subscriptions also entails the risk of product liability claims. Although we may be indemnified by our third-party manufacturers for product liability claims arising out of manufacturing defects, because we control the design of our products and subscriptions, we may not be indemnified for product liability claims arising out of design defects. We maintain insurance to protect against certain claims associated with the use of our products and subscriptions, but our insurance coverage may not adequately cover any claim asserted against us. In addition, even claims that ultimately are unsuccessful could result in our expenditure of funds in litigation, divert management's time and other resources, and harm our reputation.

False detection of applications, viruses, spyware, vulnerability exploits, data patterns, or URL categories could adversely affect our business.

Our classifications of application type, virus, spyware, vulnerability exploits, data, or URL categories may falsely detect applications, content, or threats that do not actually exist. This risk is heightened by the inclusion of a "heuristics" feature in our products and subscriptions, which attempts to identify applications and other threats not based on any known signatures but based on characteristics or anomalies which indicate that a particular item may be a threat. These false positives may impair the perceived reliability of our products and subscriptions and may therefore adversely impact market acceptance of our products and subscriptions. If our products and subscriptions restrict important files or applications based on falsely identifying them as malware or some other item that should be restricted, this could adversely affect end-customers' systems and cause material system failures. Any such false identification of important files or applications could result in damage to our reputation, negative publicity, loss of channel partners, end-customers and sales, increased costs to remedy any problem, and costly litigation.

We rely on our channel partners to sell substantially all of our products, including subscriptions and support, and if these channel partners fail to perform, our ability to sell and distribute our products and subscriptions will be limited, and our operating results will be harmed.

Substantially all of our revenue is generated by sales through our channel partners, including distributors and resellers. We provide our channel partners with specific training and programs to assist them in selling our products, including subscriptions and support offerings, but there can be no assurance that these steps will be utilized or effective. In addition, our channel partners may be unsuccessful in marketing, selling, and supporting our products and subscriptions. We may not be able to incentivize these channel partners to sell our products and subscriptions to end-customers and, in particular, to large enterprises. These channel partners may also have incentives to promote our competitors' products and may devote more resources to the marketing, sales, and support of competitive products. Our agreements with our channel partners may generally be terminated for any reason by either party with advance notice prior to each annual renewal date. We cannot be certain that we will retain these channel partners or that we will be able to secure additional or replacement channel partners. In addition, any new channel partner requires

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extensive training and may take several months or more to achieve productivity. Our channel partner sales structure could subject us to lawsuits, potential liability, and reputational harm if, for example, any of our channel partners misrepresent the functionality of our products or subscriptions to end-customers or violate laws or our corporate policies. If we fail to effectively manage our sales channels or channel partners, our ability to sell our products and subscriptions and operating results will be harmed.

If we do not accurately predict, prepare for, and respond promptly to the rapidly evolving technological and market developments and successfully manage product and subscription introductions and transitions to meet changing end-customer needs in the enterprise security market, our competitive position and prospects will be harmed.

The enterprise security market has grown quickly and is expected to continue to evolve rapidly. Moreover, many of our end-customers operate in markets characterized by rapidly changing technologies and business plans, which require them to add numerous network access points and adapt increasingly complex enterprise networks, incorporating a variety of hardware, software applications, operating systems, and networking protocols. If we fail to accurately predict end-customers' changing needs and emerging technological trends in the enterprise security industry, including in the areas of mobility, virtualization, cloud computing, and software defined networks ("SDN"), our business could be harmed. The technology in our platform is especially complex because it needs to effectively identify and respond to new and increasingly sophisticated methods of attack, while minimizing the impact on network performance. Additionally, some of our new platform features and related platform enhancements may require us to develop new hardware architectures that involve complex, expensive, and time-consuming research and development processes. The development of our platform is difficult and the timetable for commercial release and availability is uncertain as there can be long time periods between releases and availability of new platform features. If we experience unanticipated delays in the availability of new products, platform features, and subscriptions, and fail to meet customer expectations for such availability, our competitive position and business prospects will be harmed.

Additionally, we must commit significant resources to developing new platform features before knowing whether our investments will result in products, subscriptions, and platform features the market will accept. The success of new platform features depends on several factors, including appropriate new product definition, differentiation of new products, subscriptions, and platform features from those of our competitors, and market acceptance of these products, services and platform features. Moreover, successful new product introduction and transition depends on a number of factors including, our ability to manage the risks associated with new product production ramp-up issues, the availability of application software for new products, the effective management of purchase commitments and inventory, the availability of products in appropriate quantities and costs to meet anticipated demand, and the risk that new products may have quality or other defects or deficiencies in the early stages of introduction. There can be no assurance that we will successfully identify opportunities for new products and subscriptions, develop and bring new products and subscriptions to market in a timely manner, or achieve market acceptance of our products and subscriptions, or that products, subscriptions, and technologies developed by others will not render our products, subscriptions, or technologies obsolete or noncompetitive.

Our current research and development efforts may not produce successful products, subscriptions, or platform features that result in significant revenue, cost savings or other benefits in the near future, if at all.

Developing our products, subscriptions, platform features, and related enhancements is expensive. Our investments in research and development may not result in significant design improvements, marketable products, subscriptions, or platform features, or may result in products, subscriptions, or platform features that are more expensive than anticipated. Additionally, we may not achieve the cost savings or the anticipated performance improvements we expect, and we may take longer to generate revenue, or generate less revenue, than we anticipate. Our future plans include significant investments in research and development and related product and subscription opportunities. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. However, we may not receive significant revenue from these investments in the near future, if at all, or these investments may not yield the expected benefits, either of which could adversely affect our business and operating results.

Because we depend on manufacturing partners to build and ship our products, we are susceptible to manufacturing and logistics delays and pricing fluctuations that could prevent us from shipping customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales and end-customers.

We depend on manufacturing partners, primarily a subsidiary of Flex, our EMS provider, as sole source manufacturers for our product lines. Our reliance on these manufacturing partners reduces our control over the manufacturing process and exposes us to risks, including reduced control over quality assurance, product costs, product supply, timing and transportation risk. Our products are primarily manufactured by our manufacturing partners at facilities located in the United States. Over time, we intend to decrease the portion of our products that are manufactured outside the United States. The remaining portion of our products that are manufactured outside the United States may subject us to additional logistical risks or risks associated with complying with local rules and regulations in foreign countries. Significant changes to existing international trade agreements could lead to

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manufacturing or logistics disruption resulting from import delays or the imposition of increased tariffs on our manufacturing partners which could severely impair our ability to fulfill orders.

In addition, we are subject to requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”) to diligence, disclose, and report whether or not our products contain minerals originating from the Democratic Republic of the Congo and adjoining countries, or conflict minerals. Although the SEC has recently provided guidance with respect to a portion of the conflict minerals filing requirements that may somewhat reduce our reporting practices, we have incurred and expect to incur additional costs to comply with these disclosure requirements, including costs related to determining the source of any of the relevant minerals and metals used in our products. These requirements could adversely affect the sourcing, availability, and pricing of minerals used in the manufacture of semiconductor devices or other components used in our products. We may also encounter end-customers who require that all of the components of our products be certified as conflict free. If we are not able to meet this requirement, such end-customers may choose not to purchase our products.

Our manufacturing partners typically fulfill our supply requirements on the basis of individual orders. We do not have long-term contracts with these 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 and the prices we pay for manufacturing services could be increased on short notice. Our contract with Flex permits them to terminate the agreement for their convenience, subject to prior notice requirements. If we are required to change manufacturing partners, our ability to meet our scheduled product deliveries to our end-customers could be adversely affected, which could cause the loss of sales to existing or potential end-customers, delayed revenue or an increase in our costs which could adversely affect our gross margins. Any production interruptions for any reason, such as a natural disaster, epidemic, capacity shortages, or quality problems, at one of our manufacturing partners would negatively affect sales of our product lines manufactured by that manufacturing partner and adversely affect our business and operating results.

Managing the supply of our products and product components is complex. Insufficient supply and inventory may result in lost sales opportunities or delayed revenue, while excess inventory may harm our gross margins.

Our manufacturing partners procure components and build our products based on our forecasts, and we generally do not hold inventory for a prolonged period of time. These forecasts are based on estimates of future demand for our products, which are in turn based on historical trends and analyses from our sales and product management organizations, adjusted for overall market conditions. In order to reduce manufacturing lead times and plan for adequate component supply, from time to time we may issue forecasts for components and products that are non-cancelable and non-returnable.

Our inventory management systems and related supply chain visibility tools may be inadequate to enable us to forecast accurately and effectively manage supply of our products and product components. If we ultimately determine that we have excess supply, we may have to reduce our prices and write-down inventory, which in turn could result in lower gross margins. If our actual component usage and product demand are lower than the forecast we provide to our manufacturing partners, we accrue for losses on manufacturing commitments in excess of forecasted demand. Alternatively, insufficient supply levels may lead to shortages that result in delayed product revenue or loss of sales opportunities altogether as potential end-customers turn to competitors’ products that are readily available. If we are unable to effectively manage our supply and inventory, our operating results could be adversely affected.

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 rely on key components, including integrated circuit components, which our manufacturing partners purchase on our behalf from a limited number of component suppliers, including sole source providers. The manufacturing operations of some of our component suppliers are geographically concentrated in Asia and elsewhere, which makes our supply chain vulnerable to regional disruptions, such as natural disasters, fire, political instability, civil unrest, a power outage, or a localized health risk, and as a result could impair the volume of components that we are able to obtain.

Further, we do not have volume purchase contracts with any of our component suppliers, and they could cease selling to us at any time. If we are unable to obtain a sufficient quantity of these components in a timely manner for any reason, sales of our products could be delayed or halted or we could be forced to expedite shipment of such components or our products at dramatically increased costs. Our component suppliers also change their selling prices frequently in response to market trends, including industry-wide increases in demand, and because we do not have volume purchase contracts with these component suppliers, we are susceptible to price fluctuations related to raw materials and components and may not be able to adjust our prices accordingly. Additionally, poor quality in any of the sole-sourced components in our products could result in lost sales or sales opportunities.

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If we are unable to obtain a sufficient volume of the necessary components for our products on commercially reasonable terms or the quality of the components do not meet our requirements, we could also be forced to redesign our products and qualify new components from alternate component suppliers. The resulting stoppage or delay in selling our products and the expense of redesigning our products could result in lost sales opportunities and damage to customer relationships, which would adversely affect our business and operating results.

The sales prices of our products and subscriptions may decrease, which may reduce our gross profits and adversely impact our financial results.

The sales prices for our products and subscriptions may decline for a variety of reasons, including competitive pricing pressures, discounts, a change in our mix of products and subscriptions, anticipation of the introduction of new products or subscriptions, or promotional programs. Competition continues to increase in the market segments in which we participate, and we expect competition to further increase in the future, thereby leading to increased pricing pressures. Larger competitors with more diverse product and service offerings may reduce the price of products or subscriptions that compete with ours or may bundle them with other products and subscriptions. Additionally, although we price our products and subscriptions worldwide in U.S. dollars, currency fluctuations in certain countries and regions may negatively impact actual prices that channel partners and end-customers are willing to pay in those countries and regions. Furthermore, we anticipate that the sales prices and gross profits for our products will decrease over product life cycles. We cannot guarantee that we will be successful in developing and introducing new offerings with enhanced functionality on a timely basis, or that our product and subscription offerings, if introduced, will enable us to maintain our prices and gross profits at levels that will allow us to achieve and maintain profitability.

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 associated with international sales and operations.

We have a limited history of marketing, selling, and supporting our products and subscriptions internationally. We may experience difficulties in recruiting, training, managing, and retaining an international staff, and specifically staff related to sales management and sales personnel. We also may not be able to maintain successful strategic distributor relationships internationally or recruit additional companies to enter into strategic distributor relationships. 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 other than our standard terms related to payment, warranties, or performance obligations in end-customer contracts.

Additionally, our international sales and operations are subject to a number of risks, including the following:

- political, economic and social uncertainty around the world, macroeconomic challenges in Europe, terrorist activities, and continued hostilities in the Middle East;
- greater difficulty in enforcing contracts and accounts receivable collection and longer collection periods;
- the uncertainty of protection for intellectual property rights in some countries;
- greater risk of unexpected changes in foreign and domestic regulatory practices, tariffs, and tax laws and treaties, including regulatory and trade policy changes adopted by the new administration;
- 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 a failure of foreign employees, channel partners, distributors, and resellers to comply with both U.S. and foreign laws, including antitrust regulations, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, U.S. or foreign sanctions regimes and export or import control laws, and any trade regulations ensuring fair trade practices;
- heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- management communication and integration problems resulting from cultural and geographic dispersion; and
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business and related impact on sales cycles.

These and other factors could harm our ability to gain future international revenues and, consequently, materially impact our business, operating results, and financial condition. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources. Our failure to successfully manage our international operations and the associated risks effectively could limit the future growth of our business.

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Further, we are subject to risks associated with changes in economic and political conditions in countries in which we operate or sell our products and subscriptions. For instance, on June 23, 2016, the U.K. held a referendum in which voters approved an exit from the E.U., commonly referred to as “Brexit.” As a result of the referendum, it is expected that the British government will begin negotiating the terms of the U.K.’s withdrawal from the E.U. A withdrawal could, among other outcomes, disrupt the free movement of goods, services and people between the U.K. and the E.U., undermine bilateral cooperation in key policy areas and significantly disrupt trade between the U.K. and the E.U.; however, the full effects of Brexit are uncertain and will depend on any agreements the U.K. makes to retain access to E.U. markets either during a transitional period or more permanently. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which E.U. laws to replace or replicate. Given these possibilities and others we may not anticipate, as well as the lack of comparable precedent, the full extent to which our business, operating results and financial condition could be adversely affected by Brexit is uncertain.

The announcement of Brexit and the withdrawal of the U.K. from the E.U. may also create global economic uncertainty, which may cause our end-customers to closely monitor their costs and reduce their spending budgets. Any of these effects of Brexit, among others noted above, could adversely affect our business, financial condition, operating results and cash flows.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and operating results.

Our sales contracts are primarily denominated in U.S. dollars, and therefore, substantially all of our revenue is not subject to foreign currency risk. However, including as a result of concerns regarding the impact of Brexit, there has been, and may continue to be, significant volatility in global stock markets and foreign currency exchange rates that result in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. The strengthening of the U.S. dollar increases the real cost of our platform to our end-customers outside of the United States and may lead to delays in the purchase of our products, subscriptions, and support, and the lengthening of our sales cycle. If the U.S. dollar continues to strengthen, this could adversely affect our financial condition and operating results. In addition, increased international sales in the future, including through our channel partners and other partnerships, may result in greater foreign currency denominated sales, increasing our foreign currency risk.

Our operating expenses incurred outside the United States and denominated in foreign currencies are increasing and are subject to fluctuations due to changes in foreign currency exchange rates. If we are not able to successfully hedge against the risks associated with foreign currency fluctuations, our financial condition and operating results could be adversely affected. We have entered into forward contracts in an effort to reduce our foreign currency exchange exposure related to our foreign currency denominated expenditures. Refer to Note 4. Derivative Instruments in Part II, Item 8 of this Annual Report on Form 10-K for more information on our hedging transactions. The effectiveness of our existing hedging transactions and the availability and effectiveness of any hedging transactions we may decide to enter into in the future may be limited and we may not be able to successfully hedge our exposure, which could adversely affect our financial condition and operating results.

A small number of channel partners represent a large percentage of our revenue and gross accounts receivable. We are exposed to the credit and liquidity risk of some of our channel partners and to credit exposure in weakened markets, which could result in material losses.

For fiscal 2017, three distributors represented 65.7% of our total revenue, and as of July 31, 2017, four distributors represented 75.9% of our gross accounts receivable. Most of our sales to our channel partners are made on an open credit basis. Although we have programs in place that are designed to monitor and mitigate these risks, we cannot guarantee these programs will be effective in reducing our credit risks, especially as we expand our business internationally. If we are unable to adequately control these risks, our business, operating results, and financial condition could be harmed.

A portion of our revenue is generated by sales to government entities, which are subject to a number of challenges and risks.

Sales to government entities are subject to a number of risks. Selling to government entities 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. The substantial majority of our sales to date to government entities have been made indirectly through our channel partners. Government certification requirements for products and subscriptions like ours may change, thereby restricting our ability to sell into the federal government sector until we have attained the revised certification. If our products and subscriptions are late in achieving or fail to achieve compliance with these certifications and standards, or our competitors achieve compliance with these certifications and standards, we may be disqualified from selling our products and subscriptions to such governmental entity, or be at a competitive disadvantage, which would harm our business, operating results, and financial condition. Government demand and payment for our products and subscriptions may be impacted by public sector budgetary cycles, contracting requirements, and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our products and subscriptions. Government entities 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

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operating results. Governments routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government refusing to continue buying our products and subscriptions, a reduction of revenue, or fines or civil or criminal liability if the audit uncovers improper or illegal activities, which could adversely impact our operating results in a material way. Finally, for purchases by the U.S. government, the U.S. government may require certain products to be manufactured in the United States and other relatively high cost manufacturing locations, and we may not manufacture all products in locations that meet such requirements, affecting our ability to sell these products and subscriptions to the U.S. government.

Our ability to sell our products and subscriptions is dependent on the quality of our technical support services and those of our channel partners, and the failure to offer high-quality technical support services could have a material adverse effect on our end-customers' satisfaction with our products and subscriptions, our sales, and our operating results.

After our products and subscriptions are deployed within our end-customers' networks, our end-customers depend on our technical support services, as well as the support of our channel partners, to resolve any issues relating to our products. Our channel partners often provide similar technical support for third parties' products, and may therefore have fewer resources to dedicate to the support of our products and subscriptions. If we or our channel partners do not effectively assist our end-customers in deploying our products and subscriptions, succeed in helping our end-customers quickly resolve post-deployment issues, or provide effective ongoing support, our ability to sell additional products and subscriptions to existing end-customers would be adversely affected and our reputation with potential end-customers could be damaged. Many larger enterprise, service provider, and government entity end-customers have more complex networks and require higher levels of support than smaller end-customers. If we or our channel partners fail to meet the requirements of these larger end-customers, it may be more difficult to execute on our strategy to increase our coverage with larger end-customers. Additionally, if our channel partners do not effectively provide support to the satisfaction of our end-customers, we may be required to provide direct support to such end-customers, which would require us to hire additional personnel and to invest in additional resources. It can take several months to recruit, hire, and train qualified technical support employees. We may not be able to hire such resources fast enough to keep up with unexpected demand, particularly if the sales of our products exceed our internal forecasts. As a result, our ability, and the ability of our channel partners to provide adequate and timely support to our end-customers will be negatively impacted, and our end-customers' satisfaction with our products and subscriptions will be adversely affected. Additionally, to the extent that we may need to rely on our sales engineers to provide post-sales support while we are ramping our support resources, our sales productivity will be negatively impacted, which would harm our revenues. Our or our channel partners' failure to provide and maintain high-quality support services could have a material adverse effect on our business, financial condition, and operating results.

We may acquire other businesses, which could require significant management attention, disrupt our business, dilute stockholder value, and adversely affect our operating results.

As part of our business strategy, we may acquire or make investments in complementary companies, products, or technologies. For example, in April 2014, we acquired Cyvera Ltd. ("Cyvera"), in May 2015, we acquired CirroSecure, Inc. ("CirroSecure"), and in February 2017 we acquired LightCyber. Our ability as an organization to acquire and integrate other companies, products, or technologies in a successful and timely manner is still relatively unproven. The identification of suitable acquisition candidates is difficult, and we may not be able to complete such acquisitions on favorable terms, if at all. If we do complete future acquisitions, we may not ultimately strengthen our competitive position or achieve our goals and business strategy, we may be subject to claims or liabilities assumed from an acquired company, product, or technology, and any acquisitions we complete could be viewed negatively by our end-customers, investors, and securities analysts. In addition, if we are unsuccessful at integrating past or future acquisitions, or the technologies associated with such acquisitions, into our company, the revenue and operating results of the combined company could be adversely affected. Any integration process may require significant time and resources, which may disrupt our ongoing business and divert management's attention, and we may not be able to manage the integration process successfully. We may not successfully evaluate or utilize the acquired technology or personnel, realize anticipated synergies from the acquisition, or accurately forecast the financial impact of an acquisition transaction and integration of such acquisition, including accounting charges and any potential impairment of goodwill and intangible assets recognized in connection with such acquisitions. We may have to pay cash, incur debt, or issue equity or equity-linked securities to pay for any future acquisitions, each of which could adversely affect our financial condition or the market price of our common stock. Furthermore, the sale of equity or issuance of equity-linked debt to finance any future acquisitions could result in dilution to our stockholders. See the risk factors entitled "Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new products and subscriptions could reduce our ability to compete and could harm our business" and "The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans, the conversion of our Notes or exercise of the related warrants, or otherwise will dilute all other stockholders." The occurrence of any of these risks could harm our business, operating results, and financial condition.

Claims by others that we infringe their proprietary technology or other rights could harm our business.

Companies in the enterprise security industry own large numbers of patents, copyrights, trademarks, domain names, and trade secrets and frequently enter into litigation based on allegations of infringement, misappropriation, or other violations of intellectual property or other rights. Third parties have asserted and may in the future assert claims of infringement of intellectual property rights against us. For example, in December 2011, Juniper, one of our competitors, filed a lawsuit against us alleging patent infringement. In September 2013, we filed a lawsuit against Juniper alleging patent infringement. In May 2014, we entered into a Settlement, Release and Cross-License Agreement with Juniper to resolve all pending disputes between Juniper and us, including dismissal of all pending litigation.

Third parties may also assert such claims against our end-customers or channel partners, whom our standard license and other agreements obligate us to indemnify against claims that our products and subscriptions infringe the intellectual property rights of third parties. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited, that they have divulged proprietary or other confidential information, or that their former employers own their inventions or other work product. Furthermore, we may be unaware of the intellectual property rights of others that may cover some or all of our technology or products and subscriptions. As the number of products and competitors in our market increases and overlaps occur, infringement claims may increase. While we intend to increase the size of our patent portfolio, our competitors and others may now and in the future have significantly larger and more mature patent portfolios than we have. In addition, litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own patents may therefore provide little or no deterrence or protection. In addition, we have not registered our trademarks in all of our geographic markets and failure to secure those registrations could adversely affect our ability to enforce and defend our trademark rights. Any claim of infringement by a third party, even those without merit, could cause us to incur substantial costs defending against the claim, could distract our management from our business, and could require us to cease use of such intellectual property. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. A successful claimant could secure a judgment or we may agree to a settlement that prevents us from distributing certain products or performing certain services or that requires us to pay substantial damages, royalties, or other fees. Any of these events could seriously harm our business, financial condition, and operating results.

Our proprietary rights may be difficult to enforce or protect, which could enable others to copy or use aspects of our products or subscriptions without compensating us.

We rely and expect to continue to rely on a combination of confidentiality and license agreements with our employees, consultants, and third parties with whom we have relationships, as well as trademark, copyright, patent, and trade secret protection laws, to protect our proprietary rights. We have filed various applications for certain aspects of our intellectual property. Valid patents may not issue from our pending applications, and the claims eventually allowed on any patents may not be sufficiently broad to protect our technology or products and subscriptions. We cannot be certain that we were the first to make the inventions claimed in our pending patent applications or that we were the first to file for patent protection, which could prevent our patent applications from issuing as patents or invalidate our patents following issuance. Additionally, the process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Any issued patents may be challenged, invalidated or circumvented, and any rights granted under these patents may not actually provide adequate defensive protection or competitive advantages to us. Additional uncertainty may result from changes to patent-related laws and court rulings in the United States and other jurisdictions. As a result, we may not be able to obtain adequate patent protection or effectively enforce any issued patents.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or subscriptions or obtain and use information that we regard as proprietary. We generally enter into confidentiality or license agreements with our employees, consultants, vendors, and end-customers, and generally limit access to and distribution of our proprietary information. However, we cannot be certain that we have entered into such agreements with all parties who may have or have had access to our confidential information or that the agreements we have entered into will not be breached. We cannot guarantee that any of the measures we have taken will prevent misappropriation of our technology. Because we may be an attractive target for computer hackers, we may have a greater risk of unauthorized access to, and misappropriation of, our proprietary information. In addition, the laws of some foreign countries do not protect our proprietary rights to as great an extent as the laws of the United States, and many foreign countries do not enforce these laws as diligently as government agencies and private parties in the United States. From time to time, we may need to take legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results, and financial condition. Attempts to enforce our rights against third parties could also provoke these third parties to assert their own intellectual property or other rights against us, or result in a holding that invalidates or narrows the scope of our rights, in whole or in part. If we are unable to protect our proprietary rights (including aspects of our software and products protected other than by patent rights), we may find ourselves at a competitive disadvantage to

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others who need not incur the additional expense, time, and effort required to create the innovative products that have enabled us to be successful to date. Any of these events would have a material adverse effect on our business, financial condition, and operating results.

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

Our products and subscriptions contain software modules licensed to us by third-party authors under “open source” licenses. Some open source licenses contain requirements that we make available applicable source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar products or subscriptions with lower development effort and time and ultimately could result in a loss of product sales for us.

Although we monitor our use of open source software to avoid subjecting our products and subscriptions to conditions we do not intend, the terms of many open source licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products and subscriptions. From time to time, there have been claims against companies that distribute or use open source software in their products and subscriptions, asserting that open source software infringes the claimants’ intellectual property rights. We could be subject to suits by parties claiming infringement of intellectual property rights in what we believe to be licensed open source software. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our products and subscriptions on terms that are not economically feasible, to re-engineer our products and subscriptions, to discontinue the sale of our products and subscriptions if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, operating results, and financial condition.

In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or assurance of title or controls on origin of the software. In addition, many of the risks associated with usage of open source software, such as the lack of warranties or assurances of title, cannot be eliminated, and could, if not properly addressed, negatively affect our business. We have established processes to help alleviate these risks, including a review process for screening requests from our development organizations for the use of open source software, but we cannot be sure that our processes for controlling our use of open source software in our products and subscriptions will be effective.

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

We incorporate technology that we license from third parties, including software, into our products and subscriptions. We cannot be certain that our licensors are not infringing the intellectual property rights of third parties or that our licensors have sufficient rights to the licensed intellectual property in all jurisdictions in which we may sell our products and subscriptions. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. Some of our agreements with our licensors may be terminated for convenience by them. If we are unable to continue to license any of this technology because of intellectual property infringement claims brought by third parties against our licensors or against us, or if we are unable to continue our license agreements or enter into new licenses on commercially reasonable terms, our ability to develop and sell products and subscriptions containing such technology would be severely limited, and our business could be harmed. Additionally, if we are unable to license necessary technology from third parties, we may be forced to acquire or develop alternative technology, which we may be unable to do in a commercially feasible manner or at all, and we may be required to use alternative technology of lower quality or performance standards. This would limit and delay our ability to offer new or competitive products and subscriptions and increase our costs of production. As a result, our margins, market share, and operating results could be significantly harmed.

We face risks associated with having operations and employees located in Israel.

As a result of our acquisitions of Cyvera and LightCyber, we have offices and employees located in Israel. As a result, political, economic, and military conditions in Israel directly affect our operations. The future of peace efforts between Israel and its Arab neighbors remains uncertain. There has been a significant increase in hostilities and political unrest between Hamas and Israel in the past few years. The effects of these hostilities and violence on the Israeli economy and our operations in Israel are unclear, and we cannot predict the effect on us of further increases in these hostilities or future armed conflict, political instability or violence in the region. Current or future tensions and conflicts in the Middle East could adversely affect our business, operating results, financial condition and cash flows.

In addition, many of our employees in Israel are obligated to perform annual reserve duty in the Israeli military and are subject to being called for active duty under emergency circumstances. We cannot predict the full impact of these conditions on us

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in the future, particularly if emergency circumstances or an escalation in the political situation occurs. If many of our employees in Israel are called for active duty for a significant period of time, our operations and our business could be disrupted and may not be able to function at full capacity. Any disruption in our operations in Israel could adversely affect our business.

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

A wide variety of provincial, state, national, 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 as well as escalating levels of enforcement and sanctions. Further, the interpretation and application of foreign laws and regulations in many cases is uncertain, and our legal and regulatory obligations in foreign jurisdictions are subject to frequent and unexpected changes, including the potential for various regulatory or other governmental bodies to enact new or additional laws or regulations, to issue rulings that invalidate prior laws or regulations, or to increase penalties significantly. For example, the recently adopted E.U. General Data Protection Regulation, effective in May 2018, imposes more stringent data protection requirements, and provides for greater penalties for noncompliance. Our failure to comply with applicable laws and regulations, or to protect personal data, could result in enforcement action against us, including fines, imprisonment of company officials and public censure, claims for damages by end-customers and other affected individuals, damage to our reputation and loss of goodwill (both in relation to existing end-customers and prospective end-customers), 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 E.U., the United States, and elsewhere, especially relating to classification of IP addresses, machine identification, location 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. Even the perception of privacy concerns, whether or not valid, may harm our reputation and inhibit adoption of our products and subscriptions by current and future end-customers.

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

Because we incorporate encryption technology into our products, certain of our products are subject to U.S. export controls and may be exported outside the United States only with the required export license or through an export license exception. If we were to fail to comply with U.S. export licensing requirements, U.S. customs regulations, U.S. economic sanctions, or other laws, we could be subject to substantial civil and criminal penalties, including fines, incarceration for responsible employees and managers, and the possible loss of export or import privileges. Obtaining the necessary export license for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products to U.S. embargoed or sanctioned countries, governments, and persons. Even though we take precautions to ensure that our channel partners comply with all relevant regulations, any failure by our channel partners to comply with such regulations could have negative consequences for us, including reputational harm, government investigations, and penalties.

In addition, various countries regulate the import of certain encryption technology, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our products or could limit 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 into international markets, prevent our end-customers with international operations from deploying our products globally or, in some cases, prevent or delay the export or import of our products to certain countries, governments, or persons altogether. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential end-customers with international operations. Any decreased use of our products or limitation on our ability to export to or sell our products in international markets would likely adversely affect our business, financial condition, and operating results.

Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new products and subscriptions could reduce our ability to compete and could harm our business.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new features to enhance our platform, improve our operating infrastructure, or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional equity or equity-linked financing, our stockholders may experience significant dilution of their ownership interests and the market price of our common stock could decline. For example, in June 2014, we issued 0.0% Convertible Senior Notes due 2019 (the "Notes") and any conversion of some or all of the Notes into common stock will dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of the Notes. See the risk factor entitled "The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans, the

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conversion of our Notes, or otherwise will dilute all other stockholders.” Furthermore, if we engage in additional debt financing, the holders of our debt would have priority over the holders of our common stock, and we may be required to accept terms that restrict our ability to incur additional indebtedness. We may also be required to take other actions that would otherwise be in the interests of the debt holders and would require us to maintain specified liquidity or other ratios, any of which could harm our business, operating results, and financial condition. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be adversely affected.

We have a corporate structure aligned with the international nature of our business activities, and if we do not achieve increased tax benefits as a result of our corporate structure, our financial condition and operating results could be adversely affected.

We have reorganized our corporate structure and intercompany relationships to more closely align with the international nature of our business activities. This corporate structure may allow us to reduce our overall effective tax rate through changes in how we use our intellectual property, international procurement, and sales operations. This corporate structure may also allow us to obtain financial and operational efficiencies. These efforts require us to incur expenses in the near term for which we may not realize related benefits. If the structure is not accepted by the applicable tax authorities, if there are any changes in domestic and international tax laws that negatively impact the structure, including proposed and potential new legislation to reform U.S. taxation of international business activities, and recent guidance regarding base erosion and profit shifting (“BEPS”) provided by the Organisation for Economic Co-operation and Development, or if we do not operate our business consistent with the structure and applicable tax provisions, we may fail to achieve the reduction in our overall effective tax rate and the other financial and operational efficiencies that we anticipate as a result of the structure and our future financial condition and operating results may be negatively impacted.

We may have exposure to greater than anticipated tax liabilities.

Our income tax obligations are based in part on our corporate structure and intercompany arrangements, including the manner in which we develop, value, and use our intellectual property and the valuations of our intercompany transactions. The tax laws applicable to our business, including the laws of the United States and other jurisdictions, are subject to interpretation and certain jurisdictions may aggressively interpret their laws in an effort to raise additional tax revenue. The tax authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology or intercompany arrangements, which could increase our worldwide effective tax rate and harm our financial position and operating results. It is possible that tax authorities may disagree with certain positions we have taken and any adverse outcome of such a review or audit could have a negative effect on our financial position and operating results. Further, the determination of our worldwide provision for income taxes and other tax liabilities requires significant judgment by management, and there are transactions where the ultimate tax determination is uncertain. Although we believe that our estimates are reasonable, the ultimate tax outcome may differ from the amounts recorded in our consolidated financial statements and may materially affect our financial results in the period or periods for which such determination is made.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue, and expenses that are not readily apparent from other sources. For more information, refer to the section entitled “Critical Accounting Estimates” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of this Annual Report on Form 10-K. Additionally, as we work toward adopting and implementing the new revenue accounting standard, management will make judgments and assumptions based on our interpretation of the new standard. The new revenue standard is principle based and interpretation of those principles may vary from company to company based on their unique circumstances. It is possible that interpretation, industry practice, and guidance may evolve as we work toward implementing the new standard. If our assumptions change or if actual circumstances differ from our assumptions, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

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 agencies, 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 resulting from any alleged noncompliance, 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, litigation, and sanctions could harm our business, operating results, and financial condition.

If we fail to comply with environmental requirements, our business, financial condition, operating results, and reputation could be adversely affected.

We are subject to various environmental laws and regulations including laws governing the hazardous material content of our products and laws relating to the collection of and recycling of electrical and electronic equipment. Examples of these laws and regulations include the E.U. Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive ("RoHS") and the E.U. Waste Electrical and Electronic Equipment Directive ("WEEE Directive"), as well as the implementing legislation of the E.U. member states. Similar laws and regulations have been passed or are pending in China, South Korea, Norway, and Japan and may be enacted in other regions, including in the United States, and we are, or may in the future be, subject to these laws and regulations.

The E.U. RoHS and the similar laws of other jurisdictions limit the content of certain hazardous materials such as lead, mercury, and cadmium in the manufacture of electrical equipment, including our products. Our current products comply with the E.U. RoHS requirements. However, if there are changes to this or other laws (or their interpretation) or if new similar laws are passed in other jurisdictions, we may be required to reengineer our products to use components compatible with these regulations. This reengineering and component substitution could result in additional costs to us or disrupt our operations or logistics.

The WEEE Directive requires electronic goods producers to be responsible for the collection, recycling, and treatment of such products. Changes in interpretation of the directive may cause us to incur costs or have additional regulatory requirements to meet in the future in order to comply with this directive, or with any similar laws adopted in other jurisdictions.

We are also subject to environmental laws and regulations governing the management of hazardous materials, which we use in small quantities in our engineering labs. Our failure to comply with past, present, and future similar laws could result in reduced sales of our products, substantial product inventory write-offs, reputational damage, penalties, and other sanctions, any of which could harm our business and financial condition. We also expect that our products will be affected by new environmental laws and regulations on an ongoing basis. To date, our expenditures for environmental compliance have not had a material impact on our operating results or cash flows, and although we cannot predict the future impact of such laws or regulations, they will likely result in additional costs and may increase penalties associated with violations or require us to change the content of our products or how they are manufactured, which could have a material adverse effect on our business, operating results, and financial condition.

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 terrorism.

Both our corporate headquarters and the location where our products are manufactured are located in the San Francisco Bay Area, a region known for seismic activity. In addition, other natural disasters, such as fire or floods, a significant power outage, terrorism, or other geo-political unrest could affect our supply chain, manufacturers, logistics providers, channel partners, or end-customers or the economy as a whole and such disruption could impact our shipments and sales. These 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, the loss of customers, or the delay in the manufacture, deployment, or shipment of our products, our business, financial condition, and operating results would be adversely affected.

Risks Related to Our Notes

We may not have the ability to raise the funds necessary to settle conversions of the Notes or to repurchase the Notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the Notes.

Holders of the Notes will have the right to require us to repurchase all or a portion of their Notes upon the occurrence of a fundamental change at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and

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unpaid special interest, if any, to, but excluding, the fundamental change repurchase date. In addition, upon conversion of the Notes, we will be required to make cash payments for each \$1,000 in principal amount of Notes converted of at least the lesser of \$1,000 and the sum of the daily conversion values. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of Notes surrendered therefor or pay cash with respect to Notes being converted.

In addition, our ability to repurchase or to pay cash upon conversion of the Notes may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase the Notes at a time when the repurchase is required by the indenture governing the Notes or to pay cash upon conversion of the Notes as required by the indenture would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the payment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or to pay cash upon conversion of the Notes.

We may still incur substantially more debt or take other actions that would diminish our ability to make payments on the Notes when due.

We and our subsidiaries may be able to incur substantial additional debt in the future, subject to the restrictions contained in our debt instruments, some of which may be secured debt. We are not restricted under the terms of the indenture governing the Notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of the indenture governing the Notes that could have the effect of diminishing our ability to make payments on the Notes when due. While the terms of any future indebtedness we may incur could restrict our ability to incur additional indebtedness, any such restrictions will indirectly benefit holders of the Notes only to the extent any such indebtedness or credit facility is not repaid or does not mature while the Notes are outstanding.

Risks Related to Ownership of Our Common Stock

Our actual operating results may differ significantly from our guidance.

From time to time, we have released, and may continue to release, guidance in our quarterly earnings releases, quarterly earnings conference calls, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, has been and will be based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person expresses any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. The rapidly evolving market in which we operate may make it difficult to evaluate our current business and our future prospects, including our ability to plan for and model future growth. We intend to state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed. However, actual results will vary from our guidance and the variations may be material. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook as of the date of release with analysts and investors. We do not accept any responsibility for any projections or reports published by any such persons. Investors are urged not to rely upon our guidance in making an investment decision regarding our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "Risk Factors" section in this Annual Report on Form 10-K could result in our actual operating results being different from our guidance, and the differences may be adverse and material.

The market price of our common stock historically has been volatile and the value of your investment could decline.

The market price of our common stock has been volatile since our initial public offering ("IPO"). Since shares of our common stock were sold in our IPO in July 2012 at a price of \$42.00 per share, the reported high and low sales prices of our common stock has ranged from \$200.55 to \$39.08, through August 24, 2017. The market price of our common stock may fluctuate widely in response to various factors, some of which are beyond our control. These factors include:

- announcements of new products, subscriptions or technologies, commercial relationships, strategic partnerships, acquisitions or other events by us or our competitors;
- price and volume fluctuations in the overall stock market from time to time;

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- news announcements that affect investor perception of our industry, including reports related to the discovery of significant cyberattacks;
- 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 in our operating results or fluctuations in our operating results;
- whether our operating results meet the expectations of securities analysts or investors;
- actual or anticipated changes in the expectations of securities analysts or investors, whether as a result of our forward- looking statements, our failure to meet such expectation or otherwise;
- inaccurate or unfavorable research reports about our business and industry published by securities analysts or reduced coverage of our company by securities analysts;
- litigation involving us, our industry, or both;
- regulatory developments in the United States, foreign countries or both;
- major catastrophic events;
- sales of large blocks of our common stock or substantial future sales by our directors, executive officers, employees and significant stockholders;
- sales of our common stock by investors who view the Notes as a more attractive means of equity participation in us;
- hedging or arbitrage trading activity involving our common stock as a result of the existence of the Notes;
- departures of key personnel; or
- economic uncertainty around the world, in particular, macroeconomic challenges in Europe.

The market price of our common stock could decline for reasons unrelated to our business, operating results, or financial condition and as a result of events that 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. Securities litigation 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, operating results, and financial condition.

The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans, the conversion of our Notes or exercise of the related warrants, or otherwise will dilute all other stockholders.

Our amended and restated certificate of incorporation authorizes us to issue up to 1.0 billion shares of common stock and up to 100.0 million shares of preferred stock with such rights and preferences as may be determined by our board of directors. Subject to compliance with applicable rules and regulations, we may issue shares of common stock or securities convertible into shares of our common stock from time to time in connection with a financing, acquisition, investment, our stock incentive plans, the conversion of our Notes, the settlement of our warrants, or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and cause the market price of our common stock to decline.

We cannot guarantee that our recently announced share repurchase program will be fully consummated or that it will enhance shareholder value, and share repurchases could affect the price of our common stock.

On February 24, 2017, our board of directors authorized a \$500.0 million increase to our existing share repurchase program, bringing the total authorization to \$1.0 billion, funded from available working capital. This authorization is an increase to the existing \$500.0 million repurchase authorization previously approved by our board of directors in August 2016. Additionally, our board of directors extended the term of the repurchase authorization, which will now expire on December 31, 2018. Although our board of directors has authorized a share repurchase program, the share repurchase program does not obligate us to repurchase any specific dollar amount or to acquire any specific number of shares. The share repurchase program could affect the price of our common stock, increase volatility and diminish our cash reserves. In addition, it may be suspended or terminated at any time, which may result in a decrease in the price of our common stock.

We are subject to risks associated with our strategic investments. Other-than-temporary impairments in the value of our investments could negatively impact our financial results.

In June 2017, we announced our plans to form the \$20.0 million Palo Alto Networks Venture Fund. The fund is aimed at seed-, early-, and growth-stage security companies with a cloud-based application approach. We may not realize a return on our

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capital investments. Many such private companies generate net losses and the market for their products, services or technologies may be slow to develop, and, therefore, are dependent on the availability of later rounds of financing from banks or investors on favorable terms to continue their operations. The financial success of our investment in any company is typically dependent on a liquidity event, such as a public offering, acquisition or other favorable market event reflecting appreciation to the cost of our initial investment. The capital markets for public offerings and acquisitions are dynamic and the likelihood of liquidity events for the companies we have and intend to invest in could significantly change. Further, valuations of privately-held companies are inherently complex due to the lack of readily available market data and as such, the basis for these valuations is subject to the timing and accuracy of the data received from these companies. If we determine that any of our investments in such companies have experienced a decline in value, we may be required to record an other-than-temporary impairment, which could be material and negatively impact our financial results. All of our investments are subject to a risk of a partial or total loss of investment capital.

The convertible note hedge and warrant transactions may affect the value of our common stock.

In connection with the sale of the Notes, we entered into convertible note hedge transactions with certain counterparties. We also entered into warrant transactions with the counterparties pursuant to which we sold warrants for the purchase of our common stock. The convertible note hedge transactions are expected generally to reduce the potential dilution to our common stock upon any conversion of Notes and/or offset any cash payments we are required to make in excess of the principal amount of any converted Notes. The warrants could separately have a dilutive effect to the extent that the market price per share of our common stock exceeds the strike price of the warrants unless, subject to certain conditions, we elect to cash settle the warrants.

The counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes (and are likely to do so during any observation period related to a conversion of Notes). This activity could also cause or avoid an increase or a decrease in the market price of our common stock or the Notes, which could affect a Note holder's ability to convert the Notes and, to the extent the activity occurs during any observation period related to a conversion of Notes, it could affect the amount and value of the consideration that such Note holder will receive upon conversion of the Notes.

We do not make any representation or prediction as to the direction or magnitude of any potential effect that the transactions described above may have on the price of the Notes or our common stock. In addition, we do not make any representation that the counterparties or their respective affiliates will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

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

We have never declared or paid any dividends on our common stock. 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. As a result, you may only receive a return on your investment in our common stock if the market price of our common stock increases.

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

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of the New York Stock Exchange ("NYSE"), and other applicable securities rules and regulations. Compliance with these rules and regulations have increased our legal and financial compliance costs, made some activities more difficult, time-consuming or costly, and increased demand on our systems and resources. Among other things, the Exchange Act requires that we file annual, quarterly, and current reports with respect to our business and operating results. In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to meet the requirements of this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could harm our business and operating results. Although we have already hired additional employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

In addition, changing laws, regulations, and standards related to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time-consuming. These laws, regulations, and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations, and standards, and this investment may result in increased general and administrative expense and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations,

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and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We also expect that being a public company and these new rules and regulations will make it more expensive for us to obtain and maintain director and officer liability insurance, and in the future, we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our Audit Committee and Compensation Committee, and qualified executive officers.

We are obligated to maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or this internal control may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

While we were able to determine in our management's report for fiscal 2017 that our internal control over financial reporting is effective, as well as provide an unqualified attestation report from our independent registered public accounting firm to that effect, we may not be able to complete our evaluation, testing, and any required remediation in a timely fashion, may be unable to assert that our internal controls are effective, or our independent registered public accounting firm may not be able to formally attest to the effectiveness of our internal control over financial reporting in the future. In the event that our chief executive officer, chief financial officer, or independent registered public accounting firm determines in the future that our internal control over financial reporting is not effective as defined under Section 404, we could be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments and causing investor perceptions to be adversely affected and potentially resulting in a decline in the market price of our stock.

Our charter documents and Delaware law, as well as certain provisions of our Notes, could discourage takeover attempts and lead to management entrenchment, which could also reduce the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change in control of our company or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- establish that our board of directors is divided into three classes, Class I, Class II and Class III, with three-year staggered terms;
- authorize our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval;
- provide our board of directors with the exclusive right 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;
- prohibit our stockholders from taking action by written consent;
- specify that special meetings of our stockholders may be called only by the chairman of our board of directors, our president, our secretary, or a majority vote of our board of directors;
- require 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 amended and restated certificate of incorporation relating to the issuance of preferred stock and management of our business or our amended and restated bylaws;
- authorize our board of directors to amend our bylaws by majority vote; and
- establish advance notice procedures with which our stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for our stockholders to replace members of our board of directors, which is responsible for appointing the members of management. 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. Additionally, certain provisions of our Notes could make it more difficult or more expensive for a third party to acquire us. The application of Section 203 or certain provisions of our Notes also could have the effect of delaying or preventing a change in control of us. Any of these provisions could, under certain circumstances, depress the market price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our corporate headquarters is located in Santa Clara, California where we lease approximately 941,000 square feet of space under three lease agreements that expire in July 2028, with options to extend the lease terms through July 2046. We also lease a total of approximately 422,000 square feet of space at two other locations in Santa Clara, which collectively served as our previous corporate headquarters through August 2017, when we relocated to our current campus. The leases for our previous corporate headquarters expire in April 2021 and July 2023. We also lease space for personnel in locations throughout the United States and various international locations, including Israel, the Netherlands, Singapore, Australia, and Japan. In addition, we provide our cloud-based subscription offerings through data centers operated under co-location arrangements in the United States, Europe, and Asia. Refer to Note 9. Commitments and Contingencies of Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on our operating leases.

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, and we believe that suitable additional or alternative space will be available as needed to accommodate ongoing operations and any such growth. However, we expect to incur additional expenses in connection with such new or expanded facilities.

ITEM 3. LEGAL PROCEEDINGS

The information set forth under the “Litigation” subheading in Note 9. Commitments and Contingencies of Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein 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 Information**

Our common stock, \$0.0001 par value per share, began trading on the NYSE on July 20, 2012, where its prices are quoted under the symbol "PANW."

Holders of Record

As of August 24, 2017, there were 88 holders of record of our common stock. Because many of our shares of 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 record holders.

Price Range of Our Common Stock

The following table sets forth the reported high and low sales prices of our common stock for the periods indicated, as regularly quoted on the NYSE:

	<u>High</u>	<u>Low</u>
Year Ended July 31, 2016		
First Quarter	\$ 191.00	\$ 140.39
Second Quarter	\$ 194.73	\$ 135.89
Third Quarter	\$ 165.29	\$ 111.09
Fourth Quarter	\$ 151.99	\$ 114.64
Year Ended July 31, 2017		
First Quarter	\$ 163.01	\$ 124.74
Second Quarter	\$ 165.69	\$ 123.57
Third Quarter	\$ 157.65	\$ 107.31
Fourth Quarter	\$ 143.90	\$ 108.15

Dividend Policy

We have never declared or paid, and do not anticipate declaring or paying in the foreseeable future, any cash dividends on our capital stock. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors, subject to applicable laws and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects, and other factors our board of directors may deem relevant.

Securities Authorized for Issuance under Equity Compensation Plans

See Part III, Item 12 "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" of this Annual Report on Form 10-K for more information regarding securities authorized for issuance.

Recent Sale of Unregistered Securities

There were no sales of unregistered securities during fiscal 2017.

[Table of Contents](#)**Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

The following table summarizes stock repurchases during the three months ended July 31, 2017 (in millions, except per share amounts):

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs ⁽¹⁾
May 1, 2017 to May 31, 2017 ⁽²⁾	—	\$ 116.50	—	\$ 704.9
June 1, 2017 to June 30, 2017 ⁽³⁾	0.5	\$ 133.82	0.5	\$ 636.1
July 1, 2017 to July 31, 2017 ⁽³⁾	0.4	\$ 135.57	0.4	\$ 580.0
Total	0.9	\$ 133.91	0.9	

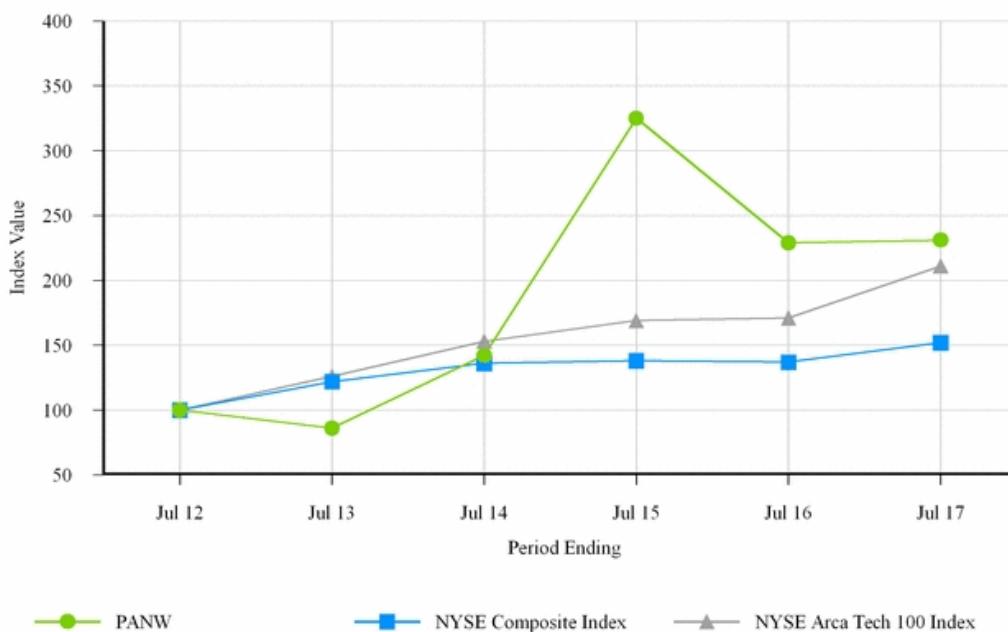
- (1) On August 26, 2016, our board of directors authorized a \$500.0 million share repurchase which is funded from available working capital. On February 24, 2017, our board of directors authorized a \$500.0 million increase to our repurchase program, bringing the total authorization to \$1.0 billion. Repurchases may be made at management's discretion from time to time on the open market, through privately negotiated transactions, transactions structured through investment banking institutions, block purchase techniques, 10b5-1 trading plans, or a combination of the foregoing. The repurchase authorization will expire on December 31, 2018, and may be suspended or discontinued at any time.
- (2) Repurchases during the month ended May 31, 2017 include shares of restricted common stock delivered by certain employees upon vesting of equity awards to satisfy tax withholding requirements. The number of shares delivered by these employees to satisfy tax withholding requirements during the period was not significant.
- (3) Repurchases during the months ended June 30, 2017 and July 31, 2017 consisted of repurchases under our share repurchase program, for which the average price paid per share excludes costs associated with the repurchases.

Stock Price Performance Graph

This performance graph shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference into any filing of Palo Alto Networks, Inc. under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

This performance graph compares the cumulative total return on our common stock with that of the NYSE Composite Index and the NYSE Arca Tech 100 Index for the five years ended July 31, 2017. This performance graph assumes \$100 was invested on July 31, 2012, in each of the common stock of Palo Alto Networks, Inc., the NYSE Composite Index, and the NYSE Arca Tech 100 Index, and assumes the reinvestment of any dividends. The stock price performance on this performance graph is not necessarily indicative of future stock price performance.

Palo Alto Networks, Inc. Comparison of Total Return Performance



Company/Index	7/31/2012	7/31/2013	7/31/2014	7/31/2015	7/31/2016	7/31/2017
Palo Alto Networks, Inc.	\$ 100.00	\$ 85.65	\$ 141.51	\$ 325.22	\$ 229.07	\$ 230.63
NYSE Composite Index	\$ 100.00	\$ 121.55	\$ 136.40	\$ 138.38	\$ 137.15	\$ 152.18
NYSE Arca Tech 100 Index	\$ 100.00	\$ 125.69	\$ 152.74	\$ 169.47	\$ 171.17	\$ 211.12

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for fiscal 2017, 2016, and 2015 and the consolidated balance sheet data as of July 31, 2017 and 2016 are derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected consolidated statement of operations data for fiscal 2014 and 2013 and the consolidated balance sheet data as of July 31, 2015, 2014, and 2013 are derived from audited financial statements not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected in the future. The selected consolidated financial data below should be read in conjunction with the section entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in Part II, Item 7 of this Annual Report on Form 10-K and our consolidated financial statements and related notes included in Part II, Item 8 of this Annual Report on Form 10-K.

	Year Ended July 31,				
	2017	2016	2015	2014	2013
	(in millions)				
Selected Consolidated Statements of Operations Data:					
Total revenue	\$ 1,761.6	\$ 1,378.5	\$ 928.1	\$ 598.2	\$ 396.1
Total gross profit	1,285.0	1,008.5	676.6	438.6	286.4
Operating loss ⁽¹⁾	(179.8)	(157.3)	(99.8)	(196.2)	(9.9)
Net loss ⁽¹⁾	\$ (216.6)	\$ (192.7)	\$ (131.3)	\$ (207.4)	\$ (20.5)
Net loss per share, basic and diluted ⁽¹⁾	\$ (2.39)	\$ (2.21)	\$ (1.61)	\$ (2.79)	\$ (0.30)
Weighted-average shares used to compute net loss per share, basic and diluted	90.6	87.1	81.6	74.3	68.7

	July 31,				
	2017	2016	2015	2014	2013
	(in millions)				
Selected Consolidated Balance Sheet Data:					
Cash and cash equivalents	\$ 744.3	\$ 734.4	\$ 375.8	\$ 653.8	\$ 310.6
Investments	1,420.0	1,204.0	952.0	320.6	126.3
Working capital ⁽¹⁾⁽²⁾⁽³⁾	775.0	927.2	79.3	630.9	334.5
Total assets ⁽¹⁾	3,438.3	2,858.2	2,026.1	1,502.6	603.9
Total deferred revenue	1,773.5	1,240.8	713.7	422.6	249.2
Convertible senior notes, net ⁽²⁾⁽³⁾	524.7	500.2	476.8	454.6	—
Common stock and additional paid-in capital	1,599.7	1,515.5	988.7	804.4	381.6
Total stockholders’ equity ⁽¹⁾	\$ 759.6	\$ 894.9	\$ 559.7	\$ 506.7	\$ 291.4

- (1) Prior period amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.
- (2) Prior period amounts have been adjusted due to our adoption of new accounting guidance related to the presentation of debt issuance costs. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.
- (3) The convertible senior notes, net balance was classified as a current liability in our consolidated balance sheets as of July 31, 2015, and classified as a long-term liability for all other periods presented.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. The following discussion and analysis contains forward-looking statements based on current expectations and assumptions that are subject to risks and uncertainties, which could cause our actual results to differ materially from those anticipated or implied by any forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Annual Report on Form 10-K, and in particular, the risks discussed under the caption "Risk Factors" in Part I, Item 1A of this report.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is organized as follows:

- **Overview.** A discussion of our business and overall analysis of financial and other highlights in order to provide context for the remainder of MD&A.
- **Key Financial Metrics.** A summary of our GAAP and non-GAAP key financial metrics, which management monitors to evaluate our performance.
- **Results of Operations.** A discussion of the nature and trends in our financial results and an analysis of our financial results comparing fiscal 2017 to 2016 and fiscal 2016 to 2015.
- **Liquidity and Capital Resources.** An analysis of changes in our balance sheets and cash flows, and a discussion of our financial condition and our ability to meet cash needs.
- **Contractual Obligations and Commitments.** An overview of our contractual obligations, contingent liabilities, commitments, and off-balance sheet arrangements outstanding as of July 31, 2017, including expected payment schedules.
- **Critical Accounting Estimates.** A discussion of our accounting policies that require critical estimates, assumptions, and judgments.
- **Recent Accounting Pronouncements.** A discussion of expected impacts of impending accounting changes on financial information to be reported in the future.

Overview

We have pioneered the next generation of security through our innovative platform that allows enterprises, service providers, and government entities to secure their organizations by safely enabling applications running on their networks and by preventing successful breaches that stem from targeted cyberattacks. Our platform uses an innovative traffic classification engine that identifies network traffic by application, user, and content and provides consistent security across the network, endpoint, and cloud. Accordingly, our platform enables our end-customers to maintain the visibility and control needed to protect their valued data and critical control systems while pursuing technology initiatives, like cloud and mobility, that grow their business. We believe our platform offers superior performance compared to legacy approaches and reduces the total cost of ownership for organizations by simplifying their security operations and infrastructure and eliminating the need for multiple, stand-alone security appliances and software products.

Our Next-Generation Security Platform consists of three major elements: our Next-Generation Firewall, our Advanced Endpoint Protection, and our Threat Intelligence Cloud. Our Next-Generation Firewall comes in several physical and cloud-based software form-factors and delivers application, user, and content visibility and control as well as protection against network-based cyberthreats integrated within the firewall through our proprietary hardware and software architecture. Our Advanced Endpoint Protection software prevents cyberattacks that aim to run malicious code or exploit software vulnerabilities on a broad variety of fixed, mobile, and virtual endpoints and servers. Our Threat Intelligence Cloud provides central intelligence capabilities, security for SaaS applications, and automated delivery of preventative measures against cyberattacks.

For fiscal 2017, 2016, and 2015, total revenue was \$1.8 billion, \$1.4 billion, and \$928.1 million, respectively, representing year-over-year growth of 27.8% for fiscal 2017 and 48.5% for fiscal 2016. Our growth reflects the increased adoption of our hybrid SaaS revenue model, which consists of product, subscriptions, and support. We believe this model will enable us to benefit from recurring revenues as we continue to grow our installed end-customer base. As of July 31, 2017, we had more than 42,500 end-customers in over 150 countries. Our end-customers represent a broad range of industries including education, energy, financial services, government entities, healthcare, Internet and media, manufacturing, public sector, and telecommunications, and include some of the largest Fortune 100 and Global 2000 companies in the world. We maintain a field sales force that works

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closely with our channel partners in developing sales opportunities. We use a two-tiered, indirect fulfillment model whereby we sell our products and services to our distributors, which, in turn, sell to our resellers, which then sell to our end-customers.

Our product revenue grew to \$709.1 million or 40.3% of total revenue for fiscal 2017, representing year-over-year growth of 5.7%. Product revenue is generated from sales of our appliances, primarily our Next-Generation Firewall, which is available in physical and virtualized form. Our Next-Generation Firewall incorporates our proprietary PAN-OS operating system, which provides a consistent set of capabilities across our entire product line. Our products are designed for different performance requirements throughout an organization, ranging from our PA-200, which is designed for enterprise remote offices, to our top-of-the-line PA-7080, which is especially suited for very large enterprise deployments and service provider customers. The same firewall functionality that is delivered in our physical appliances is also available in our VM-Series virtual firewalls, which secure virtualized and cloud-based computing environments.

Our subscription and support revenue grew to \$1.1 billion or 59.7% of total revenue for fiscal 2017, representing year-over-year growth of 48.7%. Our subscriptions provide our end-customers with real-time access to the latest antivirus, intrusion prevention, web filtering, and modern malware prevention capabilities across fixed and mobile devices. When end-customers purchase an appliance, they typically purchase one or more of our subscriptions for additional functionality, as well as support in order to receive ongoing security updates, upgrades, bug fixes, and repairs.

We continue to invest in and extend our platform, as 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. In February 2017, we expanded our family of firewalls with the launch of several new appliances: our PA-220, which is designed for small branch offices and remote locations; our PA-800 series, which are ideal for medium-sized networks and branch and remote office environments; our PA-5200 series, which deliver security for high throughput environments in a compact form factor; and three new VM-Series virtual firewall models, which support cloud and virtualization initiatives ranging from virtualized branch offices to data center and service provider deployments. We also delivered PAN-OS 8.0, an important software release that expands security for public and private clouds, provides new SaaS application security functionality, and also provides the capabilities to prevent the theft and abuse of stolen credentials. Additionally, in February 2017, we acquired LightCyber Ltd. (“LightCyber”), a privately-held cybersecurity company. LightCyber’s technology expands the functionality of our platform through the addition of behavioral analytics, and will be the foundation for a new future subscription offering. We also expect to release two new cloud-based subscription offerings in September 2017: our GlobalProtect cloud service subscription, which provides our Next Generation Security Platform as a cloud-based service for remote offices and mobile users; and our Logging Service subscription, which functions as the central cloud-based repository for all application data and logs, and allows end-customers to collect data without needing to plan for local processing power and storage.

We plan to continue our investment in innovation as we evolve and further extend the capabilities of our platform. For example, in June 2017, we announced the next phase in the evolution of our Next-Generation Security Platform: our Palo Alto Networks Application Framework. Our cloud-based Application Framework will introduce a new SaaS consumption model under which our end-customers will be able to rapidly implement cloud-based security applications developed by us, third-party developers, or other security vendors, without having to deploy or manage additional products. We expect our Application Framework to become generally available in the early 2018 calendar year, with continuous and ongoing introduction of new security applications.

We believe that the growth of our business and our short-term and long-term success are dependent upon many factors, including our ability to extend our technology leadership, grow our base of end-customers, expand deployment of our platform and support offerings within existing end-customers, and focus on end-customer satisfaction. To manage any future growth effectively, we must continue to improve and expand our information technology and financial infrastructure, our operating and administrative systems and controls, and our ability to manage headcount, capital, and processes in an efficient manner. While these areas present significant opportunities for us, they also pose challenges and risks that we must successfully address in order to sustain the growth of our business and improve our operating results. For additional information regarding the challenges and risks we face, see the “Risk Factors” section in Part I, Item 1A of this Annual Report on Form 10-K.

Key Financial Metrics

We monitor the key financial metrics set forth in the tables below to help us evaluate growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts, and assess operational efficiencies. We discuss revenue, gross margin, and the components of operating loss and margin below under “—Results of Operations.”

	July 31,		
	2017	2016	
(in millions)			
Total deferred revenue	\$	1,773.5	\$ 1,240.8
Cash, cash equivalents, and investments	\$	2,164.3	\$ 1,938.4

	Year Ended July 31,		
	2017	2016	2015
(dollars in millions)			
Total revenue	\$ 1,761.6	\$ 1,378.5	\$ 928.1
Total revenue year-over-year percentage increase	27.8 %	48.5 %	55.1 %
Gross margin	72.9 %	73.2 %	72.9 %
Operating loss ⁽¹⁾	\$ (179.8)	\$ (157.3)	\$ (99.8)
Operating margin ⁽¹⁾	(10.2)%	(11.4)%	(10.8)%
Billings	\$ 2,293.4	\$ 1,905.6	\$ 1,219.1
Billings year-over-year percentage increase	20.4 %	56.3 %	58.0 %
Cash flow provided by operating activities ⁽²⁾	\$ 868.5	\$ 658.6	\$ 352.8
Free cash flow (non-GAAP) ⁽²⁾	\$ 705.1	\$ 586.1	\$ 319.0

- (1) Prior period amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.
- (2) Prior period amounts have been adjusted due to our early adoption of new share-based payment accounting guidance. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

- **Deferred Revenue.** Our deferred revenue consists of amounts that have been invoiced but have not been recognized as revenue as of the period end. The majority of our deferred revenue balance consists of subscription and support revenue that is recognized ratably over the contractual service period. We monitor our deferred revenue balance because it represents a significant portion of revenue to be recognized in future periods.
- **Billings.** We define billings as total revenue plus the change in total deferred revenue, net of acquired deferred revenue, during the period. We consider billings to be a key measure used by management to manage our business given our hybrid SaaS revenue model, and believe billings provides investors with an important indicator of the health and visibility of our business because it includes subscription and support revenue, which is recognized ratably over the contractual service period, and product revenue, which is recognized at the time of shipment, provided that all other revenue recognition criteria have been met. We consider billings to be a useful metric for management and investors, particularly if we continue to experience increased sales of subscriptions and strong renewal rates for subscription and support offerings, and as we monitor our near term cash flows. While we believe that billings provides useful information to investors and others in understanding and evaluating our operating results in the same manner as our management, it is important to note that other companies, including companies in our industry, may not use billings, may calculate billings differently, may have different billing frequencies, or may use other financial measures to evaluate their performance, all of which could reduce the usefulness of billings as a comparative measure. We calculate billings in the following manner:

	Year Ended July 31,		
	2017	2016	2015
	(in millions)		
Billings:			
Total revenue	\$ 1,761.6	\$ 1,378.5	\$ 928.1
Add: change in total deferred revenue, net of acquired deferred revenue	531.8	527.1	291.0
Billings	<u>\$ 2,293.4</u>	<u>\$ 1,905.6</u>	<u>\$ 1,219.1</u>

- Cash Flow Provided by Operating Activities.** We monitor cash flow provided by operating activities as a measure of our overall business performance. Our cash flow provided by operating activities is driven in large part by sales of our products and from up-front payments for subscription and support offerings. Monitoring cash flow provided by operating activities enables us to analyze our financial performance without the non-cash effects of certain items such as depreciation, amortization, and share-based compensation costs, thereby allowing us to better understand and manage the cash needs of our business.
- Free Cash Flow (non-GAAP).** We define free cash flow, a non-GAAP financial measure, as cash provided by operating activities less purchases of property, equipment, and other assets. We consider free cash flow to be a profitability and liquidity measure that provides useful information to management and investors about the amount of cash generated by the business after necessary capital expenditures. A limitation of the utility of free cash flow as a measure of our financial performance and liquidity is that it does not represent the total increase or decrease in our cash balance for the period. In addition, it is important to note that other companies, including companies in our industry, may not use free cash flow, may calculate free cash flow in a different manner than we do, or may use other financial measures to evaluate their performance, all of which could reduce the usefulness of free cash flow as a comparative measure. A reconciliation of free cash flow to cash flow provided by operating activities, the most directly comparable financial measure calculated and presented in accordance with GAAP, is provided below:

	Year Ended July 31,		
	2017	2016	2015
	(in millions)		
Free cash flow (non-GAAP):			
Net cash provided by operating activities ⁽¹⁾	\$ 868.5	\$ 658.6	\$ 352.8
Less: purchases of property, equipment, and other assets	163.4	72.5	33.8
Free cash flow (non-GAAP) ⁽¹⁾	<u>\$ 705.1</u>	<u>\$ 586.1</u>	<u>\$ 319.0</u>
Net cash used in investing activities	<u>\$ (472.6)</u>	<u>\$ (338.9)</u>	<u>\$ (679.0)</u>
Net cash provided by (used in) financing activities ⁽¹⁾	<u>\$ (386.0)</u>	<u>\$ 38.9</u>	<u>\$ 48.2</u>

- (1) Prior period amounts have been adjusted due to our early adoption of new share-based payment accounting guidance. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

Results of Operations

The following table summarizes our results of operations for the periods presented and as a percentage of our total revenue for those periods based on our consolidated statements of operations data. The period to period comparison of results is not necessarily indicative of results for future periods.

	Year Ended July 31,					
	2017		2016		2015	
	Amount	% of Revenue	Amount ⁽¹⁾	% of Revenue ⁽¹⁾	Amount ⁽¹⁾	% of Revenue ⁽¹⁾
(dollars in millions)						
Revenue:						
Product	\$ 709.1	40.3 %	\$ 670.8	48.7 %	\$ 492.7	53.1 %
Subscription and support	1,052.5	59.7 %	707.7	51.3 %	435.4	46.9 %
Total revenue	1,761.6	100.0 %	1,378.5	100.0 %	928.1	100.0 %
Cost of revenue:						
Product	201.4	11.4 %	175.4	12.7 %	131.1	14.1 %
Subscription and support	275.2	15.7 %	194.6	14.1 %	120.4	13.0 %
Total cost of revenue ⁽²⁾	476.6	27.1 %	370.0	26.8 %	251.5	27.1 %
Total gross profit	1,285.0	72.9 %	1,008.5	73.2 %	676.6	72.9 %
Operating expenses:						
Research and development	347.4	19.7 %	284.2	20.6 %	185.8	20.0 %
Sales and marketing	919.1	52.2 %	743.2	53.9 %	489.0	52.7 %
General and administrative	198.3	11.2 %	138.4	10.1 %	101.6	11.0 %
Total operating expenses ⁽²⁾	1,464.8	83.1 %	1,165.8	84.6 %	776.4	83.7 %
Operating loss	(179.8)	(10.2)%	(157.3)	(11.4)%	(99.8)	(10.8)%
Interest expense	(24.5)	(1.4)%	(23.4)	(1.7)%	(22.3)	(2.4)%
Other income, net	10.2	0.6 %	8.4	0.6 %	0.2	— %
Loss before income taxes	(194.1)	(11.0)%	(172.3)	(12.5)%	(121.9)	(13.2)%
Provision for income taxes	22.5	1.3 %	20.4	1.5 %	9.4	1.0 %
Net loss	\$ (216.6)	(12.3)%	\$ (192.7)	(14.0)%	\$ (131.3)	(14.2)%

- (1) Certain prior period amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

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(2) Includes share-based compensation as follows:

	Year Ended July 31,		
	2017	2016	2015
	(in millions)		
Cost of product revenue	\$ 7.3	\$ 6.2	\$ 3.9
Cost of subscription and support revenue	56.2	40.9	20.4
Research and development	152.6	132.9	74.8
Sales and marketing	186.5	152.4	84.1
General and administrative	73.1	60.5	38.2
Total share-based compensation	\$ 475.7	\$ 392.9	\$ 221.4

Revenue

Our revenue consists of product revenue and subscription and support revenue. Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectability is reasonably assured. We expect our revenue to vary from quarter to quarter based on seasonal and cyclical factors.

Product Revenue

Product revenue is derived primarily from sales of our appliances. Product revenue also includes revenue derived from software licenses of Panorama and the VM-Series. We recognize product revenue at the time of shipment, provided that all other revenue recognition criteria have been met.

	Year Ended July 31,				Year Ended July 31,			
	2017	2016	Change		2016	2015	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Product	\$ 709.1	\$ 670.8	\$ 38.3	5.7%	\$ 670.8	\$ 492.7	\$ 178.1	36.2%

Product revenue increased year-over-year for fiscal 2017 due to demand for our newly introduced appliances. Product revenue increased year-over-year for fiscal 2016 due to increased demand for our higher end appliances. The change in product revenue due to pricing was not significant for either period.

Subscription and Support Revenue

Subscription and support revenue is derived primarily from sales of our subscription and support offerings. Our contractual subscription and support terms are typically one to five years. We recognize revenue from subscriptions and support over the contractual service period. As a percentage of total revenue, we expect our subscription and support revenue to vary from quarter to quarter and increase over the long term as we introduce new subscriptions, renew existing subscription and support contracts, and expand our installed end-customer base. Prior to fiscal 2017, subscription and support revenue was referred to as services revenue. The composition of subscription and support revenue has not been modified.

	Year Ended July 31,				Year Ended July 31,			
	2017	2016	Change		2016	2015	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Subscription	\$ 550.8	\$ 357.0	\$ 193.8	54.3%	\$ 357.0	\$ 212.7	\$ 144.3	67.8%
Support	501.7	350.7	151.0	43.1%	350.7	222.7	128.0	57.5%
Total subscription and support	\$ 1,052.5	\$ 707.7	\$ 344.8	48.7%	\$ 707.7	\$ 435.4	\$ 272.3	62.5%

Subscription and support revenue increased year-over-year for both fiscal 2017 and fiscal 2016. The increases in both periods were due to increased demand for our subscription and support offerings from both new and existing end-customers. The mix between subscription revenue and support revenue will fluctuate over time, depending on the introduction of new subscription

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offerings, renewals of support services, and our ability to increase sales to new and existing customers. The change in subscription and support revenue due to changes in pricing was not significant for either period.

Revenue by Geographic Theater

	Year Ended July 31,				Year Ended July 31,			
	2017	2016	Change		2016	2015	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
(dollars in millions)								
Americas	\$ 1,237.4	\$ 973.2	\$ 264.2	27.1%	\$ 973.2	\$ 639.4	\$ 333.8	52.2%
EMEA	320.1	247.1	73.0	29.5%	247.1	178.7	68.4	38.2%
APAC	204.1	158.2	45.9	29.0%	158.2	110.0	48.2	43.8%
Total revenue	<u>\$ 1,761.6</u>	<u>\$ 1,378.5</u>	<u>\$ 383.1</u>	27.8%	<u>\$ 1,378.5</u>	<u>\$ 928.1</u>	<u>\$ 450.4</u>	48.5%

With respect to geographic theaters, the Americas contributed the largest portion of the year-over-year increases in revenue for both fiscal 2017 and fiscal 2016 due to its larger and more established sales force compared to our other theaters. Revenue from both EMEA and APAC increased year-over-year for both fiscal 2017 and fiscal 2016 due to our investment in increasing the size of our sales force and number of channel partners in these theaters.

Cost of Revenue

Our cost of revenue consists of cost of product revenue and cost of subscription and support revenue.

Cost of Product Revenue

Cost of product revenue primarily includes costs paid to our manufacturing partners. Our cost of product revenue also includes personnel costs, which consist of salaries, benefits, bonuses, share-based compensation, and travel and entertainment associated with our operations organization, amortization of intellectual property licenses, product testing costs, shipping costs, and allocated costs. Allocated costs consist of certain facilities, depreciation, benefits, recruiting, and information technology costs that we allocate based on headcount. We expect our cost of product revenue to increase as our product revenue increases.

	Year Ended July 31,				Year Ended July 31,			
	2017	2016	Change		2016	2015	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
(dollars in millions)								
Cost of product revenue	\$ 201.4	\$ 175.4	\$ 26.0	14.8%	\$ 175.4	\$ 131.1	\$ 44.3	33.8%
Number of employees at period end	96	91	5	5.5%	91	67	24	35.8%

Cost of product revenue increased for fiscal 2017 compared to fiscal 2016 primarily due to higher product costs related to our newly introduced appliances.

Cost of product revenue increased for fiscal 2016 compared to fiscal 2015 primarily due to an increase in product unit volume for our higher end appliances.

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Cost of Subscription and Support Revenue

Cost of subscription and support revenue includes personnel costs for our global customer support and technical operations organizations, customer support costs, third-party professional services costs, amortization of acquired intangible assets, and allocated costs. We expect our cost of subscription and support revenue to increase as our installed end-customer base grows. Prior to fiscal 2017, cost of subscription and support revenue was referred to as cost of services revenue. The composition of cost of subscription and support revenue has not been modified.

	Year Ended July 31,				Year Ended July 31,			
	2017		2016		2016		2015	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Cost of subscription and support revenue	\$ 275.2	\$ 194.6	\$ 80.6	41.4%	\$ 194.6	\$ 120.4	\$ 74.2	61.7%
Number of employees at period end	725	539	186	34.5%	539	357	182	51.0%

Cost of subscription and support revenue increased for fiscal 2017 compared to fiscal 2016 primarily due to an increase in personnel costs, which grew \$45.3 million to \$155.4 million, largely due to headcount growth. The remaining increase was primarily driven by costs to expand our customer service capabilities and infrastructure, customer support costs, and allocated costs. The increase in allocated costs was primarily due to our expansion of facilities to support the growth of our business.

Cost of subscription and support revenue increased for fiscal 2016 compared to fiscal 2015 primarily due to an increase in personnel costs, which grew \$42.1 million to \$104.1 million, largely due to headcount growth. The remaining increase was due to expansion of our customer service capabilities and infrastructure to support our growing installed end-customer base.

Gross Margin

Gross margin, or gross profit as a percentage of revenue, has been and will continue to be affected by a variety of factors, including the average sales price of our products, manufacturing costs, the introduction of new products, the mix of products sold, and the mix of revenue between product and subscription and support offerings. For sales of our products, our higher end firewall products generally have higher gross margins than our lower end firewall products within each product series. For sales of our subscription and support offerings, our subscription offerings typically have higher gross margins than our support offerings. We expect our gross margins to fluctuate over time depending on the factors described above.

	Year Ended July 31,					
	2017		2016		2015	
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin
	(dollars in millions)					
Product	\$ 507.7	71.6%	\$ 495.4	73.9%	\$ 361.6	73.4%
Subscription and support	777.3	73.9%	513.1	72.5%	315.0	72.3%
Total gross profit	\$ 1,285.0	72.9%	\$ 1,008.5	73.2%	\$ 676.6	72.9%

Product gross margin decreased for fiscal 2017 compared to fiscal 2016 due to higher product costs related to our newly introduced appliances, which will have lower product margins. Product gross margin increased for fiscal 2016 compared to fiscal 2015 due to our continued focus on material cost reductions.

Subscription and support gross margin increased for fiscal 2017 compared to fiscal 2016 due to contributions from our higher margin subscription offerings. Subscription and support gross margin was flat for fiscal 2016 compared to fiscal 2015.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expense. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, share-based compensation, travel and entertainment, and with regard to sales and marketing expense, sales commissions. Our operating expenses also include allocated costs, which consist of certain facilities, depreciation, benefits, recruiting, and information technology costs that we allocate based on headcount. We expect operating expenses to increase in absolute dollars and decrease over the long term as a percentage of revenue as we continue to scale our business. As of July 31, 2017, we expect to recognize approximately \$906.8 million of share-based compensation expense over a weighted-average period of approximately 2.6 years,

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excluding additional share-based compensation expense related to any future grants of share-based awards. Share-based compensation expense is generally recognized on a straight-line basis over the requisite service periods of the awards.

Research and Development

Research and development expense consists primarily of personnel costs. Research and development expense also includes prototype related expenses and allocated costs. We expect research and development expense to increase in absolute dollars as we continue to invest in our future products and services, although our research and development expense may fluctuate as a percentage of total revenue.

	Year Ended July 31,				Year Ended July 31,			
	2017	2016	Change		2016	2015	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Research and development	\$ 347.4	\$ 284.2	\$ 63.2	22.2%	\$ 284.2	\$ 185.8	\$ 98.4	52.9%
Number of employees at period end	766	637	129	20.3%	637	475	162	34.1%

Research and development expense increased year-over-year for both fiscal 2017 and fiscal 2016. The increases in both periods were driven by increases in personnel costs, which grew \$46.4 million to \$286.0 million for fiscal 2017 compared to fiscal 2016 and grew \$86.8 million to \$236.4 million for fiscal 2016 compared to fiscal 2015. The increases in personnel costs in both periods were primarily due to headcount growth. The remaining increase for fiscal 2017 was primarily driven by an increase in allocated costs, due to our expansion of facilities to support the growth of our business, and development costs related to investments in our new and future offerings.

Sales and Marketing

Sales and marketing expense consists primarily of personnel costs, including commission expense. Sales and marketing expense also includes costs for market development programs, promotional and other marketing costs, professional services, and allocated costs. We continue to thoughtfully invest in headcount and have substantially grown our sales presence internationally. We expect sales and marketing expense to continue to increase in absolute dollars as we increase the size of our sales and marketing organizations to increase touch points with end-customers and to expand our international presence, although our sales and marketing expense may fluctuate as a percentage of total revenue.

	Year Ended July 31,				Year Ended July 31,			
	2017	2016	Change		2016	2015	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Sales and marketing ⁽¹⁾	\$ 919.1	\$ 743.2	\$ 175.9	23.7%	\$ 743.2	\$ 489.0	\$ 254.2	52.0%
Number of employees at period end	2,418	2,092	326	15.6%	2,092	1,443	649	45.0%

- (1) Prior period amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

Sales and marketing expense increased year-over-year for both fiscal 2017 and fiscal 2016. The increases in both periods were driven by increases in personnel costs, which grew \$145.0 million to \$716.1 million for fiscal 2017 compared to fiscal 2016 and grew \$186.1 million to \$520.2 million for fiscal 2016 compared to fiscal 2015. The increases in personnel costs in both periods were primarily due to headcount growth. The remaining increase for fiscal 2017 was primarily driven by an increase in allocated costs, due to our expansion of facilities to support the growth of our business, and an increase in demand generation activities and sales related events to support our revenue growth.

General and Administrative

General and administrative expense consists primarily of personnel costs for our executive, finance, human resources, legal, and information technology organizations, and professional services costs, which consist primarily of legal, auditing, accounting, and other consulting costs. General and administrative expense also includes certain non-recurring general expenses and

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impairment losses. Certain facilities, depreciation, benefits, recruiting, and information technology costs are allocated to other organizations based on headcount. We expect general and administrative expense to increase in absolute dollars due to additional costs associated with accounting, compliance, insurance, and investor relations, although our general and administrative expense may fluctuate as a percentage of total revenue.

	Year Ended July 31,				Year Ended July 31,			
	2017		2016		2016		2015	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
(dollars in millions)								
General and administrative	\$ 198.3	\$ 138.4	\$ 59.9	43.3%	\$ 138.4	\$ 101.6	\$ 36.8	36.2%
Number of employees at period end	557	436	121	27.8%	436	295	141	47.8%

General and administrative expense increased for fiscal 2017 compared to fiscal 2016 primarily due to an increase in personnel costs, which grew \$29.3 million to \$128.1 million, largely due to headcount growth, and a fiscal 2017 impairment loss of \$20.9 million on property and equipment related to the relocation of our corporate headquarters. We expect to recognize a loss of approximately \$15.4 million on the lease of our previous headquarter facilities in the first quarter of fiscal 2018, when we officially cease use of such facilities. Refer to Note 9. Commitments and Contingencies and Note 18. Subsequent Events in Part II, Item 8 of this Annual Report on Form 10-K for more information. The remaining increase for fiscal 2017 was primarily driven by an increase in allocated costs due to our expansion of facilities to support the growth of our business.

General and administrative expense increased for fiscal 2016 compared to fiscal 2015 primarily due to an increase in personnel costs, which grew \$32.9 million to \$96.5 million, largely due to headcount growth.

Other Income, Net

Other income, net includes interest income earned on our cash, cash equivalents, and investments, foreign currency remeasurement gains and losses, and foreign currency transaction gains and losses.

	Year Ended July 31,				Year Ended July 31,			
	2017		2016		2016		2015	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
(dollars in millions)								
Other income, net	\$ 10.2	\$ 8.4	\$ 1.8	NM	\$ 8.4	\$ 0.2	\$ 8.2	NM

Other income, net increased for fiscal 2017 compared to fiscal 2016 due to an increase in interest income, partially offset by increased foreign currency remeasurement losses.

Other income, net increased for fiscal 2016 compared to fiscal 2015 due to an increase in interest income and higher foreign currency remeasurement gains.

Provision for Income Taxes

Provision for income taxes consists primarily of income taxes in foreign jurisdictions in which we conduct business, withholding taxes, federal and state income taxes in the United States, and amortization of our deferred tax charges. We maintain a full valuation allowance for domestic and certain foreign deferred tax assets, including net operating loss carryforwards and tax credits.

In recent years, we reorganized our corporate structure and intercompany relationships to more closely align with the international nature of our business activities. Our corporate structure has caused, and may continue to cause, disproportionate relationships between our overall effective tax rate and other jurisdictional measures.

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	Year Ended July 31,				Year Ended July 31,			
	2017		2016		2016		2015	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Provision for income taxes ⁽¹⁾	\$ 22.5	\$ 20.4	\$ 2.1	10.3%	\$ 20.4	\$ 9.4	\$ 11.0	117.0%
Effective tax rate ⁽¹⁾	(11.6)%	(11.8)%			(11.8)%	(7.7)%		

- (1) Prior period amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

We recorded an income tax provision for fiscal 2017 due to foreign income taxes, withholding taxes, and amortization of our deferred tax charges. The provision for income taxes increased for fiscal 2017 compared to fiscal 2016 primarily due to increases in foreign withholding taxes and U.S. income taxes related to intercompany transactions, offset by tax benefits from our adoption of new share-based payment accounting guidance in fiscal 2017.

We recorded an income tax provision for fiscal 2016 due to federal, state, and foreign income taxes, withholding taxes, and amortization of our deferred tax charges. The provision for income taxes increased for fiscal 2016 compared to fiscal 2015 primarily due to an increase in foreign taxes and amortization of our deferred tax charges.

Liquidity and Capital Resources

	July 31,	
	2017	2016
	(in millions)	
Working capital ⁽¹⁾	\$ 775.0	\$ 927.2
Cash, cash equivalents, and investments:		
Cash and cash equivalents	\$ 744.3	\$ 734.4
Investments	1,420.0	1,204.0
Total cash, cash equivalents, and investments	\$ 2,164.3	\$ 1,938.4

- (1) Prior period amount has been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

At July 31, 2017, our total cash, cash equivalents, and investments of \$2.2 billion were held for general corporate purposes, of which approximately \$223.0 million was held outside of the United States. As of July 31, 2017, we had no unremitted earnings when evaluating our outside basis differences relating to our investment in foreign subsidiaries; accordingly, there is no restriction on the use of these funds.

As of July 31, 2017, all of the Notes remained outstanding. The Notes mature on July 1, 2019, however, prior to January 1, 2019, holders may surrender their Notes for early conversion under certain circumstances. Upon conversion, we will pay cash equal to the aggregate principal amount of the Notes to be converted, and, at our election, will pay or deliver cash and/or shares of our common stock for the amount of our conversion obligation in excess of the aggregate principal amount of the Notes being converted. Refer to Note 8. Convertible Senior Notes included in Part II, Item 8 of this Annual Report on Form 10-K for information on the Notes.

In August 2016, our board of directors authorized a \$500.0 million share repurchase and, in February 2017, authorized a \$500.0 million increase to our repurchase program, bringing the total authorization to \$1.0 billion. Repurchases are funded from available working capital and may be made at management's discretion from time to time. The repurchase authorization will expire on December 31, 2018, and may be suspended or discontinued at any time. As of July 31, 2017, \$580.0 million was available for future share repurchases under the repurchase authorization. Refer to Note 10. Stockholders' Equity in Part II, Item 8 of this Annual Report on Form 10-K for information on the repurchase authorization.

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The following table summarizes our cash flows for the years ended July 31, 2017, 2016, and 2015:

	Year Ended July 31,		
	2017	2016	2015
	(in millions)		
Net cash provided by operating activities ⁽¹⁾	\$ 868.5	\$ 658.6	\$ 352.8
Net cash used in investing activities	(472.6)	(338.9)	(679.0)
Net cash provided by (used in) financing activities ⁽¹⁾	(386.0)	38.9	48.2
Net increase (decrease) in cash and cash equivalents	\$ 9.9	\$ 358.6	\$ (278.0)

- (1) Prior period amounts have been adjusted due to our early adoption of new share-based payment accounting guidance. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part II, Item 8 of this Annual Report on Form 10-K for more information.

We believe that our cash flow from operations with existing cash and cash equivalents will be sufficient to meet our anticipated cash needs for the foreseeable future. Our future capital requirements will depend on many factors including our growth rate, the timing and extent of spending to support development efforts, the expansion of sales and marketing activities, the introduction of new and enhanced products and subscription and support offerings, the costs to acquire or invest in complementary businesses and technologies, the costs to ensure access to adequate manufacturing capacity, the investments in our new corporate headquarters, and the continuing market acceptance of our products and subscription and support offerings. In addition, from time to time we may incur additional tax liability in connection with certain corporate structuring decisions.

We may also choose to seek additional equity or debt financing. In the event that additional financing is required from outside sources, we may not be able to raise it 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 may be adversely affected.

Operating Activities

Our operating activities have consisted of net losses adjusted for certain non-cash items and changes in assets and liabilities.

Cash provided by operating activities in fiscal 2017 was \$868.5 million, an increase of \$209.9 million compared to fiscal 2016. The increase was due to growth of our business, as reflected by an increase in billings, and an increase in collections on accounts receivable during fiscal 2017.

Cash provided by operating activities in fiscal 2016 was \$658.6 million, an increase of \$305.8 million compared to fiscal 2015. The increase was due to growth of our business and changes in our assets and liabilities during fiscal 2016, which included an increase in sales of subscription and support contracts to new and existing customers as reflected by an increase in deferred revenue, and was partially offset by an increase in accounts receivable due to an increase in sales near the end of the period.

Investing Activities

Our investing activities have consisted of capital expenditures, net investment purchases, sales, and maturities, and business acquisitions. We expect to continue such activities as our business grows.

Cash used in investing activities during fiscal 2017 was \$472.6 million, an increase of \$133.7 million compared to fiscal 2016, due to increased investment in facilities to support the growth of our business and a net cash payment of \$90.7 million for our acquisition of LightCyber, partially offset by lower net purchases of available-for-sale investments during fiscal 2017.

Cash used in investing activities during fiscal 2016 was \$338.9 million, a decrease of \$340.1 million compared to fiscal 2015, due to lower net purchases of available-for-sale investments and a payment of \$15.1 million related to our acquisition of CirroSecure in fiscal 2015, partially offset by increased investment in infrastructure and facilities to support the growth of our business.

Financing Activities

Our financing activities have consisted of proceeds from sales of shares through employee equity incentive plans, cash used to repurchase shares of our common stock, and payments for tax withholding obligations of certain employees related to the net share settlement of equity awards.

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Cash used in financing activities during fiscal 2017 was \$386.0 million, a change of \$424.9 million compared to fiscal 2016, due to the repurchase of \$411.0 million of our common stock and payments for tax withholding obligations of certain employees related to the net share settlement of equity awards of \$21.4 million during fiscal 2017.

Cash provided by financing activities during fiscal 2016 was \$38.9 million, a decrease of \$9.3 million compared to fiscal 2015, due to a payment of deferred consideration related to our acquisition of Cyvera and lower proceeds from the sale of shares through employee equity incentive plans.

Contractual Obligations and Commitments

The following summarizes our contractual obligations and commitments as of July 31, 2017:

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
	(in millions)				
0.0% Convertible Senior Notes due 2019	\$ 575.0	\$ —	\$ 575.0	\$ —	\$ —
Operating lease obligations ⁽¹⁾	517.5	31.0	110.8	111.2	264.5
Purchase obligations ⁽²⁾	104.1	98.5	5.6	—	—
Total ⁽³⁾	<u>\$ 1,196.6</u>	<u>\$ 129.5</u>	<u>\$ 691.4</u>	<u>\$ 111.2</u>	<u>\$ 264.5</u>

- (1) Consists of contractual obligations from our non-cancelable operating leases. Excludes contractual sublease proceeds of \$2.1 million, which will be received in less than one year. Refer to Note 9. Commitments and Contingencies of Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on our operating leases.
- (2) Consists of minimum purchase commitments of products and components with our manufacturing partners and component suppliers. Obligations under contracts that we can cancel without a significant penalty are not included in the table above.
- (3) No amounts related to income taxes are included. As of July 31, 2017, we had approximately \$62.2 million of tax liabilities recorded related to uncertainty in income tax positions.

Off-Balance Sheet Arrangements

Through July 31, 2017, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Estimates

Our consolidated financial statements have been prepared in accordance with U.S. GAAP. 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 base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Actual results may differ from these estimates. To the extent that there are material differences between these estimates and our actual results, our future financial statements will be affected.

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, and collectability is reasonably assured. Most of our arrangements, other than renewals of subscriptions and support contracts, are multiple-element arrangements with a combination of hardware, software, subscriptions, support, and other services. For multiple-element arrangements, we allocate revenue to each unit of accounting based on an estimated selling price at the arrangement inception. The estimated selling price for each element is based upon the following hierarchy:

- Vendor-specific objective evidence (“VSOE”) of selling price, if available,

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- Third-party evidence (“TPE”) of selling price, if VSOE of selling price is not available, or
- Best estimate of selling price (“BESP”), if neither VSOE of selling price nor TPE of selling price are available.

We establish VSOE of selling price using the prices charged for a deliverable when sold separately. We establish TPE of selling price by evaluating similar and interchangeable competitor products or services in standalone arrangements with similarly situated partners. We establish BESP primarily based on historical transaction pricing, whereby historical transactions are segregated based on our pricing model and our go-to-market strategy, which include factors such as type of sales channel (reseller, distributor, or end-customer), the geographies in which our products and services were sold (domestic or international), and offering type (products or services). To further support BESP as determined by the historical transaction pricing or when such information is unavailable, such as when there are limited sales of a new product or service, we consider the same factors we have established through our pricing model and go-to-market strategy. The determination of BESP is made through consultation with and approval by our management. In determining BESP, we rely on certain assumptions and apply significant judgment. As our business offerings evolve over time, we may be required to modify our estimated selling prices in subsequent periods, and the timing of our revenue recognition could be affected.

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 financial statements or tax returns. In addition, deferred tax assets are recorded for the future benefit of utilizing net operating losses and research and development credit carryforwards. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized.

Significant judgment is required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, we consider all available evidence, including past operating results, estimates of future taxable income, and the feasibility of tax planning strategies. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

We apply the authoritative accounting guidance prescribing a threshold and measurement attribute for the financial recognition and measurement of a tax position taken or expected to be taken in a tax return. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step requires us to estimate and measure the tax benefit as the largest amount that is more likely than not to be realized upon ultimate settlement.

Significant judgment is also required in evaluating our uncertain tax positions and determining our provision for income taxes. Although we believe our reserves are reasonable, no assurance can be given that the final tax outcome of these matters will not be different from that which is reflected in our historical income tax provisions and accruals. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences may impact the provision for income taxes in the period in which such determination is made.

Manufacturing Partner and Supplier Liabilities

We outsource most of our manufacturing, repair, and supply chain management operations to our EMS provider, which procures components and assembles our products based on our demand forecasts. These forecasts of future demand are based upon historical trends and analysis from our sales and product management functions as adjusted for overall market conditions. We accrue for costs for manufacturing purchase commitments in excess of our forecasted demand, including costs for excess components or for carrying costs incurred by our manufacturing partners and component suppliers. Actual component usage and product demand may be materially different from our forecast, and could be caused by factors outside of our control, which could have an adverse impact on our results of operations. To date, we have not accrued significant costs associated with this exposure.

Loss Contingencies

We are subject to the possibility of various loss contingencies arising in the ordinary course of business. We accrue for loss contingencies when it is probable that an asset has been impaired or a liability has been incurred and the amount of loss can be reasonably estimated. If we determine that a loss is possible and the range of the loss can be reasonably determined, then we disclose the range of the possible loss. We regularly evaluate current information available to us to determine whether an accrual is required, an accrual should be adjusted or a range of possible loss should be disclosed.

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From time to time, we are involved in disputes, litigation, and other legal actions. However, there are many uncertainties associated with any litigation, and these actions or other third-party claims against us may cause us to incur substantial settlement charges, which are inherently difficult to estimate and could adversely affect our results of operations. The actual liability in any such matters may be materially different from our estimates, which could result in the need to adjust our liability and record additional expenses.

Goodwill, Intangibles, and Other Long-Lived Assets

We make significant estimates, assumptions, and judgments when valuing goodwill and other purchased intangible assets in connection with the initial purchase price allocation of an acquired entity, as well as when evaluating impairment of goodwill and other purchased intangible assets on an ongoing basis. These estimates are based upon a number of factors, including historical experience, market conditions, and information obtained from the management of the acquired company. Critical estimates in valuing certain intangible assets include, but are not limited to, cash flows that an asset is expected to generate in the future, discount rates, the time and expense that would be necessary to recreate the assets, and the profit margin a market participant would receive. The amounts and useful lives assigned to identified intangible assets impacts the amount and timing of future amortization expense.

We evaluate goodwill for impairment on an annual basis in our fourth fiscal quarter or more frequently if we believe impairment indicators exist. We have elected to first assess qualitative factors to determine whether it is more likely than not that the fair value of our reporting unit is less than its carrying amount, including goodwill. The qualitative assessment includes our evaluation of relevant events and circumstances affecting our single reporting unit, including macroeconomic, industry, and market conditions, our overall financial performance, and trends in the market price of our common stock. If qualitative factors indicate that it is more likely than not that our reporting unit's fair value is less than its carrying amount, then we will perform the quantitative impairment test by comparing our reporting unit's carrying amount, including goodwill, to its fair value. If the carrying amount of our reporting unit exceeds its fair value, an impairment loss will be recognized in an amount equal to that excess. To date, the results of our qualitative assessment have indicated that the quantitative goodwill impairment test is not necessary.

We evaluate long-lived assets, such as property, equipment, and purchased intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Such events or changes in circumstances include, but are not limited to, a significant decrease in the fair value of the underlying asset or asset group, a significant decrease in the benefits realized from the acquired assets, difficulty and delays in integrating the business, or a significant change in the operations of the acquired assets or use of an asset or asset group. A long-lived asset is considered impaired if its carrying amount exceeds the estimated future undiscounted cash flows the asset or asset group is expected to generate. Critical estimates in determining whether a long-lived asset is considered impaired include the amount and timing of future cash flows that the asset or asset group is expected to generate. If a long-lived asset is considered to be impaired, the impairment to be recognized is the amount by which the carrying amount of the asset exceeds the fair value of the asset or asset group, which is estimated using a present value technique. Critical estimates in determining the fair value of an asset or asset group and the amount of impairment to recognize include, but are not limited to, the amount and timing of future cash flows that the asset or asset group is expected to generate and the discount rate. Determining the fair value of an asset or asset group is highly judgmental in nature and involves the use of significant estimates and assumptions for market participants. We base our fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. Actual future results may differ from those estimates.

To date, we have not recognized any impairment losses on our goodwill and intangible assets. In fiscal 2017, we recognized an impairment loss of \$20.9 million on property and equipment related to the relocation of our corporate headquarters. We did not recognize any impairment losses on our other long-lived assets prior to fiscal 2017.

Recent Accounting Pronouncements

Refer to "Recently Issued Accounting Pronouncements" in Note 1. Description of Business and Summary of Significant Accounting Policies of Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Exchange Risk

Our sales contracts are primarily denominated in U.S. dollars. A portion of our operating expenses are incurred outside of the United States and are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the euro, British pound, Singapore dollar, Israeli shekel, and Japanese yen. Additionally, fluctuations in

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foreign currency exchange rates may cause us to recognize transaction gains and losses in our statement of operations. The effect of an immediate 10% adverse change in foreign exchange rates on monetary assets and liabilities at July 31, 2017 would not be material to our financial condition or results of operations. As of July 31, 2017, foreign currency transaction gains and losses and exchange rate fluctuations have not been material to our financial statements. We enter into foreign currency derivative contracts with maturities of 12 months or less which we designate as cash flow hedges to manage the foreign currency exchange rate risk associated with our foreign currency denominated expenditures. The effectiveness of our existing hedging transactions and the availability and effectiveness of any hedging transactions we may decide to enter into in the future may be limited and we may not be able to successfully hedge our exposure, which could adversely affect our financial condition and operating results. Refer to Note 4. Derivative Instruments in Part II, Item 8 of this Annual Report on Form 10-K for more information.

As our international operations grow, our risks associated with fluctuation in currency rates will become greater, and we will continue to reassess our approach to managing this risk. In addition, a weakening U.S. dollar can increase the costs of our international expansion and a strengthening U.S. dollar can increase the real cost of our products to our end-customers outside of the United States, leading to delays in the purchase of our products and services. For additional information, see the risk factor entitled “We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and operating results” in Part I, Item 1A of this Annual Report on Form 10-K.

Interest Rate Risk

The primary objectives of our investment activities are to preserve principal, provide liquidity, and maximize income without significantly increasing risk. Some of the securities we invest in are subject to interest risk. To minimize this risk, we maintain our portfolio of cash, cash equivalents, and short-term investments in a variety of securities, including commercial paper, money market funds, U.S. government and agency securities, and corporate debt securities. Due to the short duration and conservative nature of our investment portfolio, a movement of 10% in market interest rates would not have a material impact on our operating results and the total value of the portfolio. The effect of an immediate 10% change in interest rates at July 31, 2017 would not have been material to our operating results and the total value of the portfolio assuming consistent investment levels.

Market Risk and Market Interest Risk

In June 2014, we issued \$575.0 million aggregate principal amount of 0.0% Convertible Senior Notes due 2019 (the “Notes”). We carry this instrument at face value less unamortized discount and unamortized issuance costs on our consolidated balance sheets. As this instrument does not bear interest, we have no financial and economic interest exposure associated with changes in interest rates. However, the fair value of fixed rate instruments fluctuates when interest rates change, and additionally, in the case of the Notes, when the market price of our common stock fluctuates.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Palo Alto Networks, Inc.

We have audited the accompanying consolidated balance sheets of Palo Alto Networks, Inc. as of July 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended July 31, 2017. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Palo Alto Networks, Inc. at July 31, 2017 and 2016, and the consolidated results of its operations and its cash flows for each of the three years in the period ended July 31, 2017, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 1 to the consolidated financial statements, in the second quarter of fiscal 2017, the Company changed its method of accounting for share-based payments as a result of the adoption of the amendments to the FASB Accounting Standards Codification resulting from Accounting Standards Update No. 2016-09, "Improvements to Employee Share-Based Payment Accounting".

As discussed in Note 1 to the consolidated financial statements, in the first quarter of fiscal 2017, the Company elected to change its method of accounting for sales commissions that are incremental and directly related to non-cancelable customer sales contracts from recording an expense when incurred, to deferral and amortization of the sales commissions over the term of the related contracts in proportion to the recognized revenue.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Palo Alto Networks, Inc.'s internal control over financial reporting as of July 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated September 7, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Jose, California
September 7, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Palo Alto Networks, Inc.

We have audited Palo Alto Networks, Inc.'s internal control over financial reporting as of July 31, 2017, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Palo Alto Networks, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

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

In our opinion, Palo Alto Networks, Inc. maintained, in all material respects, effective internal control over financial reporting as of July 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Palo Alto Networks, Inc. as of July 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended July 31, 2017 of Palo Alto Networks, Inc. and our report dated September 7, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Jose, California
September 7, 2017

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management's Report on Internal Control Over Financial Reporting

The management of Palo Alto Networks, Inc. (the "Company") 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 Securities Exchange Act of 1934 for the Company. The Company's internal control over financial reporting is a process designed under the supervision of the Company's principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

The Company's internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. 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 (iii) 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 Consolidated Financial Statements.

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

Management assessed the effectiveness of the Company's internal control over financial reporting as of July 31, 2017, based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control - Integrated Framework (2013 framework). Based on that assessment, management concluded that, as of July 31, 2017, the Company's internal control over financial reporting was effective.

The effectiveness of the Company's internal control over financial reporting as of July 31, 2017, has been audited by Ernst & Young LLP, the independent registered public accounting firm that audits the Company's Consolidated Financial Statements, as stated in their report preceding this report, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of July 31, 2017.

PALO ALTO NETWORKS, INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except per share data)

	July 31,	
	2017	2016 (As Adjusted)
Assets		
Current assets:		
Cash and cash equivalents	\$ 744.3	\$ 734.4
Short-term investments	630.7	551.2
Accounts receivable, net of allowance for doubtful accounts of \$0.7 and \$2.4 at July 31, 2017 and July 31, 2016, respectively	432.1	348.7
Prepaid expenses and other current assets	169.2	139.7
Total current assets	1,976.3	1,774.0
Property and equipment, net	211.1	117.2
Long-term investments	789.3	652.8
Goodwill	238.8	163.5
Intangible assets, net	53.7	44.0
Other assets	169.1	106.7
Total assets	\$ 3,438.3	\$ 2,858.2
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 35.5	\$ 30.2
Accrued compensation	117.5	73.5
Accrued and other liabilities	79.9	39.2
Deferred revenue	968.4	703.9
Total current liabilities	1,201.3	846.8
Convertible senior notes, net	524.7	500.2
Long-term deferred revenue	805.1	536.9
Other long-term liabilities	147.6	79.4
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Preferred stock; \$0.0001 par value; 100.0 shares authorized; none issued and outstanding at July 31, 2017 and July 31, 2016	—	—
Common stock and additional paid-in capital; \$0.0001 par value; 1,000.0 shares authorized; 91.5 and 90.5 shares issued and outstanding at July 31, 2017 and July 31, 2016, respectively	1,599.7	1,515.5
Accumulated other comprehensive income (loss)	(3.4)	1.0
Accumulated deficit	(836.7)	(621.6)
Total stockholders' equity	759.6	894.9
Total liabilities and stockholders' equity	\$ 3,438.3	\$ 2,858.2

See notes to consolidated financial statements.

PALO ALTO NETWORKS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In millions, except per share data)

	Year Ended July 31,		
	2017	2016	2015
		(As Adjusted)	(As Adjusted)
Revenue:			
Product	\$ 709.1	\$ 670.8	\$ 492.7
Subscription and support	1,052.5	707.7	435.4
Total revenue	1,761.6	1,378.5	928.1
Cost of revenue:			
Product	201.4	175.4	131.1
Subscription and support	275.2	194.6	120.4
Total cost of revenue	476.6	370.0	251.5
Total gross profit	1,285.0	1,008.5	676.6
Operating expenses:			
Research and development	347.4	284.2	185.8
Sales and marketing	919.1	743.2	489.0
General and administrative	198.3	138.4	101.6
Total operating expenses	1,464.8	1,165.8	776.4
Operating loss	(179.8)	(157.3)	(99.8)
Interest expense	(24.5)	(23.4)	(22.3)
Other income, net	10.2	8.4	0.2
Loss before income taxes	(194.1)	(172.3)	(121.9)
Provision for income taxes	22.5	20.4	9.4
Net loss	\$ (216.6)	\$ (192.7)	\$ (131.3)
Net loss per share, basic and diluted	\$ (2.39)	\$ (2.21)	\$ (1.61)
Weighted-average shares used to compute net loss per share, basic and diluted	90.6	87.1	81.6

See notes to consolidated financial statements.

PALO ALTO NETWORKS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In millions)

	Year Ended July 31,		
	2017	2016	2015
		(As Adjusted)	(As Adjusted)
Net loss	\$ (216.6)	\$ (192.7)	\$ (131.3)
Other comprehensive income (loss), net of tax:			
Change in unrealized gains (losses) on investments	(4.3)	1.1	—
Change in unrealized gains (losses) on cash flow hedges	(0.1)	—	—
Other comprehensive income (loss)	(4.4)	1.1	—
Comprehensive loss	<u>\$ (221.0)</u>	<u>\$ (191.6)</u>	<u>\$ (131.3)</u>

See notes to consolidated financial statements.

PALO ALTO NETWORKS, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions)

	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of July 31, 2014	79.5	\$ 804.4	\$ (0.1)	\$ (297.6)	\$ 506.7
Net loss	—	—	—	(131.3)	(131.3)
Issuance of common stock in connection with employee equity incentive plans and related excess tax benefit	5.3	50.9	—	—	50.9
Share-based compensation for equity based awards	—	221.3	—	—	221.3
Temporary equity reclassification	—	(87.9)	—	—	(87.9)
Balance as of July 31, 2015	84.8	988.7	(0.1)	(428.9)	559.7
Net loss	—	—	—	(192.7)	(192.7)
Other comprehensive income	—	—	1.1	—	1.1
Issuance of common stock in connection with employee equity incentive plans and related excess tax benefit	5.7	45.8	—	—	45.8
Share-based compensation for equity based awards	—	393.1	—	—	393.1
Temporary equity reclassification	—	87.9	—	—	87.9
Balance as of July 31, 2016	90.5	1,515.5	1.0	(621.6)	894.9
Cumulative-effect adjustment from adoption of new accounting pronouncement	—	2.0	—	1.5	3.5
Net loss	—	—	—	(216.6)	(216.6)
Other comprehensive loss	—	—	(4.4)	—	(4.4)
Issuance of common stock in connection with employee equity incentive plans	4.3	46.3	—	—	46.3
Repurchase and retirement of common stock	(3.3)	(420.1)	—	—	(420.1)
Taxes paid related to net share settlement of equity awards	—	(21.4)	—	—	(21.4)
Share-based compensation for equity based awards	—	477.4	—	—	477.4
Balance as of July 31, 2017	91.5	\$ 1,599.7	\$ (3.4)	\$ (836.7)	\$ 759.6

See notes to consolidated financial statements.

PALO ALTO NETWORKS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Year Ended July 31,		
	2017	2016	2015
		(As Adjusted)	(As Adjusted)
Cash flows from operating activities			
Net loss	\$ (216.6)	\$ (192.7)	\$ (131.3)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Share-based compensation for equity based awards	474.5	392.8	221.3
Depreciation and amortization	59.8	42.8	28.9
Asset impairment related to facility exit	20.9	—	—
Amortization of investment premiums, net of accretion of purchase discounts	2.7	3.0	3.2
Amortization of debt discount and debt issuance costs	24.5	23.4	22.3
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accounts receivable, net	(82.9)	(136.4)	(76.8)
Prepaid expenses and other assets	(48.1)	(31.2)	(69.0)
Accounts payable	5.9	15.1	(3.5)
Accrued compensation	42.8	(6.3)	31.1
Accrued and other liabilities	53.2	21.0	35.6
Deferred revenue	531.8	527.1	291.0
Net cash provided by operating activities	868.5	658.6	352.8
Cash flows from investing activities			
Purchases of investments	(995.9)	(1,037.0)	(987.6)
Proceeds from sales of investments	—	141.9	18.5
Proceeds from maturities of investments	777.4	628.7	339.0
Business acquisitions, net of cash acquired	(90.7)	—	(15.1)
Purchases of property, equipment, and other assets	(163.4)	(72.5)	(33.8)
Net cash used in investing activities	(472.6)	(338.9)	(679.0)
Cash flows from financing activities			
Repurchases of common stock	(411.0)	—	—
Proceeds from sales of shares through employee equity incentive plans	46.4	45.3	48.2
Payments for taxes related to net share settlement of equity awards	(21.4)	—	—
Payment of deferred consideration related to prior year business acquisition	—	(6.4)	—
Net cash provided by (used in) financing activities	(386.0)	38.9	48.2
Net increase (decrease) in cash and cash equivalents	9.9	358.6	(278.0)
Cash and cash equivalents—beginning of period	734.4	375.8	653.8
Cash and cash equivalents—end of period	\$ 744.3	\$ 734.4	\$ 375.8
Supplemental disclosures of cash flow information			
Cash paid for income taxes	\$ 9.0	\$ 7.1	\$ 17.5

See notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Palo Alto Networks, Inc. (the “Company,” “we,” “us,” or “our”), located in Santa Clara, California, was incorporated in March 2005 under the laws of the State of Delaware and commenced operations in April 2005. We offer a next-generation security platform that empowers enterprises, service providers, and government entities to secure their organizations by safely enabling applications running on their networks and by preventing breaches that stem from targeted cyberattacks.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”). The consolidated financial statements include all adjustments necessary for a fair presentation of our annual results. All adjustments are of a normal recurring nature. Certain prior period amounts have been adjusted due to our voluntary change in accounting policy for sales commissions, our early adoption of new accounting guidance related to share-based payments, and our adoption of new accounting guidance related to debt issuance costs. Refer to “Change in Accounting Policy for Sales Commissions” and “Recently Adopted Accounting Pronouncements” below for more information.

Principles of Consolidation

The consolidated financial statements include our accounts and our wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Such management estimates include, but are not limited to the best estimate of selling price for our products and services, share-based compensation, fair value of assets acquired and liabilities assumed in business combinations, the assessment of recoverability of our property and equipment, identified intangibles and goodwill, future taxable income, manufacturing partner and supplier liabilities, and loss contingencies. We base our estimates on historical experience and also on assumptions that we believe are reasonable. Actual results could differ materially from those estimates.

Concentrations

Financial instruments that subject us to concentrations of credit risk consist primarily of cash and cash equivalents, investments, accounts receivable, and derivative contracts.

We invest only in high-quality credit instruments and maintain our cash and cash equivalents and available-for-sale investments in fixed income securities. Management believes that the financial institutions that hold our investments are financially sound and, accordingly, are subject to minimal credit risk. Deposits held with banks may exceed the amount of insurance provided on such deposits.

Our derivative contracts expose us to credit risk to the extent that the counterparties may be unable to meet the terms of the arrangement. We mitigate this credit risk by transacting with major financial institutions with high credit ratings and also enter into master netting arrangements, which permit net settlement of transactions with the same counterparty. We are not required to pledge, and are not entitled to receive, cash collateral related to these derivative instruments. We do not enter into derivative contracts for trading or speculative purposes.

Our accounts receivables are primarily derived from our distributors representing various geographical locations. We perform ongoing credit evaluations and generally do not require collateral on accounts receivable. We maintain an allowance for doubtful accounts for estimated potential credit losses. As of July 31, 2017, four distributors represented 28.5%, 21.2%, 15.0%, and 11.2% of our gross accounts receivable. For fiscal 2017, three distributors represented 32.4%, 23.3%, and 10.0% of our total revenue.

We rely on an electronics manufacturing services provider (“EMS provider”) to assemble most of our products and sole source component suppliers for a certain number of our components.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive income (loss). Our other comprehensive income (loss) includes unrealized gains and losses on available-for-sale investments and unrealized gains and losses on cash flow hedges.

Foreign Currency Transactions

The functional currency of our foreign subsidiaries is the U.S. dollar. Monetary assets and liabilities denominated in foreign currencies have been remeasured into U.S. dollars using the exchange rates in effect at the balance sheet dates. Foreign currency denominated income and expenses have been remeasured using the average exchange rates in effect during each period. Foreign currency remeasurement gains and losses and foreign currency transaction gains and losses are not significant to the financial statements.

Fair Value

We define fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities which are required to be recorded at fair value, we consider the principal or most advantageous market in which to transact and the market-based risk. We apply fair value accounting for all financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. Goodwill, intangible assets, and other long-lived assets are measured at fair value on a nonrecurring basis, only if impairment is indicated. The carrying amounts reported in the consolidated financial statements approximate the fair value for cash and cash equivalents, accounts receivable, accounts payable, and accrued liabilities, due to their short-term nature.

Cash, Cash Equivalents, and Investments

We classify our investments as available-for-sale at the time of purchase since it is our intent that these investments are available for current operations, and include these investments on our consolidated balance sheets as cash equivalents, short-term investments, or long-term investments depending on their maturity.

We consider all highly liquid investments with original maturities of three months or less at date of purchase to be cash equivalents. Investments not considered cash equivalents and with maturities one year or less from the consolidated balance sheet date are classified as short-term investments. Investments with maturities greater than one year from the consolidated balance sheet date are classified as long-term investments.

Investments are considered impaired when a decline in fair value is judged to be other-than-temporary. We consult with our investment managers and consider available quantitative and qualitative evidence in evaluating potential impairment of our investments on a quarterly basis. 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, an impairment charge is recorded and a new cost basis in the investment is established.

Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount, net of allowances for doubtful accounts. The allowance for doubtful accounts is based on our assessment of the collectability of accounts. Management regularly reviews the adequacy of the allowance for doubtful accounts by considering the age of each outstanding invoice, each channel partner's expected ability to pay, and the collection history with each channel partner, when applicable, to determine whether a specific allowance is appropriate. Accounts receivable deemed uncollectible are charged against the allowance for doubtful accounts when identified. As of July 31, 2017 and 2016, the allowance for doubtful accounts activity was not significant.

Derivatives

Our derivative financial instruments are recorded at fair value, on a gross basis, as either assets or liabilities in our consolidated balance sheets. Gains or losses related to the effective portion of our cash flow hedges are recorded as a component of accumulated other comprehensive income ("AOCI") in our consolidated balance sheets and are reclassified into the financial statement line item associated with the underlying hedged transaction in our consolidated statements of operations when the underlying hedged transaction is recognized in earnings. Any gains or losses related to the ineffective portion of our cash flow hedges are recorded immediately in other income (expense), net in our consolidated statements of operations. If it becomes probable that the hedged transaction will not occur, the cumulative unrealized gain or loss is reclassified immediately from AOCI into other income (expense), net. Gains or losses related to non-designated derivative instruments are recognized in other income (expense), net each period until the instrument matures, is terminated, is re-designated as a qualified cash flow hedge, or is sold. Derivatives designated as cash flow hedges are classified in our consolidated statements of cash flows in the same manner as the underlying hedged transaction, primarily within cash flows from operating activities.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, generally three to ten years. Leasehold improvements are depreciated over the shorter of the estimated useful lives of the improvements or the remaining lease term.

Business Combinations

We include the results of operations of the businesses that we acquire as of the respective dates of acquisition. We allocate the fair value of the purchase price of our acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired, based on their estimated fair values. The excess of the purchase price over the fair values of these identifiable assets and liabilities is recorded as goodwill. Additional information existing as of the acquisition date but unknown to us may become known during the remainder of the measurement period, not to exceed 12 months from the acquisition date, which may result in changes to the amounts and allocations recorded.

Intangible Assets

Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets. Acquisition-related in-process research and development represents the fair value of incomplete research and development projects that have not reached technological feasibility as of the date of acquisition. Initially, these assets are not subject to amortization. Assets related to projects that have been completed are transferred to developed technology, which are subject to amortization.

Impairment of Goodwill, Intangible Assets, and Other Long-Lived Assets

Goodwill is evaluated for impairment on an annual basis in the fourth quarter of our fiscal year, and whenever events or changes in circumstances indicate the carrying amount of goodwill may not be recoverable. We have elected to first assess qualitative factors to determine whether it is more likely than not that the fair value of our single reporting unit is less than its carrying amount, including goodwill. If we determine that it is more likely than not that the fair value of our single reporting unit is less than its carrying amount, then the quantitative impairment test will be performed. Under the quantitative impairment test, if the carrying amount of our single reporting unit exceeds its fair value, we will recognize an impairment loss in an amount equal to that excess, but limited to the total amount of goodwill.

We evaluate events and changes in circumstances that could indicate carrying amounts of purchased intangible assets and other long-lived assets may not be recoverable. When such events or changes in circumstances occur, we assess the recoverability of these assets by determining whether or not the carrying amount will be recovered through undiscounted expected future cash flows. If the total of the future undiscounted cash flows is less than the carrying amount of an asset, we record an impairment loss for the amount by which the carrying amount of the asset exceeds the fair value of the asset.

Through July 31, 2017, we have not recognized any impairment losses on our goodwill and intangible assets. During the year ended July 31, 2017, we recognized an impairment loss of \$20.9 million on property and equipment related to the relocation of our corporate headquarters. We did not recognize any impairment losses on our other long-lived assets prior to fiscal 2017.

Manufacturing Partner and Supplier Liabilities

We outsource most of our manufacturing, repair, and supply chain management operations to our EMS provider and payments to it are a significant portion of our cost of product revenue. Although we could be contractually obligated to purchase manufactured products and components, we generally do not own the manufactured products and components. Product title transfers from our EMS provider to us and immediately to our channel partners upon shipment. Our EMS provider assembles our products using design specifications, quality assurance programs, and standards that we establish and it procures components and assembles our products based on our demand forecasts. These forecasts represent our estimates of future demand for our products based upon historical trends and analysis from our sales and product management functions as adjusted for overall market conditions. If the actual component usage and product demand are significantly lower than forecast, we record a liability for manufacturing purchase commitments in excess of our forecasted demand including costs for excess components or for carrying costs incurred by our manufacturing partners and component suppliers. Through July 31, 2017, we have not accrued any significant costs associated with this exposure.

Convertible Senior Notes

On June 30, 2014, we issued \$575.0 million aggregate principal amount of 0.0% Convertible Senior Notes due 2019 (the "Notes"). In accounting for the issuance of the Notes, we separated the Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the Notes as a whole. This difference represents a debt discount that is amortized to interest expense using the effective interest method over the term of the Notes. The equity component is not remeasured

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as long as it continues to meet the conditions for equity classification. In accounting for the transaction costs related to the issuance of the Notes, we allocated the total amount incurred to the liability and equity components using the same proportions as the proceeds from the Notes. Transaction costs attributable to the liability component are netted with the liability component and are being amortized to interest expense using the effective interest method over the term of the Notes. Transaction costs attributable to the equity component are netted with the equity component of the Notes in additional paid-in capital in the consolidated balance sheets. When the Notes are convertible, the net carrying amount of the Notes will be classified as a current liability and a portion of the equity component representing the conversion option will be reclassified to temporary equity in our consolidated balance sheets.

Revenue Recognition

We generate revenue from the sales of hardware and software products, subscriptions, support, and other services primarily through a direct sales force and indirect relationships with channel partners, and, to a lesser extent, directly to end-customers.

Revenue is recognized when all of the following criteria are met:

- **Persuasive Evidence of an Arrangement Exists.** We rely upon non-cancelable sales agreements and purchase orders to determine the existence of an arrangement.
- **Delivery has Occurred.** We use shipping documents or transmissions of product or subscription and support contract registration codes to determine delivery.
- **The Fee is Fixed or Determinable.** We assess whether the fee is fixed or determinable based on the payment terms associated with the transaction.
- **Collectability is Reasonably Assured.** We assess collectability based on credit analysis and payment history.

We recognize product revenue at the time of shipment provided that all other revenue recognition criteria have been met. Our channel partners generally receive an order from an end-customer prior to placing an order with us. In addition, payment from our channel partners is not contingent on the partner's success in sales to end-customers. Our channel partners generally do not stock appliances and only have limited stock rotation rights and no price protection rights. When necessary, we make certain estimates and maintain allowances for sales returns and other programs based on our historical experience. To date, these estimates have not been significant. We recognize subscription and support revenue ratably over the contractual service period, which is typically one to five years. Other services revenue is recognized as the services are rendered.

Most of our arrangements, other than renewals of subscriptions and support contracts, are multiple-element arrangements with a combination of hardware, software, subscriptions, support, and other services. Products, subscriptions, support, and other services generally qualify as separate units of accounting. Our hardware deliverables typically include proprietary operating system software, which together deliver the essential functionality of our products. For multiple-element arrangements, we allocate revenue to each unit of accounting based on an estimated selling price at the arrangement inception. The estimated selling price for each element is based upon the following hierarchy: vendor-specific objective evidence ("VSOE") of selling price, if available, third-party evidence ("TPE") of selling price, if VSOE of selling price is not available, or best estimate of selling price ("BESP"), if neither VSOE of selling price nor TPE of selling price are available. The total arrangement consideration is allocated to each separate unit of accounting using the relative estimated selling prices of each unit based on the aforementioned selling price hierarchy. We limit the amount of revenue recognized for delivered elements to an amount that is not contingent upon future delivery of additional products or services or meeting of any specified performance conditions.

In multiple-element arrangements where software deliverables are included, revenue is allocated to each separate unit of accounting for each of the non-software deliverables and to the software deliverables as a group using the relative estimated selling prices of each of the deliverables in the arrangement based on the aforementioned estimated selling price hierarchy. The arrangement consideration allocated to the software deliverables as a group is then allocated to each software deliverable using the residual method when VSOE of fair value of the undelivered items exists. Under the residual method, the amount of revenue allocated to delivered elements equals the total arrangement consideration less the aggregate fair value of any undelivered elements. In determining VSOE of fair value, we evaluate whether a substantial majority of the historical prices charged for a product or service sold on a standalone basis, as represented by a percentage of list price, fall within a reasonably narrow range. If VSOE of fair value of one or more undelivered items does not exist, revenue from the software portion of the arrangement is deferred and recognized at the earlier of: (i) delivery of those elements or (ii) when fair value can be established unless support is the only undelivered element, in which case, the entire software arrangement fee is recognized ratably over the contractual service period.

We account for multiple agreements with a single partner as one arrangement if the contractual terms and/or substance of those agreements indicate that they may be so closely related that they are, in effect, parts of a single arrangement.

Revenues are reported net of sales taxes. Shipping charges billed to channel partners are included in revenues and related costs are included in cost of revenue. After receipt of a partner order, any amounts billed in excess of revenue recognized are recorded as deferred revenue.

Deferred Commissions

Sales commissions that are incremental and directly related to non-cancelable customer sales contracts are deferred and amortized over the term of the related contract in proportion to the recognized revenue. Refer to “Change in Accounting Policy for Sales Commissions” below for more information.

Advertising Costs

Advertising costs, which are expensed and included in sales and marketing expense when incurred, were \$13.7 million, \$6.6 million, and \$4.8 million, during the years ended July 31, 2017, 2016, and 2015, respectively.

Software Development Costs

Internally developed software includes security software developed to meet our internal needs to provide cloud-based subscription services to our end-customers and business software that we customize to meet our specific operational needs. These capitalized costs consist of internal compensation related costs and external direct costs incurred during the application development stage and will be amortized over a useful life of three to five years.

The costs to develop software that is marketed externally have not been capitalized as we believe our current software development process is essentially completed concurrent with the establishment of technological feasibility. As such, all related software development costs are expensed as incurred and included in research and development expense in our consolidated statements of operations.

Share-Based Compensation

Compensation expense related to share-based transactions, including employee and non-employee director awards, is measured and recognized in the financial statements based on fair value on the grant date. We recognize share-based compensation expense for awards with only service conditions on a straight-line basis over the requisite service period of the related award and recognize share-based compensation expense for awards with performance conditions on a straight-line basis over the requisite service period for each separately vesting portion of the award when it is probable that the performance condition will be achieved. We account for forfeitures of all share-based payment awards when they occur.

Leases

We rent our facilities under operating lease agreements and recognize related rent expense on a straight-line basis over the term of the lease. Some of our lease agreements contain rent holidays, scheduled rent increases, lease incentives, and renewal options. Rent holidays and scheduled rent increases are included in the determination of rent expense to be recorded over the lease term. Lease incentives are recognized as a reduction of rent expense on a straight-line basis over the term of the lease. Renewals are not assumed in the determination of the lease term unless they are deemed to be reasonably assured at the inception of the lease. We begin recognizing rent expense on the date that we obtain the legal right to use and control the leased space.

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 financial statements or tax returns. In addition, deferred tax assets are recorded for the future benefit of utilizing net operating losses and research and development credit carryforwards. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized.

Significant judgment is required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, we consider all available evidence, including past operating results, estimates of future taxable income, and the feasibility of tax planning strategies. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

We apply the authoritative accounting guidance prescribing a threshold and measurement attribute for the financial recognition and measurement of a tax position taken or expected to be taken in a tax return. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step requires us to estimate and measure the tax benefit as the largest amount that is more likely than not to be realized upon ultimate settlement.

We record deferred tax charges in prepaid expenses and other current assets and other assets on our consolidated balance sheets. These deferred tax charges are amortized on a straight-line basis over the life of the associated assets as a component of provision for income taxes in our consolidated statements of operations.

Loss Contingencies

We are subject to the possibility of various loss contingencies arising in the ordinary course of business. In determining loss contingencies, we consider the likelihood of loss or impairment of an asset, or the incurrence of a liability, as well as our ability to reasonably estimate the amount of loss. An estimated loss contingency is accrued when it is probable that an asset has been impaired or a liability has been incurred and the amount of loss can be reasonably estimated. If we determine that a loss is possible and the range of the loss can be reasonably determined, then we disclose the range of the possible loss. We regularly evaluate current information available to us to determine whether an accrual is required, an accrual should be adjusted or a range of possible loss should be disclosed.

Change in Accounting Policy for Sales Commissions

Effective August 1, 2016, we voluntarily changed our accounting policy for sales commissions that are incremental and directly related to non-cancelable customer sales contracts from recording an expense when incurred to deferral and amortization of the sales commissions over the term of the related contract in proportion to the recognized revenue. We believe this change in accounting policy is preferable as the direct and incremental commission costs are closely related to the associated revenue, and therefore should be deferred and recognized as an expense over the same period that the related revenue is recognized.

Short-term deferred commissions are included in prepaid expenses and other current assets, while long-term deferred commissions are included in other assets in our consolidated balance sheets. The amortization of deferred commissions is included in sales and marketing expense in our consolidated statements of operations.

The adoption of this accounting policy change has been applied retrospectively to all prior periods presented in this Annual Report on Form 10-K, in which the cumulative effect of the change of \$38.1 million has been reflected in accumulated deficit as of August 1, 2014, the beginning of the earliest period presented.

The following tables present the changes to financial statement line items as a result of the accounting policy change for the periods presented in our consolidated financial statements (in millions, except per share data):

	July 31, 2017			July 31, 2016		
	Computed under Prior Method	Impact of Commission Adjustment	As Reported	As Previously Reported	Impact of Commission Adjustment	As Adjusted
Consolidated Balance Sheets						
Prepaid expenses and other current assets	\$ 95.8	\$ 73.4	\$ 169.2	\$ 84.8	\$ 54.9	\$ 139.7
Other assets	97.8	71.3	169.1	64.6	50.1	114.7
Accumulated deficit	\$ (981.4)	\$ 144.7	\$ (836.7)	\$ (726.6)	\$ 105.0	\$ (621.6)

	Year Ended July 31, 2017		
	Computed under Prior Method	Impact of Commission Adjustment	As Reported
Consolidated Statements of Operations			
Sales and marketing	\$ 958.4	\$ (39.3)	\$ 919.1
Operating loss	(219.1)	39.3	(179.8)
Provision for income taxes	22.9	(0.4)	22.5
Net loss	\$ (256.3)	\$ 39.7	\$ (216.6)
Net loss per share, basic and diluted	\$ (2.83)	\$ 0.44	\$ (2.39)
Weighted-average shares used to compute net loss per share, basic and diluted	90.6	—	90.6
Consolidated Statements of Comprehensive Loss			
Net loss	\$ (256.3)	\$ 39.7	\$ (216.6)
Comprehensive loss	\$ (260.7)	\$ 39.7	\$ (221.0)

	Year Ended July 31, 2016		
	As Previously Reported	Impact of Commission Adjustment	As Adjusted
Consolidated Statements of Operations			
Sales and marketing	\$ 776.0	\$ (32.8)	\$ 743.2
Operating loss	(190.1)	32.8	(157.3)
Provision for income taxes	20.8	(0.4)	20.4
Net loss	\$ (225.9)	\$ 33.2	\$ (192.7)
Net loss per share, basic and diluted	\$ (2.59)	\$ 0.38	\$ (2.21)
Weighted-average shares used to compute net loss per share, basic and diluted	87.1	—	87.1
Consolidated Statements of Comprehensive Loss			
Net loss	\$ (225.9)	\$ 33.2	\$ (192.7)
Comprehensive loss	\$ (224.8)	\$ 33.2	\$ (191.6)
Year Ended July 31, 2015			
	As Previously Reported	Impact of Commission Adjustment	As Adjusted
Consolidated Statements of Operations			
Sales and marketing	\$ 522.7	\$ (33.7)	\$ 489.0
Operating loss	(133.5)	33.7	(99.8)
Provision for income taxes	9.4	—	9.4
Net loss	\$ (165.0)	\$ 33.7	\$ (131.3)
Net loss per share, basic and diluted	\$ (2.02)	\$ 0.41	\$ (1.61)
Weighted-average shares used to compute net loss per share, basic and diluted	81.6	—	81.6
Consolidated Statements of Comprehensive Loss			
Net loss	\$ (165.0)	\$ 33.7	\$ (131.3)
Comprehensive loss	\$ (165.0)	\$ 33.7	\$ (131.3)

This change in accounting policy does not affect our balance of cash and cash equivalents and, as a result, did not change net cash flows from operating, investing, or financing activities, or materially impact any individual line items presented in our consolidated statement of cash flows for the years ended July 31, 2016 and 2015.

Recently Adopted Accounting Pronouncements

Goodwill Impairment

In January 2017, the Financial Accounting Standards Board (“FASB”) issued authoritative guidance simplifying the subsequent measurement of goodwill. The standard eliminates Step 2 of the current goodwill impairment test, which requires companies to determine the implied fair value of goodwill when measuring the amount of impairment loss. Under the new standard, goodwill impairment will be measured as the amount by which a reporting unit’s carrying value exceeds its fair value, with the loss limited to the total amount of goodwill allocated to that reporting unit. We elected to early adopt the standard in our fourth quarter of fiscal 2017 on a prospective basis. Our adoption of this standard did not have an impact on our consolidated financial statements.

Share-Based Payment Accounting

In March 2016, the FASB issued authoritative guidance simplifying several aspects of the accounting for employee share-based payment transactions. The new standard requires us to recognize excess tax benefits or deficiencies as income tax expense or benefit in the period in which they occur, rather than additional paid-in capital, and also requires us to recognize excess tax benefits regardless of whether the benefit reduces taxes payable in the current period. In addition, excess tax benefits should be classified as an operating activity, along with other income tax cash flows, instead of a financing activity in our consolidated statements of cash flows. The

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standard also allows us to make an accounting policy election to account for forfeitures of share-based payment awards when they occur, rather than estimate expected forfeitures.

We elected to early adopt the standard in our second quarter of fiscal 2017, which required us to reflect any adjustments related to the adoption as of the beginning of the fiscal year. The impact of the adoption on our consolidated financial statements was as follows:

- *Income tax accounting* - We adopted the guidance related to the timing of when excess tax benefits are recognized on a modified retrospective basis. As a result, we recorded the cumulative effect of the change as a \$3.5 million reduction to accumulated deficit as of August 1, 2016, to reflect the recognition of excess tax benefits in prior years, with a corresponding adjustment to deferred tax assets and long-term tax liabilities. We adopted the guidance related to the recognition of excess tax benefits and deficiencies as income tax expense or benefit on a prospective basis.
- *Cash flow presentation of excess tax benefits* - We elected to adopt the guidance related to the presentation of excess tax benefits in our consolidated statements of cash flows on a retrospective basis, which increased net cash provided by operating activities by \$0.5 million and \$2.5 million for the years ended July 31, 2016 and 2015, respectively, with corresponding decreases to net cash provided by financing activities.
- *Forfeitures* - We elected to account for forfeitures when they occur and adopted this change on a modified retrospective basis. As a result, we recorded the cumulative effect of the change as a \$2.0 million increase to accumulated deficit as of August 1, 2016.

The adoption of the standard also impacted our previously reported results for the three months ended October 31, 2016, as presented in the following tables (in millions, except per share data):

	October 31, 2016		
	As Previously Reported	Impact of Adoption	As Adjusted
Consolidated Balance Sheets			
Other assets	\$ 102.0	\$ 1.7	\$ 103.7
Other long-term liabilities	85.8	(5.6)	80.2
Common stock and additional paid-in capital	1,542.2	0.9	1,543.1
Accumulated deficit	\$ (683.4)	\$ 6.4	\$ (677.0)

	Three Months Ended October 31, 2016		
	As Previously Reported	Impact of Adoption	As Adjusted
Consolidated Statements of Operations			
Total cost of revenue ⁽¹⁾	\$ 101.3	\$ (0.1)	\$ 101.2
Total operating expenses ⁽¹⁾	346.7	(0.8)	345.9
Provision for income taxes	8.4	(4.0)	4.4
Net loss	\$ (61.8)	\$ 4.9	\$ (56.9)
Net loss per share, basic and diluted	\$ (0.69)	\$ 0.06	\$ (0.63)
Weighted-average shares used to compute net loss per share, basic and diluted	89.8	—	89.8

Consolidated Statements of Comprehensive Loss			
Net loss	\$ (61.8)	\$ 4.9	\$ (56.9)
Comprehensive loss	\$ (64.7)	\$ 4.9	\$ (59.8)

Consolidated Statements of Cash Flows			
Net cash provided by operating activities	\$ 203.3	\$ 0.2	\$ 203.5
Net cash used in financing activities	\$ (27.1)	\$ (0.2)	\$ (27.3)

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- (1) Adjustments consist of share-based compensation, which was impacted by our policy election to account for forfeitures when they occur. The impact of adoption on each cost and expense line item within these subtotals was not significant.

Cloud Computing Arrangements

In April 2015, the FASB issued new authoritative guidance on fees paid in a cloud computing arrangement. The standard requires customers in a cloud computing arrangement to evaluate whether the arrangement includes a software license. If the arrangement includes a software license, the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If the arrangement does not include a software license, the customer should account for the arrangement as a service contract. We adopted the standard in our first quarter of fiscal 2017 on a prospective basis. Our adoption of this standard did not have a material impact on our consolidated financial statements.

Debt Issuance Costs

In April 2015, the FASB issued updated authoritative guidance to simplify the presentation of debt issuance costs. The amended standard requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of the related debt liability, consistent with the presentation of debt discounts, instead of being presented as an asset. We adopted the standard in our first quarter of fiscal 2017 on a retrospective basis, and as a result, we reduced other assets and convertible senior notes, net by \$8.0 million on our consolidated balance sheets as of July 31, 2016.

Recently Issued Accounting Pronouncements

Business Combinations - Definition of a Business

In January 2017, the FASB issued authoritative guidance clarifying the definition of a business to assist companies with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The standard is effective for us for our first quarter of fiscal 2019 and will be applied on a prospective basis. Early adoption is permitted. We do not expect the adoption of the standard will have a material impact on our consolidated financial statements.

Statement of Cash Flows - Restricted Cash

In November 2016, the FASB issued authoritative guidance on the presentation of restricted cash or restricted cash equivalents in the statement of cash flows. Under the new standard, restricted cash or restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The standard is effective for us for our first quarter of fiscal 2019 and will be applied on a retrospective basis. Early adoption is permitted. We do not expect the adoption of the standard will have a material impact on our consolidated financial statements because our restricted cash balance has not been material.

Income Taxes - Intra-Entity Asset Transfers

In October 2016, the FASB issued authoritative guidance requiring the recognition of income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The standard is effective for us for our first quarter of fiscal 2019 and will be applied on a modified retrospective basis. Early adoption is permitted. We plan to adopt the standard in our first quarter of fiscal 2019 and are currently evaluating whether this standard will have a material impact on our consolidated financial statements.

Statement of Cash Flows - Classification of Certain Cash Receipts and Cash Payments

In August 2016, the FASB issued new authoritative guidance addressing eight specific cash flow issues with the objective of reducing the existing diversity in practice in how certain transactions are presented and classified in the statement of cash flows. The standard is effective for us for our first quarter of fiscal 2019 and will be applied on a retrospective basis. Early adoption is permitted. We do not expect the adoption of the standard will have a material impact on our consolidated financial statements.

Financial Instruments - Credit Losses

In June 2016, the FASB issued new authoritative guidance on the accounting for credit losses on most financial assets and certain financial instruments. The standard replaces the existing incurred loss model with an expected credit loss model for financial assets measured at amortized cost, including trade receivables, and requires that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down. The standard is effective for us for our first quarter of fiscal 2021 and will be applied on a modified retrospective basis. Early adoption is permitted beginning our first quarter of fiscal 2020. We are currently evaluating whether this standard will have a material impact on our consolidated financial statements.

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Leases

In February 2016, the FASB issued new authoritative guidance on lease accounting. Among its provisions, the standard requires lessees to recognize right-of-use assets and lease liabilities on the balance sheet for operating leases and also requires additional qualitative and quantitative disclosures about lease arrangements. The standard is effective for us for our first quarter of fiscal 2020 and will be applied on a modified retrospective basis, with the option to elect certain practical expedients. Early adoption is permitted. We are currently evaluating whether this standard will have a material impact on our consolidated financial statements.

Revenue Recognition

In May 2014, the FASB issued new authoritative guidance on revenue from contracts with customers. The new standard provides principles for recognizing revenue for the transfer of promised goods or services to customers with the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard also requires significantly expanded disclosures about revenue recognition. The FASB subsequently delayed the effective date of the standard by one year and as a result, the standard is now effective for us for our first quarter of fiscal 2019 using either of two methods: (i) retrospective to each prior reporting period presented with the option to elect certain practical expedients as defined within the guidance (“full retrospective method”); or (ii) retrospective with the cumulative effect of initially applying the guidance recognized at the date of initial application and providing certain additional disclosures as defined per the guidance (“modified retrospective method”). Early adoption as of the original effective date is permitted.

We do not plan to early adopt the new standard, and accordingly, we will adopt the standard in our first quarter of fiscal 2019. We currently plan to adopt using the full retrospective method, however, our ability to apply the full retrospective method is dependent on system readiness and the completion of our analysis of information necessary to restate prior period financial statements.

We are continuing to evaluate the impact of the new standard on our accounting policies, processes, internal controls over financial reporting, and system requirements, and have assigned cross-functional internal resources and engaged third-party service providers to assist in our evaluation and system implementation. Furthermore, we have made and will continue to make investments in systems to enable timely and accurate reporting under the new standard.

We are also continuing to evaluate the impact the standard will have on our consolidated financial statements, including reviewing the provisions of our customer contracts and identifying performance obligations under the requirements of the new standard and comparing to our current accounting policies and practices. Although we have not yet determined whether the effect will be material, we believe the new standard will impact our accounting for revenue arrangements in the following areas:

- removal of the current limitation on contingent revenue may result in revenue being recognized earlier for certain contracts;
- term license revenue associated with our virtual firewalls will be recognized upfront;
- allocation of revenue related to software due to the removal of the residual method of revenue recognition; and
- amortization period for deferred commissions.

We will continue to assess the new standard along with industry trends and additional interpretive guidance, and may adjust our implementation plan accordingly.

2. Fair Value Measurements

We categorize assets and liabilities recorded or disclosed at fair value on our consolidated balance sheets based upon the level of judgment associated with inputs used to measure their fair value. The categories are as follows:

- Level 1—Inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the assets or liabilities, either directly or indirectly through market corroboration, for substantially the full term of the financial instruments.
- Level 3—Inputs are unobservable inputs based on our own assumptions used to measure assets and liabilities at fair value. The inputs require significant management judgment or estimation.

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The following table presents the fair value of our financial assets and liabilities measured at fair value on a recurring basis using the above input categories as of July 31, 2017 and July 31, 2016 (in millions):

	July 31, 2017				July 31, 2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Short-term investments:								
Commercial paper	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 3.0	\$ —	\$ 3.0
Corporate debt securities	—	159.4	—	159.4	—	121.4	—	121.4
U.S. government and agency securities	—	471.3	—	471.3	—	426.8	—	426.8
Total short-term investments	—	630.7	—	630.7	—	551.2	—	551.2
Long-term investments:								
Certificates of deposit	—	5.4	—	5.4	—	5.4	—	5.4
Corporate debt securities	—	186.5	—	186.5	—	166.1	—	166.1
U.S. government and agency securities	—	597.4	—	597.4	—	481.3	—	481.3
Total long-term investments	—	789.3	—	789.3	—	652.8	—	652.8
Total assets measured at fair value	\$ —	\$ 1,420.0	\$ —	\$ 1,420.0	\$ —	\$ 1,204.0	\$ —	\$ 1,204.0

As of July 31, 2017, we determined that certain property and equipment related to our prior corporate headquarters were impaired. In connection with our planned relocation to our new corporate headquarters, we assessed the recoverability of certain leasehold improvements and other long-lived assets associated with our previous headquarter facilities and determined that the carrying amount of these assets exceeded their fair value of \$4.2 million. The resulting impairment loss of \$20.9 million was recorded as general and administrative expense in our consolidated statements of operations during the year ended July 31, 2017. We calculated the fair value of the leasehold improvements and other long-lived assets based on estimated future discounted cash flows and classified the fair value as a Level 3 measurement due to the significance of unobservable inputs, which included the amount and timing of estimated sublease rental receipts that we could reasonably obtain over the remaining lease term and the discount rate. Refer to Note 9. Commitments and Contingencies for more information on the relocation of our corporate headquarters.

Refer to Note 8. Convertible Senior Notes for the carrying amount and estimated fair value of our convertible senior notes as of July 31, 2017 and July 31, 2016.

3. Investments

The following tables summarize the amortized cost, unrealized gains and losses, and fair value of our available-for-sale investments as of July 31, 2017 and July 31, 2016 (in millions):

	July 31, 2017			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Certificates of deposit	\$ 5.4	\$ —	\$ —	\$ 5.4
Corporate debt securities	346.1	0.3	(0.5)	345.9
U.S. government and agency securities	1,071.2	0.1	(2.6)	1,068.7
Total	\$ 1,422.7	\$ 0.4	\$ (3.1)	\$ 1,420.0

	July 31, 2016			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
Certificates of deposit	\$ 5.4	\$ —	\$ —	\$ 5.4
Commercial paper	3.0	—	—	3.0
Corporate debt securities	286.7	0.8	—	287.5
U.S. government and agency securities	907.3	0.9	(0.1)	908.1
Total	\$ 1,202.4	\$ 1.7	\$ (0.1)	\$ 1,204.0

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Unrealized losses related to these investments are due to interest rate fluctuations as opposed to credit quality. In addition, we do not intend to sell and it is not likely that we would be required to sell these investments before recovery of their amortized cost basis, which may be at maturity. As a result, there were no other-than-temporary impairments for these investments at July 31, 2017 and 2016.

We received proceeds of \$141.9 million and \$18.5 million from sales of investments during the years ended July 31, 2016 and 2015, respectively. We did not sell any investments during the year ended July 31, 2017. We use the specific identification method to determine the cost basis of investments sold.

The following table summarizes the amortized cost and fair value of our available-for-sale investments as of July 31, 2017, by contractual years-to-maturity (in millions):

	Amortized Cost	Fair Value
Due within one year	\$ 631.6	\$ 630.7
Due between one and three years	791.1	789.3
Total	<u>\$ 1,422.7</u>	<u>\$ 1,420.0</u>

4. Derivative Instruments

As a global business, we are exposed to currency exchange rate risk. Substantially all of our revenue is transacted in U.S. dollars, however, a portion of our operating expenditures are incurred outside of the United States and are denominated in foreign currencies, making them subject to fluctuations in foreign currency exchange rates. We enter into foreign currency derivative contracts with maturities of 12 months or less which we designate as cash flow hedges to manage the foreign currency exchange rate risk associated with these expenditures.

Beginning August 2016, we entered into forward contracts to hedge the foreign currency exchange rate risk arising from our foreign currency denominated expenditures to be incurred during the year ended July 31, 2017. All of these foreign currency forward contracts matured and were settled during the year ended July 31, 2017. Accordingly, we did not have any forward contracts outstanding as of July 31, 2017. During the year ended July 31, 2017, both unrealized losses recognized in AOCI related to the effective portion of our cash flow hedges and amounts reclassified into earnings were not material.

5. Acquisitions

Fiscal 2017

LightCyber Ltd.

On February 27, 2017, we completed our acquisition of all outstanding shares of LightCyber Ltd. ("LightCyber"), a privately-held cybersecurity company, for total consideration of \$103.1 million in cash. The acquisition expands the functionality of our next-generation security platform with the addition of LightCyber's behavioral analytics technology.

We have accounted for this transaction as a business combination and allocated the purchase consideration to assets acquired and liabilities assumed based on their preliminary estimated fair values, as presented in the following table (in millions):

	Amount
Cash	\$ 12.4
Goodwill	75.3
Identified intangible assets	19.5
Net liabilities assumed	(4.1)
Total	<u>\$ 103.1</u>

Additional information, such as that related to income tax and other contingencies, existing as of the acquisition date but unknown to us may become known during the remainder of the measurement period, not to exceed 12 months from the acquisition date, which may result in changes to the amounts and allocations recorded.

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The following table presents details of the identified intangible assets acquired (in millions, except years):

	Fair Value	Estimated Useful Life
Developed technology	\$ 16.6	8 years
Customer relationships	2.9	8 years
Total	\$ 19.5	

Goodwill generated from this business combination is primarily attributable to the assembled workforce and expected synergies from integrating the LightCyber technology into our platform. The goodwill is not deductible for income tax purposes.

LightCyber's operating results are included in our consolidated statements of operations from the date of acquisition. Pro forma results of operations have not been presented as the impact to our consolidated statements of operations is not material.

Fiscal 2015

CirroSecure, Inc.

On May 22, 2015, we completed our acquisition of CirroSecure, Inc. ("CirroSecure"), a privately-held cybersecurity company. The acquisition expands the functionality of our next-generation security platform by providing additional security for SaaS applications. We accounted for this transaction as a business combination in exchange for total cash consideration of \$15.3 million.

We allocated the purchase consideration to the assets acquired and liabilities assumed based on their estimated fair values and as a result, recorded a developed technology intangible asset of \$11.0 million, goodwill of \$8.1 million, and net liabilities of \$3.8 million in our consolidated balance sheets as of the acquisition date. The developed technology is being amortized over an estimated useful life of seven years. The goodwill is attributable to the assembled workforce and expected post-acquisition synergies and is not deductible for income tax purposes.

6. Goodwill and Intangible Assets

Goodwill

The following table presents details of our goodwill during the year ended July 31, 2017 (in millions):

	Amount
Balance as of July 31, 2016	\$ 163.5
Goodwill acquired	75.3
Balance as of July 31, 2017	\$ 238.8

Through July 31, 2017, we have not recognized any impairment losses on our goodwill.

Purchased Intangible Assets

The following table presents details of our purchased intangible assets as of July 31, 2017 and July 31, 2016 (in millions):

	July 31,					
	2017			2016		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Developed technology	\$ 69.7	\$ (23.8)	\$ 45.9	\$ 53.1	\$ (15.4)	\$ 37.7
Acquired intellectual property	8.9	(3.8)	5.1	8.9	(2.9)	6.0
Customer relationships	2.9	(0.2)	2.7	—	—	—
Other	2.4	(2.4)	—	2.4	(2.1)	0.3
Total purchased intangible assets	\$ 83.9	\$ (30.2)	\$ 53.7	\$ 64.4	\$ (20.4)	\$ 44.0

We recognized amortization expense of \$9.8 million, \$9.4 million, and \$7.9 million for the years ended July 31, 2017, 2016, and 2015, respectively.

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The following table summarizes our estimated future amortization expense of intangible assets as of July 31, 2017 (in millions):

	<u>Amount</u>	
Years ending July 31:		
2018	\$	10.7
2019		10.6
2020		10.6
2021		8.9
2022		4.4
2023 and thereafter		8.5
Total future amortization expense	\$	<u>53.7</u>

7. Property and Equipment

The following table presents details of our property and equipment, net as of July 31, 2017 and July 31, 2016 (in millions):

	<u>July 31,</u>	
	<u>2017</u>	<u>2016</u>
Computers, equipment, and software	\$ 156.6	\$ 102.7
Leasehold improvements	110.1	58.0
Demonstration units	26.3	20.1
Furniture and fixtures	20.4	14.6
Total property and equipment	313.4	195.4
Less: accumulated depreciation	(102.3)	(78.2)
Total property and equipment, net	<u>\$ 211.1</u>	<u>\$ 117.2</u>

We recognized depreciation expense of \$48.6 million, \$33.1 million, and \$20.3 million related to property and equipment during the years ended July 31, 2017, 2016, and 2015, respectively. During the year ended July 31, 2017, we impaired certain property and equipment related to the relocation of our corporate headquarters and recognized a loss of \$20.9 million in general and administrative expense on our consolidated statements of operations. Refer to Note 9. Commitments and Contingencies for more information.

8. Convertible Senior Notes

Convertible Senior Notes

On June 30, 2014, we issued \$575.0 million aggregate principal amount of 0.0% Convertible Senior Notes due 2019 (the "Notes"). The Notes are governed by an indenture between us, as the issuer, and U.S. Bank National Association, as Trustee (the "Indenture"). The Notes are unsecured, unsubordinated obligations that do not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries. The Notes mature on July 1, 2019 unless converted or repurchased in accordance with their terms prior to such date. We cannot redeem the Notes prior to maturity.

The Notes are convertible for up to 5.2 million shares of our common stock at an initial conversion rate of approximately 9.068 shares of common stock per \$1,000 principal amount, which is equal to an initial conversion price of approximately \$110.28 per share of common stock, subject to adjustment. Holders of the Notes may surrender their Notes for conversion at their option at any time prior to the close of business on the business day immediately preceding January 1, 2019, only under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ending on October 31, 2014 (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price for the Notes on each applicable trading day (the "sale price condition");
- during the five business day period after any five consecutive trading day period, in which the trading price per \$1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the Notes on each such trading day; or

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- upon the occurrence of specified corporate events.

On or after January 1, 2019, holders may convert all or any portion of their Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the foregoing conditions. Upon conversion, holders will receive cash equal to the aggregate principal amount of the Notes to be converted, and, at our election, cash and/or shares of our common stock for any amounts in excess of the aggregate principal amount of the Notes being converted.

The conversion price will be subject to adjustment in some events. Holders of the Notes who convert their Notes in connection with certain corporate events that constitute a “make-whole fundamental change” per the Indenture are, under certain circumstances, entitled to an increase in the conversion rate. Additionally, upon the occurrence of a corporate event that constitutes a “fundamental change” per the Indenture, holders of the Notes may require us to repurchase for cash all or a portion of the Notes at a purchase price equal to 100% of the principal amount of the Notes plus accrued and unpaid contingent interest.

The sale price condition was not met during the fiscal quarters ended July 31, 2017 and July 31, 2016. Since the Notes were not convertible, the net carrying amount of the Notes was classified as a long-term liability and the equity component was included in additional paid-in capital in our consolidated balance sheets as of July 31, 2017 and July 31, 2016.

The following table sets forth the components of the Notes as of July 31, 2017 and July 31, 2016 (in millions):

	July 31,	
	2017	2016
Liability:		
Principal	\$ 575.0	\$ 575.0
Less: debt discount and debt issuance costs, net of amortization	50.3	74.8
Net carrying amount	<u>\$ 524.7</u>	<u>\$ 500.2</u>
Equity	<u>\$ 109.8</u>	<u>\$ 109.8</u>

The total estimated fair value of the Notes was \$747.5 million and \$761.9 million at July 31, 2017 and July 31, 2016, respectively. The fair value was determined based on the closing trading price per \$100 of the Notes as of the last day of trading for the period. We consider the fair value of the Notes at July 31, 2017 and July 31, 2016 to be a Level 2 measurement. The fair value of the Notes is primarily affected by the trading price of our common stock and market interest rates. As of July 31, 2017, the if-converted value of the Notes exceeded its principal amount by \$137.7 million.

The following table sets forth interest expense recognized related to the Notes (dollars in millions):

	Year Ended July 31,		
	2017	2016	2015
Amortization of debt discount	\$ 22.0	\$ 21.1	\$ 20.2
Amortization of debt issuance costs	2.5	2.3	2.1
Total interest expense recognized	<u>\$ 24.5</u>	<u>\$ 23.4</u>	<u>\$ 22.3</u>
Effective interest rate of the liability component	<u>4.8%</u>	<u>4.8%</u>	<u>4.8%</u>

Note Hedges

To minimize the impact of potential economic dilution upon conversion of the Notes, we entered into convertible note hedge transactions (the “Note Hedges”) with respect to our common stock concurrent with the issuance of the Notes. The Note Hedges cover up to 5.2 million shares of our common stock at a strike price per share that corresponds to the initial conversion price of the Notes, which are also subject to adjustment, and are exercisable upon conversion of the Notes. The Note Hedges will expire upon maturity of the Notes. The Note Hedges are separate transactions and are not part of the terms of the Notes. Holders of the Notes will not have any rights with respect to the Note Hedges. The shares receivable related to the Note Hedges are excluded from the calculation of diluted earnings per share as they are antidilutive. We paid an aggregate amount of \$111.0 million for the Note Hedges, which is included in additional paid-in capital in our consolidated balance sheets.

Warrants

Separately, but concurrently with our issuance of the Notes, we entered into transactions whereby we sold warrants (the “Warrants”) to acquire up to 5.2 million shares of our common stock at a strike price of approximately \$137.85 per share, subject to

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adjustments. The shares issuable under the Warrants will be included in the calculation of diluted earnings per share when the average market value per share of our common stock for the reporting period exceeds the strike price of the Warrants. The Warrants are separate transactions and are not part of the Notes or Note Hedges, and are not remeasured through earnings each reporting period. Holders of the Notes and Note Hedges will not have any rights with respect to the Warrants. We received aggregate proceeds of \$78.3 million from the sale of the Warrants, which is included in additional paid-in capital in our consolidated balance sheets.

9. Commitments and Contingencies

Leases

We lease our facilities under various non-cancelable operating leases, which expire through the year ending July 31, 2028.

In May 2015, we entered into two lease agreements for a total of approximately 631,000 square feet of corporate office space in Santa Clara, California, which serves as our new corporate headquarters. The leases commenced in August 2017 and expire in July 2028. In October 2015, we entered into a third lease agreement for approximately 310,000 square feet of additional office space, which is also part of our new corporate headquarters. This lease will commence in April 2018 and expires in July 2028. The leases contain a rent holiday period, scheduled rent increases, lease incentives, and renewal options which allow the lease terms to be extended through July 2046. Rental payments under the three lease agreements are approximately \$373.8 million over the lease term.

In May 2015, we also entered into a lease agreement for approximately 122,000 square feet of space in Santa Clara, California to serve as an extension of our previous corporate headquarters. The lease commenced in February 2016 and expires in April 2021. The lease contains scheduled rent increases, lease incentives, and renewal options which allow the lease term to be extended through July 2046. Rental payments under the lease agreement is approximately \$23.1 million over the lease term.

In September 2012, we entered into two lease agreements for a total of approximately 300,000 square feet of space in Santa Clara, California, which served as our previous corporate headquarters through August 2017, when we relocated to our new corporate campus. The leases commenced in November 2012 and August 2013, expire in July 2023, and allow for two separate five-year options to extend the lease term. Payments under these leases are approximately \$94.3 million over the lease term. Each lease has a rent holiday, which was included in the determination of rent expense.

In July 2013, we entered into a 51-month sub-lease agreement for our prior corporate headquarters with a commencement date of January 2014. Net proceeds from this sub-lease are approximately \$10.7 million over the lease term.

We recognized rent expense of \$35.9 million, \$20.2 million, and \$15.4 million for the years ended July 31, 2017, 2016, and 2015, respectively. Rent expense is recognized on a straight-line basis over the term of the lease.

The following table presents details of the aggregate future non-cancelable minimum rental payments under our operating leases as of July 31, 2017 (in millions):

	Amount
Years ending July 31:	
2018	\$ 31.0
2019	50.7
2020	60.1
2021	57.3
2022	53.9
2023 and thereafter	264.5
Committed gross lease payments	517.5
Less: proceeds from sublease rental	2.1
Net operating lease obligation	\$ 515.4

Facility Exit Costs

To support the growth of our business, in the fourth quarter of fiscal 2017, we committed to plans to relocate our corporate headquarters and sublet our previous headquarter facilities. In connection with the planned relocation, we determined, as of July 31, 2017, that certain leasehold improvements and other long-lived assets associated with our previous facilities were impaired and recognized a loss of \$20.9 million in general and administrative expense in our consolidated statements of operations during the year ended July 31, 2017. Refer to Note 2. Fair Value Measurements for more information on our impairment assessment.

We exited our previous headquarter facilities and relocated to our new corporate campus in August 2017. Refer to Note 18. Subsequent Events for more information.

Manufacturing Purchase Commitments

Our EMS provider procures components and assembles our products based on our forecasts. These forecasts are based on estimates of demand for our products primarily for the next 12 months, which are in turn based on historical trends and an analysis from our sales and product management organizations, adjusted for overall market conditions. In order to reduce manufacturing lead times and plan for adequate supply, we may issue non-cancelable orders for products and components to our manufacturing partners or component suppliers. As of July 31, 2017, our purchase commitments under such orders were \$104.1 million, of which \$5.6 million represent long-term purchase commitments through the year ending July 31, 2019, excluding obligations under contracts that we can cancel without a significant penalty.

Litigation

We are subject to legal proceedings, claims, and litigation arising in the ordinary course of business, including intellectual property litigation. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. We accrue for contingencies when we believe that a loss is probable and that we can reasonably estimate the amount of any such loss.

To the extent there is a reasonable possibility that a loss exceeding amounts already recognized may be incurred and the amount of such additional loss would be material, we will either disclose the estimated additional loss or state that such an estimate cannot be made. As of July 31, 2017, we have not recorded any significant accruals for loss contingencies associated with such legal proceedings, determined that an unfavorable outcome is probable or reasonably possible, or determined that the amount or range of any possible loss is reasonably estimable.

Indemnification

Under the indemnification provisions of our standard sales related contracts, we agree to defend our end-customers against third-party claims asserting infringement of certain intellectual property rights, which may include patents, copyrights, trademarks, or trade secrets, and to pay judgments entered on such claims. Our exposure under these indemnification provisions is generally limited to payments made to us for the alleged infringing products over the preceding twelve months under the agreement. However, certain agreements include indemnification provisions that could potentially expose us to losses in excess of these payments. In addition, we indemnify our officers, directors, and certain key employees while they are serving in good faith in their company capacities. To date, we have not recorded any accruals for loss contingencies associated with indemnification claims or determined that an unfavorable outcome is probable or reasonably possible.

10. Stockholders' Equity

Share Repurchase

On August 26, 2016, our board of directors authorized a \$500.0 million share repurchase which is funded from available working capital. On February 24, 2017, our board of directors authorized a \$500.0 million increase to our repurchase program, bringing the total authorization to \$1.0 billion. Repurchases may be made at management's discretion from time to time on the open market, through privately negotiated transactions, transactions structured through investment banking institutions, block purchase techniques, 10b5-1 trading plans, or a combination of the foregoing. The repurchase authorization will expire on December 31, 2018, and may be suspended or discontinued at any time.

During the year ended July 31, 2017, we repurchased and retired 3.3 million shares of our common stock under the authorization for an aggregate purchase price of \$420.1 million, including transaction costs. The total price of the shares repurchased and related transaction costs are reflected as a reduction to common stock and additional paid-in capital on our consolidated balance sheets. As of July 31, 2017, \$580.0 million remained available for future share repurchases under the repurchase authorization.

11. Equity Award Plans

Share-Based Compensation Plans

2012 Equity Incentive Plan

Our 2012 Equity Incentive Plan (our "2012 Plan") was adopted by our board of directors and approved by the stockholders on June 5, 2012 and was effective one business day prior to the effectiveness of our registration statement for our initial public offering ("IPO"). Our 2012 Plan replaced our 2005 Equity Incentive Plan (our "2005 Plan"), which terminated upon the completion of our IPO, however, awards that were outstanding upon termination remained outstanding pursuant to their original terms. Our 2012 Plan provides for the granting of stock options, restricted stock awards ("RSAs"), restricted stock units ("RSUs"), stock appreciation rights, performance units, and performance shares ("PSAs") to our employees, directors, and consultants.

Awards granted under our 2012 Plan vest over the periods determined by the board of directors, generally three to four years from the date of grant, and our options expire no more than ten years after the date of grant. Since our IPO in 2012, awards granted

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under our 2012 Plan consist primarily of RSUs. Until vested, RSUs do not have the voting and dividend participation rights of common stock and the shares underlying the awards are not considered issued and outstanding.

In October 2016, we granted PSAs to certain employees, which will vest over a period of four years from the date of grant. The actual number of PSAs earned and eligible to vest is determined based on level of achievement against a pre-established billings target for the fiscal year ending July 31, 2017.

In February 2017, we began to net-share settle equity awards held by certain employees by withholding shares upon vesting to satisfy tax withholding obligations. The shares withheld to satisfy employee tax withholding obligations are returned to our 2012 Plan and will be available for future issuance. Payments for employees' tax obligations to the tax authorities are recognized as a reduction to additional paid-in capital and reflected as financing activities in our consolidated statements of cash flows.

A total of 16.9 million shares of our common stock are reserved for issuance pursuant to our 2012 Plan as of July 31, 2017. This includes shares that are (i) reserved but unissued under our 2005 Plan on the effective date of our 2012 Plan or (ii) returned to our 2005 Plan as a result of expiration or termination of options. On the first day of each fiscal year, the number of shares in the reserve may be increased by the lesser of (i) 8,000,000 shares, (ii) 4.5% 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.

2012 Employee Stock Purchase Plan

Our 2012 Employee Stock Purchase Plan (our "2012 ESPP") was adopted by our board of directors and approved by the stockholders on June 5, 2012 and was effective upon completion of our IPO.

Our 2012 ESPP permits eligible employees to acquire shares of our common stock at 85% of the lower of the fair market value of our common stock on the first trading day of each offering period or on the exercise date. Each offering period will be approximately six months starting on the first trading date after March 15 and September 15 of each year. Participants may purchase shares of common stock through payroll deductions of up to 15% of their eligible compensation, subject to purchase limits of 625 shares during a six-month period or \$25,000 worth of stock for each calendar year. During the year ended July 31, 2017, employees purchased 0.4 million shares of common stock under our 2012 ESPP at an average exercise price of \$110.13 per share.

A total of 2.9 million shares of our common stock are available for sale under our 2012 ESPP as of July 31, 2017. On the first day of each fiscal year, the number of shares in the reserve may be increased by the lesser of (i) 2,000,000 shares, (ii) 1% of the outstanding shares of our common stock on the first day of the fiscal year, or (iii) such other amount as determined by our board of directors.

Stock Option Activities

The following table summarizes the stock option activity under our stock plans during the reporting period (in millions, except per share amounts):

	Options Outstanding			
	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance—July 31, 2016	2.1	\$ 13.42	5.2	\$ 244.9
Options granted	—	—		
Options forfeited	—	—		
Options exercised	(0.5)	14.44		
Balance—July 31, 2017	1.6	\$ 13.11	4.2	\$ 190.6
Options exercisable—July 31, 2017	1.6	\$ 13.11	4.2	\$ 190.6

The intrinsic value of options exercised during the years ended July 31, 2017, 2016, and 2015 was \$61.2 million, \$176.1 million, and \$301.1 million, respectively. The grant-date fair value of options vested during the years ended July 31, 2016 and 2015 was \$8.1 million and \$14.6 million, respectively. All options were fully vested as of July 31, 2016.

RSU, RSA, and PSA Activities

The following table summarizes the RSU, RSA, and PSA activity under our stock plans during the reporting period (in millions, except per share amounts):

	RSAs and PSAs Outstanding		RSUs Outstanding			
	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance—July 31, 2016	1.1	\$ 170.97	6.5	\$ 130.14	1.1	\$ 852.7
Granted ⁽¹⁾	0.3	148.54	3.9	141.35		
Vested	(0.4)	170.97	(3.3)	119.88		
Forfeited	—	—	(0.6)	139.56		
Balance—July 31, 2017	1.0	\$ 163.55	6.5	\$ 141.16	1.3	\$ 854.1

(1) The number of PSAs granted represents the aggregate maximum number of shares that may be earned and issued with respect to these awards over their full terms.

The weighted-average grant-date fair value of RSAs and PSAs granted during the years ended July 31, 2017 and 2016 was \$148.54 and \$170.97 per share, respectively. There were no RSAs or PSAs granted during the year ended July 31, 2015. The aggregate fair value, as of the respective vesting dates, of RSAs vested during the year ended July 31, 2017 was \$62.6 million. No RSAs vested during the years ended July 31, 2016 and 2015, and no PSAs vested during the three years ended July 31, 2017.

The weighted-average grant-date fair value of RSUs granted during the years ended July 31, 2017, 2016, and 2015 was \$141.35, \$160.60, and \$122.36 per share, respectively. The aggregate fair value, as of the respective vesting dates, of RSUs vested during the years ended July 31, 2017, 2016, and 2015 was \$462.6 million, \$513.0 million, and \$350.4 million, respectively.

Shares Available for Grant

The following table presents the stock activity and the total number of shares available for grant under our stock plans as of July 31, 2017 (in millions):

	Number of shares
Balance—July 31, 2016	8.2
Authorized	4.1
RSUs, RSAs, and PSAs granted	(4.2)
RSUs and RSAs forfeited	0.6
Shares withheld for taxes	0.1
Balance—July 31, 2017	8.8

Share-Based Compensation

We record share-based compensation awards based on estimated fair value as of the grant date. The fair value of RSUs, RSAs, and PSAs is based on the closing market price of our common stock on the date of grant. The fair value of shares sold through our 2012 ESPP are estimated on the grant date using the Black-Scholes option pricing model.

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The following table summarizes share-based compensation included in costs and expenses (in millions):

	Year Ended July 31,		
	2017	2016	2015
Cost of product revenue	\$ 7.3	\$ 6.2	\$ 3.9
Cost of subscription and support revenue	56.2	40.9	20.4
Research and development	152.6	132.9	74.8
Sales and marketing	186.5	152.4	84.1
General and administrative	73.1	60.5	38.2
Total share-based compensation	\$ 475.7	\$ 392.9	\$ 221.4

At July 31, 2017, total compensation cost related to unvested share-based awards not yet recognized was \$906.8 million. This cost is expected to be amortized on a straight-line basis over a weighted-average period of approximately 2.6 years. Future grants will increase the amount of compensation expense to be recorded in these periods.

12. Income Taxes

The following table presents the components of income (loss) before income taxes (in millions):

	Year Ended July 31,		
	2017	2016 ⁽¹⁾	2015 ⁽¹⁾
United States	\$ (210.0)	\$ (195.3)	\$ (21.3)
Foreign	15.9	23.0	(100.6)
Total	\$ (194.1)	\$ (172.3)	\$ (121.9)

- (1) Certain amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information.

The following table summarizes our provision for income taxes (in millions):

	Year Ended July 31,		
	2017	2016 ⁽¹⁾	2015
Federal:			
Current	\$ 3.4	\$ 1.9	\$ 1.8
Deferred	—	(0.6)	(3.0)
State:			
Current	0.9	1.1	0.7
Deferred	—	(0.1)	(0.4)
Foreign:			
Current	19.7	19.1	10.7
Deferred	(1.5)	(1.0)	(0.4)
Total	\$ 22.5	\$ 20.4	\$ 9.4

- (1) Certain amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information.

For the year ended July 31, 2017, our provision for income taxes increased compared to the year ended July 31, 2016 primarily due to increases in foreign withholding taxes and U.S. income taxes related to intercompany transactions, offset by tax benefits from our adoption of new share-based payment accounting guidance in fiscal 2017. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information on our adoption of the accounting guidance.

For the year ended July 31, 2016, our provision for income taxes increased compared to the year ended July 31, 2015 primarily due to an increase in foreign taxes and amortization of our deferred tax charges.

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The following table presents the items accounting for the difference between income taxes computed at the federal statutory income tax rate and our provision for income taxes:

	Year Ended July 31,		
	2017	2016 ⁽¹⁾	2015 ⁽¹⁾
Federal statutory rate	35.0 %	35.0 %	35.0 %
Effect of:			
State taxes, net of federal tax benefit	2.8	(1.7)	4.6
Foreign income at other than U.S. rates	(14.4)	(7.8)	(6.1)
Change in valuation allowance	(39.4)	(25.4)	(28.8)
Share-based compensation	1.6	(15.9)	(13.0)
Amortization of deferred tax charges	(3.6)	(3.4)	(2.8)
Research credits	10.1	11.3	8.6
Other, net	(3.7)	(3.9)	(5.2)
Total	<u>(11.6)%</u>	<u>(11.8)%</u>	<u>(7.7)%</u>

- (1) Certain amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information.

The change in foreign income at other than U.S. rates from the year ended July 31, 2016 to July 31, 2017 was due to current year intercompany transactions.

During the year ended July 31, 2017, we adopted new share-based payment accounting guidance that requires us to recognize excess tax benefits or deficiencies as income tax expense or benefit in the period in which they occur, rather than additional paid-in capital. The effect of the change from this guidance is reflected in the share-based compensation line above.

During the year ended July 31, 2016, we accounted for the outcome of *The Gillette Company et al. v. California Franchise Tax Board* which disallowed the election to use an evenly weighted, three factor apportionment formula utilized by us on our tax return for the year ended July 31, 2014. The impact for the change in apportionment is reflected in state taxes, net of federal tax benefit above and is fully offset by changes in our valuation allowance.

The following table presents the components of our deferred tax assets and liabilities as of July 31, 2017 and July 31, 2016 (in millions):

	July 31,	
	2017	2016 ⁽¹⁾
Deferred tax assets:		
Accruals and reserves	\$ 35.9	\$ 43.5
Deferred revenue	123.2	62.0
Net operating loss carryforwards	245.3	5.4
Research and development and foreign tax credits	69.3	41.4
Share-based compensation	45.4	55.2
Gross deferred tax assets	<u>519.1</u>	<u>207.5</u>
Valuation allowance	(464.1)	(161.3)
Total deferred tax assets	55.0	46.2
Deferred tax liabilities:		
Fixed assets and intangible assets	(9.1)	(14.2)
Deferred commissions	(36.8)	(27.7)
Other deferred tax liabilities	(4.0)	(2.5)
Total deferred tax liabilities	<u>(49.9)</u>	<u>(44.4)</u>
Total	<u>\$ 5.1</u>	<u>\$ 1.8</u>

- (1) Certain amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information.

During the year ended July 31, 2017, we adopted new share-based payment accounting guidance related to the timing of when excess tax benefits are recognized. We adopted the guidance on a modified retrospective basis and, as a result, our deferred tax assets for the year ended July 31, 2017 reflect additional net operating losses of \$385.7 million and research and development credits of \$5.3 million that were not included in the balances for the year ended July 31, 2016. In addition, our valuation allowance increased \$389.2 million as a result of adopting the new guidance. The increase in net operating losses due to the adoption of the new guidance was partially offset by income in the U.S. due to intercompany transactions.

A valuation allowance is provided when it is more likely than not that the deferred tax asset will not be realized. Realization of deferred tax assets is dependent upon future taxable income, if any, the amount and timing of which are uncertain. At such time, if it is determined that it is more likely than not that the deferred tax assets are realizable, the valuation allowance will be adjusted. As of July 31, 2017, we have provided a valuation allowance for our federal, state, and certain foreign deferred tax assets that we believe will, more likely than not, be unrealizable. The net valuation allowance increased by approximately \$302.8 million from the year ended July 31, 2016 to the year ended July 31, 2017. The increase was primarily due to the adoption of new share-based payment accounting guidance and was partially offset by NOL utilization related to intercompany transactions.

As of July 31, 2017, we had federal, state, and foreign NOL carryforwards of approximately \$1.1 billion, \$806.4 million, and \$45.8 million, respectively, as reported on our tax returns, available to reduce future taxable income, if any. If not utilized, our federal and state NOL carryforwards will expire in various amounts at various dates beginning in the years ending July 31, 2027 and July 31, 2018, respectively. Our foreign NOL will carry forward indefinitely.

As of July 31, 2017, we had federal and state research and development tax credit carryforwards of approximately \$48.6 million and \$49.7 million, respectively as reported on our tax returns. If not utilized, the federal credit carryforwards will expire in various amounts at various dates beginning in the year ending July 31, 2026. The state credit will carry forward indefinitely.

As of July 31, 2017, we had foreign tax credit carryforwards of \$2.5 million as reported on our tax returns. If not utilized, the foreign tax credit carryforwards will expire in various amounts at various dates beginning in the year ending July 31, 2021.

Utilization of the NOL carryforwards and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of NOLs and credits before utilization.

As a result of adopting the new share-based payment guidance, we did not reflect the impact of excess tax benefits in additional paid-in capital for the year ended July 31, 2017. Prior to adopting this guidance, we recorded excess tax benefits of \$0.5 million and \$2.5 million directly to additional paid-in capital for the years ended July 31, 2016 and 2015, respectively.

During the year ended July 31, 2017, we were awarded a tax incentive by a foreign jurisdiction. The incentive is effective through September 30, 2031, and is conditional upon meeting certain investment and employment thresholds. The impact of this incentive on our provision for income taxes was not material for the year ended July 31, 2017.

As of July 31, 2017, we had \$301.3 million of unrecognized tax benefits, \$34.0 million of which would affect income tax expense if recognized, after consideration of our valuation allowance in the United States and other assets. As of July 31, 2016, we had \$127.7 million of unrecognized tax benefits, \$21.9 million of which would affect income tax expense if recognized, after consideration of our valuation allowance in the United States. As of July 31, 2017, our federal, state, and foreign returns for the tax years 2008 through the current period remain subject to adjustment due to examination. Fiscal years outside the normal statute of limitation remain open to audit by tax authorities due to tax attributes generated in earlier years, which have been carried forward and may be audited in subsequent years when utilized. We do not expect the amount of unrecognized tax benefits as of July 31, 2017 to change significantly over the next 12 months. We recognize both interest and penalties associated with uncertain tax positions as a component of income tax expense. During the years ended July 31, 2017, 2016, and 2015, we recognized income tax expense related to interest and penalties of \$2.1 million, \$1.6 million, and \$1.1 million, respectively. We had accrued interest and penalties on our consolidated balance sheets related to unrecognized tax benefits of \$5.4 million and \$3.3 million as of July 31, 2017 and 2016, respectively. The ultimate amount and timing of any future cash settlements cannot be predicted with reasonable certainty.

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The following table presents a reconciliation of the beginning and ending amount of our gross unrecognized tax benefits (in millions):

	Year Ended July 31,		
	2017	2016	2015
Unrecognized tax benefits at the beginning of the period	\$ 127.7	\$ 67.2	\$ 10.4
Additions for tax positions taken in prior years	3.1	25.2	6.1
Reductions for tax positions taken in prior years	—	—	(0.6)
Additions for tax positions taken in the current year	170.5	35.3	51.3
Unrecognized tax benefits at the end of the period	<u>\$ 301.3</u>	<u>\$ 127.7</u>	<u>\$ 67.2</u>

During the year ended July 31, 2017, our additions for tax positions taken in the current year were primarily attributable to uncertainties related to intercompany transactions.

During the year ended July 31, 2016, our additions for tax positions taken in prior years and additions for tax positions taken in the current year were primarily attributable to uncertain tax positions relating to federal and state research and development credits, adjustments for California apportionment, and transfer pricing methodologies.

As of July 31, 2017, we had no unremitted earnings when evaluating our outside basis differences relating to our investment in foreign subsidiaries. Accordingly, we have not provided a deferred tax liability for any potential U.S. income taxes or foreign withholding taxes.

13. Net Loss Per Share

Basic net loss per share is computed by dividing net loss by basic weighted-average shares outstanding during the period. Diluted net loss per share is computed by dividing net loss by diluted weighted-average shares outstanding, including potentially dilutive securities.

The following table presents the computation of basic and diluted net loss per share of common stock (in millions, except per share data):

	Year Ended July 31,		
	2017	2016	2015
Net loss	\$ (216.6)	\$ (192.7)	\$ (131.3)
Weighted-average shares used to compute net loss per share, basic and diluted	90.6	87.1	81.6
Net loss per share, basic and diluted	<u>\$ (2.39)</u>	<u>\$ (2.21)</u>	<u>\$ (1.61)</u>

The following securities were excluded from the computation of diluted net loss per share of common stock for the periods presented as their effect would have been antidilutive (in millions):

	Year Ended July 31,		
	2017	2016	2015
RSUs	6.5	6.5	7.2
Convertible senior notes	5.2	5.2	5.2
Warrants related to the issuance of convertible senior notes	5.2	5.2	5.2
Options to purchase common stock	1.6	2.1	3.3
RSAs and PSAs	1.0	1.1	—
ESPP shares	0.2	0.1	0.1
Total	<u>19.7</u>	<u>20.2</u>	<u>21.0</u>

14. Other Income, Net

The following table sets forth the components of other income, net (in millions):

	Year Ended July 31,		
	2017	2016	2015
Interest income	\$ 14.7	\$ 8.8	\$ 3.9
Foreign currency exchange losses, net	(3.4)	—	(3.0)
Other	(1.1)	(0.4)	(0.7)
Total other income, net	<u>\$ 10.2</u>	<u>\$ 8.4</u>	<u>\$ 0.2</u>

15. Employee Benefit Plan

We have established a 401(k) tax-deferred savings plan which permits participants to make contributions by salary deduction pursuant to Section 401(k) of the Internal Revenue Code. In fiscal 2016, we began to make matching contributions based upon the amount of employees' contributions, subject to certain limitations. Our matching contributions to the plan were immaterial for the years ended July 31, 2017 and 2016.

16. Segment Information

We conduct business globally and are primarily managed on a geographic theater basis. Our chief operating decision maker reviews financial information presented on a consolidated basis accompanied by information about revenue by geographic region for purposes of allocating resources and evaluating financial performance. We have one business activity and there are no segment managers who are held accountable for operations, operating results, and plans for levels, components, or types of products or services below the consolidated unit level. Accordingly, we are considered to be in a single reportable segment and operating unit structure.

The following table presents revenue by geographic theater (in millions):

	Year Ended July 31,		
	2017	2016	2015
Revenue:			
Americas			
United States	\$ 1,155.3	\$ 901.8	\$ 593.8
Other Americas	82.1	71.4	45.6
Total Americas	<u>1,237.4</u>	<u>973.2</u>	<u>639.4</u>
Europe, the Middle East, and Africa ("EMEA")	320.1	247.1	178.7
Asia Pacific and Japan ("APAC")	204.1	158.2	110.0
Total revenue	<u>\$ 1,761.6</u>	<u>\$ 1,378.5</u>	<u>\$ 928.1</u>

The following table presents revenue for groups of similar products and services (in millions):

	Year Ended July 31,		
	2017	2016	2015
Revenue:			
Product	\$ 709.1	\$ 670.8	\$ 492.7
Subscription and support			
Subscription	550.8	357.0	212.7
Support	501.7	350.7	222.7
Total subscription and support	<u>1,052.5</u>	<u>707.7</u>	<u>435.4</u>
Total revenue	<u>\$ 1,761.6</u>	<u>\$ 1,378.5</u>	<u>\$ 928.1</u>

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The following table presents our property and equipment, net by geographic region (in millions):

	Year Ended July 31,	
	2017	2016
Property and equipment, net:		
United States	\$ 178.4	\$ 102.3
International	32.7	14.9
Total property and equipment, net	\$ 211.1	\$ 117.2

17. Selected Quarterly Financial Data (Unaudited)

The following tables set forth selected unaudited quarterly financial data for the years ended July 31, 2017 and 2016 (in millions, except per share amounts):

	Three Months Ended			
	Oct. 31, 2016 ⁽¹⁾	Jan. 31, 2017	Apr. 30, 2017	Jul. 31, 2017
Revenue:				
Product	\$ 163.8	\$ 168.8	\$ 164.2	\$ 212.3
Subscription and support	234.3	253.8	267.6	296.8
Total revenue	398.1	422.6	431.8	509.1
Cost of revenue:				
Product	42.2	45.8	49.7	63.7
Subscription and support	59.0	67.4	74.0	74.8
Total cost of revenue	101.2	113.2	123.7	138.5
Total gross profit	296.9	309.4	308.1	370.6
Operating expenses:				
Research and development	84.2	89.9	86.0	87.3
Sales and marketing	220.1	226.7	226.9	245.4
General and administrative	41.6	47.2	44.3	65.2
Total operating expenses	345.9	363.8	357.2	397.9
Operating loss	(49.0)	(54.4)	(49.1)	(27.3)
Interest expense	(6.0)	(6.1)	(6.2)	(6.2)
Other income, net	2.5	2.7	2.1	2.9
Loss before income taxes	(52.5)	(57.8)	(53.2)	(30.6)
Provision for income taxes	4.4	2.8	7.7	7.6
Net loss	\$ (56.9)	\$ (60.6)	\$ (60.9)	\$ (38.2)
Net loss per share, basic and diluted	\$ (0.63)	\$ (0.67)	\$ (0.67)	\$ (0.42)

- (1) Certain amounts have been adjusted due to our early adoption of new share-based payment accounting guidance. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information.

	Three Months Ended			
	Oct. 31, 2015	Jan. 31, 2016	Apr. 30, 2016	Jul. 31, 2016
Revenue:				
Product	\$ 147.7	\$ 169.9	\$ 162.1	\$ 191.1
Subscription and support	149.5	164.8	183.7	209.7
Total revenue	297.2	334.7	345.8	400.8
Cost of revenue:				
Product	38.8	44.9	43.2	48.5
Subscription and support	40.4	49.3	51.7	53.2
Total cost of revenue	79.2	94.2	94.9	101.7
Total gross profit	218.0	240.5	250.9	299.1
Operating expenses:				
Research and development	59.7	74.0	74.0	76.5
Sales and marketing ⁽¹⁾	159.5	182.4	195.9	205.4
General and administrative	30.8	34.2	33.5	39.9
Total operating expenses ⁽¹⁾	250.0	290.6	303.4	321.8
Operating loss ⁽¹⁾	(32.0)	(50.1)	(52.5)	(22.7)
Interest expense	(5.8)	(5.8)	(5.8)	(6.0)
Other income, net	2.2	2.5	1.0	2.7
Loss before income taxes ⁽¹⁾	(35.6)	(53.4)	(57.3)	(26.0)
Provision for income taxes ⁽¹⁾	4.3	3.9	6.8	5.4
Net loss ⁽¹⁾	\$ (39.9)	\$ (57.3)	\$ (64.1)	\$ (31.4)
Net loss per share, basic and diluted ⁽¹⁾	\$ (0.47)	\$ (0.66)	\$ (0.73)	\$ (0.35)

(1) Amounts have been adjusted due to our voluntary change in accounting policy for sales commissions. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies for more information.

18. Subsequent Events

Facility Exit

In August 2017, we exited our previous headquarter facilities and relocated to our new corporate campus. As a result, we expect to recognize a cease-use loss of approximately \$15.4 million during the first quarter of fiscal 2018. The cease-use loss is calculated based on the remaining lease obligation for the vacated facilities, adjusted for the effects of any deferred items recognized under the leases, estimated sublease rentals that could be reasonably obtained, and related costs. The amount of the cease-use loss may vary if the timing or amount of estimated cash flows change. Refer to Note 9. Commitments and Contingencies for more information on the relocation of our corporate headquarters.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control

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objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Based on our evaluation, our chief executive officer and chief financial officer concluded that, as of July 31, 2017, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission (SEC) rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

For "Management's Annual Report on Internal Control Over Financial Reporting" see the report under Part II, Item 8 of this Annual Report on Form 10-K, which report is incorporated herein by reference.

For the "Report of Independent Registered Public Accounting Firm," see the report under Part II, Item 8 of this Annual Report on Form 10-K, which report is incorporated herein by reference.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended July 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Executive Officers and Directors

The information required by this item will be contained in our definitive proxy statement to be filed with the SEC in connection with our 2017 annual meeting of stockholders (the "Proxy Statement"), which is expected to be filed not later than 120 days after the end of our fiscal year ended July 31, 2017, and is incorporated in this report by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Documents filed as part of this Annual Report on Form 10-K are as follows:

1. Consolidated Financial Statements

Our Consolidated Financial Statements are listed in the “Index to Consolidated Financial Statements” under Part II, Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

Financial statement schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is shown in the Consolidated Financial Statements or Notes thereto.

3. 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 Annual Report on Form 10-K, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

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, on September 7, 2017.

PALO ALTO NETWORKS, INC.

By: /s/ MARK D. MCLAUGHLIN

Mark D. McLaughlin

Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL THESE PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Mark D. McLaughlin and Steffan C. Tomlinson, and each of them, as his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ MARK D. MCLAUGHLIN</u> Mark D. McLaughlin	Chief Executive Officer and Director (Principal Executive Officer)	September 7, 2017
<u>/s/ STEFFAN C. TOMLINSON</u> Steffan C. Tomlinson	Chief Financial Officer (Principal Accounting and Financial Officer)	September 7, 2017
<u>/s/ NIR ZUK</u> Nir Zuk	Chief Technical Officer and Director	September 7, 2017
<u>/s/ FRANK CALDERONI</u> Frank Calderoni	Director	September 7, 2017
<u>/s/ ASHEEM CHANDNA</u> Asheem Chandna	Director	September 7, 2017
<u>/s/ JOHN M. DONOVAN</u> John M. Donovan	Director	September 7, 2017
<u>/s/ CARL ESCHENBACH</u> Carl Eschenbach	Director	September 7, 2017
<u>/s/ JAMES J. GOETZ</u> James J. Goetz	Director	September 7, 2017
<u>/s/ MARY PAT MCCARTHY</u> Mary Pat McCarthy	Director	September 7, 2017
<u>/s/ STANLEY J. MERESMAN</u> Stanley J. Meresman	Director	September 7, 2017
<u>/s/ SRIDHAR RAMASWAMY</u> Sridhar Ramaswamy	Director	September 7, 2017
<u>/s/ DANIEL J. WARMENHOVEN</u> Daniel J. Warmenhoven	Director	September 7, 2017

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	Restated Certificate of Incorporation of the Registrant.	10-K	001-35594	3.1	October 4, 2012
3.2	Amended and Restated Bylaws of the Registrant.	10-K	001-35594	3.2	October 4, 2012
3.3	Certificate of Change of Location of Registered Agent and/or Registered Office.	8-K	001-35594	3.1	August 30, 2016
4.1	Warrant to Purchase Stock by Juniper Networks, Inc.	8-K	001-35594	4.1	June 4, 2014
4.2	Indenture between the Registrant and U.S. Bank National Association, dated as of June 30, 2014.	8-K	001-35594	4.1	July 1, 2014
10.1*	Form of Indemnification Agreement between the Registrant and its directors and officers.	S-1/A	333-180620	10.1	July 9, 2012
10.2*	2005 Equity Incentive Plan and related form agreements under 2005 Equity Incentive Plan.	S-1/A	333-180620	10.2	July 9, 2012
10.3*	2012 Equity Incentive Plan and related form agreements under 2012 Equity Incentive Plan, as amended.	10-K	001-35594	10.3	September 18, 2014
10.4*	2012 Employee Stock Purchase Plan and related form agreements under 2012 Employee Stock Purchase Plan, as amended and restated.				
10.5*	Employee Incentive Compensation Plan, as amended and restated.	10-Q	001-35594	10.2	November 25, 2014
10.6*	Offer Letter between the Registrant and Mark D. McLaughlin, dated July 21, 2011, as amended.	S-1	333-180620	10.6	April 6, 2012
10.7*	Offer Letter between the Registrant and Steffan C. Tomlinson, dated January 17, 2012.	S-1	333-180620	10.7	April 6, 2012
10.8*	Letter Agreement between the Registrant and Nir Zuk, dated December 19, 2011.	S-1	333-180620	10.8	April 6, 2012
10.9*	Letter Agreement between the Registrant and René Bonvanie, dated December 19, 2011.	S-1	333-180620	10.10	April 6, 2012
10.10*	Offer Letter between the Registrant and Stanley J. Meresman, dated September 8, 2014.	8-K	001-35594	10.1	September 22, 2014
10.11*	Offer Letter between the Registrant and Daniel J. Warmenhoven, dated February 14, 2012.	S-1	333-180620	10.13	April 6, 2012
10.12*	Offer Letter between the Registrant and Mark F. Anderson, dated May 23, 2012.	S-1/A	333-180620	10.16	July 9, 2012
10.13*	Offer Letter between the Registrant and John M. Donovan, dated September 14, 2012.	8-K	001-35594	10.1	September 20, 2012
10.14*	Offer Letter between the Registrant and Carl Eschenbach, dated May 9, 2013.	8-K	001-35594	10.1	May 30, 2013
10.15*	Offer Letter between the Registrant and Frank Calderoni, dated February 24, 2016.	8-K	001-35594	10.1	February 25, 2016
10.16*	Offer Letter between the Registrant and Mary Pat McCarthy, dated October 13, 2016.	8-K	001-35594	10.1	October 24, 2016
10.17	Lease between the Registrant and Santa Clara Office Partners LLC, dated October 20, 2010, as amended.	S-1	333-180620	10.14	April 6, 2012
10.18	Amendment No. 2 to Lease between the Registrant and Santa Clara Office Partners LLC, dated July 2, 2013.	10-K	001-35594	10.17	September 25, 2013

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Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.19	Lease between the Registrant and SI 34 LLC, dated September 17, 2012.	10-K	001-35594	10.16	October 4, 2012
10.20	Lease between the Registrant and SI 34 LLC, dated September 17, 2012.	10-K	001-35594	10.17	October 4, 2012
10.21 **	Amended and Restated Flextronics Manufacturing Services Agreement, by and between the Registrant and Flextronics Telecom Systems Ltd., dated December 8, 2015.	8-K	001-35594	10.1	December 14, 2015
10.22	Settlement, Release and Cross-License Agreement, dated May 27, 2014, by and between the Registrant and Juniper Networks, Inc.	8-K	001-35594	10.1	May 28, 2014
10.23	Share Purchase Agreement between the Registrant, Cyvera Ltd., Palo Alto Networks Holding B.V., the shareholders of Cyvera Ltd. and Shareholder Representative Services LLC, dated March 22, 2014.	10-Q	001-35594	10.1	June 3, 2014
10.24	Amendment No. 1 to the Share Purchase Agreement between the Registrant, Cyvera Ltd., Palo Alto Networks Holding B.V., the shareholders of Cyvera Ltd. and Shareholder Representative Services LLC, dated April 9, 2014.	10-Q	001-35594	10.2	June 3, 2014
10.25	Purchase Agreement, dated June 24, 2014, by and among the Registrant and J.P. Morgan Securities LLC, RBC Capital Markets, LLC and Citigroup Global Markets Inc., as representatives of the initial purchasers named therein.	8-K	001-35594	10.1	June 26, 2014
10.26	Form of Convertible Note Hedge Confirmation.	8-K	001-35594	10.2	June 26, 2014
10.27	Form of Warrant Confirmation.	8-K	001-35594	10.3	June 26, 2014
10.28	Lease between the Registrant and Santa Clara Campus Property Owner I LLC, dated May 28, 2015.	10-K	001-35594	10.29	September 17, 2015
10.29	Lease between the Registrant and Santa Clara Campus Property Owner I LLC, dated May 28, 2015.	10-K	001-35594	10.30	September 17, 2015
10.30	Lease between the Registrant and Santa Clara Campus Property Owner I LLC, dated May 28, 2015.	10-K	001-35594	10.31	September 17, 2015
10.31	Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated October 7, 2015.	8-K	001-35594	10.1	October 19, 2015
10.32	Amendment No. 1 to Lease by and between the Registrant and Santa Clara Phase I Property LLC, dated November 9, 2015.	10-Q	001-35594	10.2	November 24, 2015
10.33	Amendment No. 1 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated November 9, 2015.	10-Q	001-35594	10.3	November 24, 2015
10.34	Amendment No. 1 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated September 16, 2016.	10-Q	001-35594	10.1	November 22, 2016
10.35	Amendment No. 1 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated September 16, 2016.	10-Q	001-35594	10.2	November 22, 2016
10.36	Amendment No. 2 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated September 16, 2016.	10-Q	001-35594	10.3	November 22, 2016

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Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.37	Amendment No. 2 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated November 16, 2016.	10-Q	001-35594	10.1	March 1, 2017
10.38	Amendment No. 2 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated November 16, 2016.	10-Q	001-35594	10.2	March 1, 2017
10.39	Amendment No. 3 to Lease by and between the Registrant and Santa Clara Campus Property Owner I LLC, dated November 16, 2016.	10-Q	001-35594	10.3	March 1, 2017
10.40	Amendment No. 3 to Lease by and between the Registrant and Santa Clara EFH LLC, dated June 22, 2017.				
10.41	Amendment No. 3 to Lease by and between the Registrant and Santa Clara G LLC, dated June 22, 2017.				
10.42	Amendment No. 4 to Lease by and between the Registrant and Santa Clara EFH LLC, dated June 22, 2017.				
21.1	List of subsidiaries of the Registrant.				
23.1	Consent of Independent Registered Public Accounting Firm.				
24.1	Power of Attorney (contained in the signature page to this Annual Report on Form 10-K).				
31.1	Certification of the Chief Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of the Chief Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.				
32.1 †	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2 †	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document.				
101.SCH	XBRL Taxonomy Schema Linkbase Document.				
101.CAL	XBRL Taxonomy Calculation Linkbase Document.				
101.DEF	XBRL Taxonomy Definition Linkbase Document.				
101.LAB	XBRL Taxonomy Labels Linkbase Document.				
101.PRE	XBRL Taxonomy Presentation Linkbase Document.				

* Indicates a management contract or compensatory plan or arrangement.

** Registrant has omitted portions of the relevant exhibit and filed such exhibit separately with the Securities and Exchange Commission pursuant to a request for confidential treatment under Rule 406 under the Securities Act of 1933, as amended.

† The certifications attached as Exhibit 32.1 and Exhibit 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 the Registrant 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.

PALO ALTO NETWORKS, INC.

2012 EMPLOYEE STOCK PURCHASE PLAN

(as amended and restated August 29, 2017 (the "Restatement Effective Date"))

1 . Purpose. The purpose of the Plan is to provide employees of the Company and its Designated Companies with an opportunity to purchase Common Stock through accumulated Contributions. The Company intends for the Plan to have two components: a Code Section 423 Component ("423 Component") and a Non-Code Section 423 Component ("Non-423 Component"). The Company's intention is to have the 423 Component of the Plan qualify as an "employee stock purchase plan" under Section 423 of the Code. The provisions of the 423 Component, accordingly, will be construed so as to extend and limit Plan participation in a uniform and nondiscriminatory basis consistent with the requirements of Section 423 of the Code. In addition, this Plan authorizes the grant of an option to purchase shares of Common Stock under the Non-423 Component that does not qualify as an "employee stock purchase plan" under Section 423 of the Code; such an option will be granted pursuant to rules, procedures or subplans adopted by the Administrator designed to achieve tax, securities laws or other objectives for Eligible Employees and the Company. Except as otherwise provided herein, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

2. Definitions.

(a) "Administrator" means the Board or any Committee designated by the Board to administer the Plan pursuant to Section 14.

(b) "Affiliate" means any entity, other than a Subsidiary, in which the Company has an equity or other ownership interest.

(c) "Applicable Laws" means the requirements relating to the administration of equity-based awards under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where options are, or will be, granted under the Plan.

(d) "Board" means the Board of Directors of the Company.

(e) "Change in Control" means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than fifty percent (50%) of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection, the acquisition of additional stock by any one Person, who is considered to own more than fifty percent (50%) of the total voting power of the stock of the Company will not be considered a Change in Control; or

(ii) A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12)-month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the twelve (12)-month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than fifty percent (50%) of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection, the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, fifty percent (50%) or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, fifty percent (50%) or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least fifty percent (50%) of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection, gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Code Section 409A, as it has been and may be amended from time to time, and any proposed or final U.S. Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(f) "Code" means the U.S. Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or U.S. Treasury Regulation thereunder will include such section or regulation, any valid regulation or other official applicable guidance promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(g) “Committee” means a committee of the Board appointed in accordance with Section 14 hereof.

(h) “Common Stock” means the common stock of the Company.

(i) “Company” means Palo Alto Networks, Inc., a Delaware corporation, or any successor thereto.

(j) “Compensation” means an Eligible Employee’s base straight time gross earnings, payments for overtime and shift premium, but exclusive of payments for commissions, incentive compensation, bonuses and other similar compensation. The Administrator, in its discretion, may, on a uniform and nondiscriminatory basis, establish a different definition of Compensation for a subsequent Offering Period.

(k) “Contributions” means the payroll deductions and other additional payments that the Company may permit to be made by a Participant to fund the exercise of options granted pursuant to the Plan.

(l) “Designated Company” means any Subsidiary or Affiliate that has been designated by the Administrator from time to time in its sole discretion as eligible to participate in the Plan. For purposes of the 423 Component, only the Company and its Subsidiaries may be Designated Companies, provided, however, that at any given time, a Subsidiary that is a Designated Company under the 423 Component shall not be a Designated Company under the Non-423 Component.

(m) “Director” means a member of the Board.

(n) “Eligible Employee” means any individual who is a common law employee of the Company or a Designated Company and is customarily employed for at least twenty (20) hours per week and more than five (5) months in any calendar year by the Employer, or any lesser number of hours per week and/or number of months in any calendar year established by the Administrator (if required under applicable local law) for purposes of any separate Offering or for Eligible Employees participating in the Non-423 Component. For purposes of the Plan, the employment relationship will be treated as continuing intact while the individual is on sick leave or other leave of absence that the Employer approves or is legally protected under Applicable Laws. Where the period of leave exceeds three (3) months and the individual’s right to reemployment is not guaranteed either by statute or by contract, the employment relationship will be deemed to have terminated three (3) months and one (1) day following the commencement of such leave. The Administrator retains the authority to revise the definition of Eligible Employee (on a uniform and nondiscriminatory basis or as otherwise permitted by Treasury Regulation Section 1.423-2). Accordingly, the Administrator, in its discretion, from time to time may, prior to an Enrollment Date for all options to be granted on such Enrollment Date in an Offering, determine (on a uniform and nondiscriminatory basis or as otherwise permitted by Treasury Regulation Section 1.423-2) that the definition of Eligible Employee will or will not include an individual if he or she: (i) has not completed at least two (2) years of service since his or her last hire date (or such lesser period of time as may be determined by the Administrator in its discretion), (ii) customarily works not more than twenty (20) hours per week (or such lesser period of time as may

be determined by the Administrator in its discretion), (iii) customarily works not more than five (5) months per calendar year (or such lesser period of time as may be determined by the Administrator in its discretion), (iv) is a highly compensated employee within the meaning of Section 414(q) of the Code, or (v) is a highly compensated employee within the meaning of Section 414(q) of the Code with compensation above a certain level or is an officer or subject to the disclosure requirements of Section 16(a) of the Exchange Act, provided the exclusion is applied with respect to each Offering in an identical manner to all highly compensated individuals of the Employer whose Employees are participating in that Offering. Each exclusion shall be applied with respect to an Offering in a manner complying with U.S. Treasury Regulation Section 1.423-2(e)(2)(ii).

(o) “Employer” means the employer of the applicable Eligible Employee(s).

(p) “Enrollment Date” means the first Trading Day of each Offering Period.

(q) “Exchange Act” means the U.S. Securities Exchange Act of 1934, as amended, including the rules and regulations promulgated thereunder.

(r) “Exercise Date” means the first Trading Day on or after February 28 and August 31 of each Purchase Period. Notwithstanding the foregoing, the first Exercise Date following the Restatement Effective Date will be February 28, 2018.

(s) “Fair Market Value” means, as of any date and unless the Administrator determines otherwise, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the New York Stock Exchange, NASDAQ Global Select Market, the NASDAQ Global Market or the NASDAQ Capital Market of The NASDAQ Stock Market, its Fair Market Value will be the closing sales price for such stock as quoted on such exchange or system on the date of determination (or the closing bid, if no sales were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value will be the mean between the high bid and low asked prices for the Common Stock on the date of determination (or if no bids and asks were reported on that date, as applicable, on the last Trading Day such bids and asks were reported), as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof will be determined in good faith by the Administrator.

(t) “Fiscal Year” means the fiscal year of the Company.

(u) “New Exercise Date” means a new Exercise Date if the Administrator shortens any Offering Period then in progress.

(v) “Offering” means an offer under the Plan of an option that may be exercised during an Offering Period as further described in Section 4. For purposes of the Plan, the Administrator may designate separate Offerings under the Plan (the terms of which need not be identical) in which Employees of one or more Employers will participate, even if the dates of the applicable Offering Periods of each such Offering are identical and the provisions of the Plan will separately apply to each Offering. To the extent permitted by U.S. Treasury Regulation Section 1.423-2(a)(1), the terms of each Offering need not be identical provided that the terms of the Plan and an Offering together satisfy U.S. Treasury Regulation Section 1.423-2(a)(2) and (a)(3).

(w) “Offering Periods” means the periods of approximately twenty-four (24) months during which an option granted pursuant to the Plan may be exercised, (i) commencing on the first Trading Day on or after February 28 and August 31 of each year and terminating on the first Trading Day on or after August 31 and February 28, approximately twenty-four (24) months later (subject to Section 30); for clarity, the first Offering Period following the Restatement Effective Date will commence on September 18, 2017 and end on the first Trading Date on or after August 31, 2019. The duration and timing of Offering Periods may be changed pursuant to Sections 4 and 20.

(x) “Parent” means a “parent corporation,” whether now or hereafter existing, as defined in Section 424(e) of the Code.

(y) “Participant” means an Eligible Employee who participates in the Plan.

(z) “Plan” means this Palo Alto Networks, Inc. 2012 Employee Stock Purchase Plan.

(aa) “Purchase Period” means the period during an Offering Period which shares of Common Stock may be purchased on a Participant’s behalf in accordance with the terms of the Plan. Unless the Administrator provides otherwise, for Offering Periods commencing on or after the Restatement Effective Date, the Purchase Period shall mean the approximately six (6)-month period commencing on one Exercise Date and ending with the next Exercise Date, except that the first Purchase Period of any Offering Period shall commence on the Enrollment Date and end with the next Exercise Date.

(bb) “Purchase Price” means an amount equal to eighty-five percent (85%) of the Fair Market Value of a share of Common Stock on the Enrollment Date or on the Exercise Date, whichever is lower; provided however, that the Purchase Price may be determined for subsequent Offering Periods by the Administrator subject to compliance with Section 423 of the Code (or any successor rule or provision or any other Applicable Law, regulation or stock exchange rule) or pursuant to Section 20.

(cc) “Subsidiary” means a “subsidiary corporation,” whether now or hereafter existing, as defined in Section 424(f) of the Code.

(dd) “Trading Day” means a day on which the national stock exchange upon which the Common Stock is listed is open for trading.

(ee) “U.S. Treasury Regulations” means the Treasury regulations of the Code. Reference to a specific Treasury Regulation or Section of the Code shall include such Treasury Regulation or Section, any valid regulation promulgated under such Section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such Section or regulation.

3. Eligibility.

(a) Enrollment. Any Eligible Employee on a given Enrollment Date subsequent to the first Offering Period will be eligible to participate in the Plan, subject to the requirements of Section 5.

(b) Non-U.S. Employees. Eligible Employees who are citizens or residents of a non-U.S. jurisdiction (without regard to whether they also are citizens or residents of the United States or resident aliens (within the meaning of Section 7701(b)(1)(A) of the Code)) may be excluded from participation in the Plan or an Offering if the participation of such Eligible Employees is prohibited under the laws of the applicable jurisdiction or if complying with the laws of the applicable jurisdiction would cause the Plan or an Offering to violate Section 423 of the Code. In the case of the Non-423 Component, Eligible Employees may be excluded from participation in the Plan or an Offering if the Administrator has determined that participation of such Eligible Employees is not advisable or practicable.

(c) Limitations. Any provisions of the Plan to the contrary notwithstanding, no Eligible Employee will be granted an option under the Plan (i) to the extent that, immediately after the grant, such Eligible Employee (or any other person whose stock would be attributed to such Eligible Employee pursuant to Section 424(d) of the Code) would own capital stock of the Company or any Parent or Subsidiary of the Company and/or hold outstanding options to purchase such stock possessing five percent (5%) or more of the total combined voting power or value of all classes of the capital stock of the Company or of any Parent or Subsidiary of the Company, or (ii) to the extent that his or her rights to purchase stock under all employee stock purchase plans (as defined in Section 423 of the Code) of the Company or any Parent or Subsidiary of the Company accrues at a rate, which exceeds twenty-five thousand dollars (\$25,000) worth of stock (determined at the Fair Market Value of the stock at the time such option is granted) for each calendar year in which such option is outstanding at any time, as determined in accordance with Section 423 of the Code and the regulations thereunder.

4. Offering Periods. The Plan will be implemented by overlapping Offering Periods with a new Offering Period commencing on the first Trading Day on or after February 28 and August 31 of each year, or on such other date as the Administrator will determine. Notwithstanding the foregoing, the first Offering Period following the Restatement Effective Date will commence on September 18, 2017. The Administrator will have the power to change the duration of Offering Periods (including the commencement dates thereof) with respect to future Offerings without stockholder approval if such change is announced prior to the scheduled beginning of the first Offering Period to be affected thereafter; provided, however, that no Offering Period may last more than twenty-seven (27) months.

5 . Participation. An Eligible Employee may participate in the Plan pursuant to Section 3(a) by (i) submitting to the Company’s stock administration office (or its designee), on or before a date

determined by the Administrator prior to an applicable Enrollment Date, a properly completed subscription agreement authorizing Contributions in the form provided by the Administrator for such purpose, or (ii) following an electronic or other enrollment procedure determined by the Administrator.

6. Contributions.

(a) At the time a Participant enrolls in the Plan pursuant to Section 5, he or she will elect to have Contributions (in the form of payroll deductions or otherwise, to the extent permitted by the Administrator) made on each pay day during the Offering Period in an amount not exceeding fifteen percent (15%) of the Compensation, which he or she receives on each pay day during the Offering Period, including any pay day that occurs on an Exercise Date. The Administrator, in its sole discretion, may permit all Participants in a specified Offering to contribute amounts to the Plan through payment by cash, check or other means set forth in the subscription agreement prior to each Exercise Date of each Purchase Period. A Participant's subscription agreement will remain in effect for successive Offering Periods unless terminated as provided in Section 10 hereof.

(b) In the event Contributions are made in the form of payroll deductions, such payroll deductions for a Participant will commence on the first pay day following the Enrollment Date and will end on the last pay day on or prior to the Exercise Date of such Offering Period to which such authorization is applicable, unless sooner terminated by the Participant as provided in Section 10 hereof; provided, however, that for the first Offering Period, payroll deductions will commence on the first pay day on or following the end of the Enrollment Window.

(c) All Contributions made for a Participant will be credited to his or her account under the Plan and Contributions will be made in whole percentages only. A Participant may not make any additional payments into such account.

(d) A Participant may discontinue his or her participation in the Plan as provided in Section 10. Unless otherwise determined by the Administrator, during an Offering Period, a Participant may not increase the rate of his or her Contributions and may only decrease the rate of his or her Contributions one (1) time per Purchase Period. Any such decrease during an Offering Period requires the Participant (i) properly completing and submitting to the Company's stock administration office (or its designee), on or before a date determined by the Administrator prior to an applicable Exercise Date, a new subscription agreement authorizing the change in Contribution rate in the form provided by the Administrator for such purpose, or (ii) following an electronic or other procedure prescribed by the Administrator. If a Participant has not followed such procedures to change the rate of Contributions, the rate of his or her Contributions will continue at the originally elected rate throughout the Offering Period and future Offering Periods (unless terminated as provided in Section 10). The Administrator may, in its sole discretion, amend the nature and/or number of Contribution rate changes that may be made by Participants during any Offering Period or Purchase Period, and may establish such other conditions or limitations as it deems appropriate for Plan administration. Any change in payroll deduction rate made pursuant to this Section 6(d) will be effective as of the first full payroll period following five (5) business days after the date on which the change is made by the Participant (unless the Administrator, in its sole discretion, elects to process a given change in payroll deduction rate more quickly).

(e) Notwithstanding the foregoing, to the extent necessary to comply with Section 423(b)(8) of the Code and Section 3(c), a Participant's Contributions may be decreased to zero percent (0%) at any time during a Purchase Period. Subject to Section 423(b)(8) of the Code and Section 3(c) hereof, Contributions will recommence at the rate originally elected by the Participant effective as of the beginning of the first Purchase Period scheduled to end in the following calendar year, unless terminated by the Participant as provided in Section 10.

(f) Notwithstanding any provisions to the contrary in the Plan, the Administrator may allow Eligible Employees to participate in the Plan via cash contributions instead of payroll deductions if (i) payroll deductions are not permitted under applicable local law, (ii) the Administrator determines that cash contributions are permissible under Section 423 of the Code, or (iii) for Participants participating in the Non-423 Component.

(g) At the time the option is exercised, in whole or in part, or at the time some or all of the Common Stock issued under the Plan is disposed of (or any other time that a taxable event related to the Plan occurs), the Participant must make adequate provision for the Company's or Employer's federal, state, local or any other tax liability payable to any authority including taxes imposed by jurisdictions outside of the U.S., national insurance, social security or other tax withholding obligations, if any, which arise upon the exercise of the option or the disposition of the Common Stock (or any other time that a taxable event related to the Plan occurs). At any time, the Company or the Employer may, but will not be obligated to, withhold from the Participant's compensation the amount necessary for the Company or the Employer to meet applicable withholding obligations, including any withholding required to make available to the Company or the Employer any tax deductions or benefits attributable to sale or early disposition of Common Stock by the Eligible Employee. In addition, the Company or the Employer may, but will not be obligated to, withhold from the proceeds of the sale of Common Stock or any other method of withholding the Company or the Employer deems appropriate to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f).

7. Grant of Option. On the Enrollment Date of each Offering Period, each Eligible Employee participating in such Offering Period will be granted an option to purchase on each Exercise Date during such Offering Period (at the applicable Purchase Price) up to a number of shares of Common Stock determined by dividing such Eligible Employee's Contributions accumulated prior to such Exercise Date and retained in the Eligible Employee's account as of the Exercise Date by the applicable Purchase Price; provided that in no event will an Eligible Employee be permitted to purchase during each Purchase Period more than 625 shares of Common Stock (subject to any adjustment pursuant to Section 19) and provided further that such purchase will be subject to the limitations set forth in Sections 3(d) and 13. The Eligible Employee may accept the grant of such option (i) with respect to the first Offering Period by submitting a properly completed subscription agreement in accordance with the requirements of Section 5 on or before the last day of the Enrollment Window, and (ii) with respect to any subsequent Offering Period under the Plan, by electing to participate in the Plan in accordance with the requirements of Section 5. The Administrator may, for future Offering Periods, increase or decrease, in its absolute discretion, the maximum number of shares of Common Stock that an Eligible Employee may purchase during each Purchase Period of an Offering Period. Exercise of the option

will occur as provided in Section 8, unless the Participant has withdrawn pursuant to Section 10. The option will expire on the last day of the Offering Period.

8. Exercise of Option.

(a) Unless a Participant withdraws from the Plan as provided in Section 10, his or her option for the purchase of shares of Common Stock will be exercised automatically on the Exercise Date, and the maximum number of full shares subject to the option will be purchased for such Participant at the applicable Purchase Price with the accumulated Contributions from his or her account. No fractional shares of Common Stock will be purchased; any Contributions accumulated in a Participant's account, which are not sufficient to purchase a full share will be promptly refunded to Participant as soon as reasonably practicable following an Exercise Date. During a Participant's lifetime, a Participant's option to purchase shares hereunder is exercisable only by him or her.

(b) If the Administrator determines that, on a given Exercise Date, the number of shares of Common Stock with respect to which options are to be exercised may exceed (i) the number of shares of Common Stock that were available for sale under the Plan on the Enrollment Date of the applicable Offering Period, or (ii) the number of shares of Common Stock available for sale under the Plan on such Exercise Date, the Administrator may in its sole discretion (x) provide that the Company will make a pro rata allocation of the shares of Common Stock available for purchase on such Enrollment Date or Exercise Date, as applicable, in as uniform a manner as will be practicable and as it will determine in its sole discretion to be equitable among all Participants exercising options to purchase Common Stock on such Exercise Date, and continue all Offering Periods then in effect or (y) provide that the Company will make a pro rata allocation of the shares available for purchase on such Enrollment Date or Exercise Date, as applicable, in as uniform a manner as will be practicable and as it will determine in its sole discretion to be equitable among all participants exercising options to purchase Common Stock on such Exercise Date, and terminate any or all Offering Periods then in effect pursuant to Section 20. The Company may make a pro rata allocation of the shares available on the Enrollment Date of any applicable Offering Period pursuant to the preceding sentence, notwithstanding any authorization of additional shares for issuance under the Plan by the Company's stockholders subsequent to such Enrollment Date.

9. Delivery. As soon as reasonably practicable after each Exercise Date on which a purchase of shares of Common Stock occurs, the Company will arrange the delivery to each Participant of the shares purchased upon exercise of his or her option in a form determined by the Administrator (in its sole discretion) and pursuant to rules established by the Administrator. The Company may permit or require that shares be deposited directly with a broker designated by the Company or to a designated agent of the Company, and the Company may utilize electronic or automated methods of share transfer. The Company may require that shares be retained with such broker or agent for a designated period of time and/or may establish other procedures to permit tracking of disqualifying dispositions of such shares. No Participant will have any voting, dividend, or other stockholder rights with respect to shares of Common Stock subject to any option granted under the Plan until such shares have been purchased and delivered to the Participant as provided in this Section 9.

10. Withdrawal.

(a) A Participant may withdraw all but not less than all the Contributions credited to his or her account and not yet used to exercise his or her option under the Plan at least one (1) business day prior to an Exercise Date by (i) submitting to the Company's stock administration office (or its designee) a written notice of withdrawal in the form determined by the Administrator for such purpose, or (ii) following an electronic or other withdrawal procedure determined by the Administrator. All of the Participant's Contributions credited to his or her account will be paid to such Participant promptly after receipt of notice of withdrawal and such Participant's option for the Offering Period will be automatically terminated, and no further Contributions for the purchase of shares will be made for such Offering Period. If a Participant withdraws from an Offering Period, Contributions will not resume at the beginning of the succeeding Offering Period, unless the Participant re-enrolls in the Plan in accordance with the provisions of Section 5.

(b) A Participant's withdrawal from an Offering Period will not have any effect upon his or her eligibility to participate in any similar plan that may hereafter be adopted by the Company or in succeeding Offering Periods that commence after the termination of the Offering Period from which the Participant withdraws.

11. Termination of Employment. Upon a Participant's ceasing to be an Eligible Employee, for any reason, he or she will be deemed to have elected to withdraw from the Plan and the Contributions credited to such Participant's account during the Offering Period but not yet used to purchase shares of Common Stock under the Plan will be returned to such Participant or, in the case of his or her death, to the person or persons entitled thereto under Section 15, and such Participant's option will be automatically terminated.

12. Interest. No interest will accrue on the Contributions of a participant in the Plan, except as may be required by Applicable Law, as determined by the Company, and if so required by the laws of a particular jurisdiction, shall apply to all Participants in the relevant Offering under the 423 Component, except to the extent otherwise permitted by U.S. Treasury Regulation Section 1.423-2(f).

13. Stock.

(a) Subject to adjustment upon changes in capitalization of the Company as provided in Section 19 hereof, the maximum number of shares of Common Stock that will be made available for sale under the Plan will be 1,000,000 shares of Common Stock, plus an annual increase to be added on the first day of each Fiscal Year beginning with the 2014 Fiscal Year equal to the least of (i) 2,000,000 shares of Common Stock, (ii) one percent (1%) of the outstanding shares of Common Stock on such date, or (iii) an amount determined by the Administrator.

(b) Until the shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), a Participant will only have the rights of an unsecured creditor with respect to such shares, and no right to vote or receive dividends or any other rights as a stockholder will exist with respect to such shares.

(c) Shares of Common Stock to be delivered to a Participant under the Plan will be registered in the name of the Participant or in the name of the Participant and his or her spouse.

14. Administration. The Plan will be administered by the Board or a Committee appointed by the Board, which Committee will be constituted to comply with Applicable Laws. The Administrator will have full and exclusive discretionary authority to construe, interpret and apply the terms of the Plan, to designate separate Offerings under the Plan, to designate Subsidiaries and Affiliates as participating in the 423 Component or Non-423 Component, to determine eligibility, to adjudicate all disputed claims filed under the Plan and to establish such procedures that it deems necessary for the administration of the Plan (including, without limitation, to adopt such procedures and sub-plans as are necessary or appropriate to permit the participation in the Plan by employees who are foreign nationals or employed outside the U.S., the terms of which sub-plans may take precedence over other provisions of this Plan, with the exception of Section 13(a) hereof, but unless otherwise superseded by the terms of such sub-plan, the provisions of this Plan shall govern the operation of such sub-plan). Unless otherwise determined by the Administrator, the Employees eligible to participate in each sub-plan will participate in a separate Offering or in the Non-423 Component. Without limiting the generality of the foregoing, the Administrator is specifically authorized to adopt rules and procedures regarding eligibility to participate, the definition of Compensation, handling of Contributions, making of Contributions to the Plan (including, without limitation, in forms other than payroll deductions), establishment of bank or trust accounts to hold Contributions, payment of interest, conversion of local currency, obligations to pay payroll tax, determination of beneficiary designation requirements, withholding procedures and handling of stock certificates that vary with applicable local requirements. The Administrator also is authorized to determine that, to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f), the terms of an option granted under the Plan or an Offering to citizens or residents of a non-U.S. jurisdiction will be less favorable than the terms of options granted under the Plan or the same Offering to employees resident solely in the U.S. Every finding, decision and determination made by the Administrator will, to the full extent permitted by law, be final and binding upon all parties.

15. Designation of Beneficiary.

(a) If permitted by the Administrator, a Participant may file a designation of a beneficiary who is to receive any shares of Common Stock and cash, if any, from the Participant's account under the Plan in the event of such Participant's death subsequent to an Exercise Date on which the option is exercised but prior to delivery to such Participant of such shares and cash. In addition, if permitted by the Administrator, a Participant may file a designation of a beneficiary who is to receive any cash from the Participant's account under the Plan in the event of such Participant's death prior to exercise of the option. If a Participant is married and the designated beneficiary is not the spouse, spousal consent will be required for such designation to be effective.

(b) Such designation of beneficiary may be changed by the Participant at any time by notice in a form determined by the Administrator, which may be electronic. In the event of the death of a Participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such Participant's death, the Company will deliver such shares and/or cash to the executor or administrator of the estate of the Participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or

cash to the spouse or to any one or more dependents or relatives of the Participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

(c) All beneficiary designations will be in such form and manner as the Administrator may designate from time to time. Notwithstanding Sections 15(a) and (b) above, the Company and/or the Administrator may decide not to permit such designations by Participants in non-U.S. jurisdictions to the extent permitted by U.S. Treasury Regulation Section 1.423-2(f).

16. Transferability. Neither Contributions credited to a Participant's account nor any rights with regard to the exercise of an option or to receive shares of Common Stock under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in Section 15 hereof) by the Participant. Any such attempt at assignment, transfer, pledge or other disposition will be without effect, except that the Company may treat such act as an election to withdraw funds from an Offering Period in accordance with Section 10 hereof.

17. Use of Funds. The Company may use all Contributions received or held by it under the Plan for any corporate purpose, and the Company will not be obligated to segregate such Contributions except under Offerings or for Participants in the Non-423 Component for which Applicable Laws require that Contributions to the Plan by Participants be segregated from the Company's general corporate funds and/or deposited with an independent third party. Until shares of Common Stock are issued, Participants will only have the rights of an unsecured creditor with respect to such shares.

18. Reports. Individual accounts will be maintained for each Participant in the Plan. Statements of account will be given to participating Eligible Employees at least annually, which statements will set forth the amounts of Contributions, the Purchase Price, the number of shares of Common Stock purchased and the remaining cash balance, if any.

19. Adjustments, Dissolution, Liquidation, Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Common Stock or other securities of the Company, or other change in the corporate structure of the Company affecting the Common Stock occurs, the Administrator, in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will, in such manner as it may deem equitable, adjust the number and class of Common Stock that may be delivered under the Plan, the Purchase Price per share and the number of shares of Common Stock covered by each option under the Plan that has not yet been exercised, and the numerical limits of Sections 7 and 13.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, any Offering Period then in progress will be shortened by setting a New Exercise Date, and will terminate immediately prior to the consummation of such proposed dissolution or liquidation, unless provided otherwise by the Administrator. The New Exercise Date will be before the date of the

Company's proposed dissolution or liquidation. The Administrator will notify each Participant in writing or electronically, prior to the New Exercise Date, that the Exercise Date for the Participant's option has been changed to the New Exercise Date and that the Participant's option will be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering Period as provided in Section 10 hereof.

(c) Merger or Change in Control. In the event of a merger or Change in Control, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the option, the Offering Period with respect to which such option relates will be shortened by setting a New Exercise Date on which such Offering Period shall end. The New Exercise Date will occur before the date of the Company's proposed merger or Change in Control. The Administrator will notify each Participant in writing or electronically prior to the New Exercise Date, that the Exercise Date for the Participant's option has been changed to the New Exercise Date and that the Participant's option will be exercised automatically on the New Exercise Date, unless prior to such date the Participant has withdrawn from the Offering Period as provided in Section 10 hereof.

20. Amendment or Termination.

(a) The Administrator, in its sole discretion, may amend, suspend, or terminate the Plan, or any part thereof, at any time and for any reason. If the Plan is terminated, the Administrator, in its discretion, may elect to terminate all outstanding Offering Periods either immediately or upon completion of the purchase of shares of Common Stock on the next Exercise Date (which may be sooner than originally scheduled, if determined by the Administrator in its discretion), or may elect to permit Offering Periods to expire in accordance with their terms (and subject to any adjustment pursuant to Section 19). If the Offering Periods are terminated prior to expiration, all amounts then credited to Participants' accounts that have not been used to purchase shares of Common Stock will be returned to the Participants (without interest thereon, except as otherwise required under Applicable Laws, as further set forth in Section 12 hereof) as soon as administratively practicable.

(b) Without stockholder consent and without limiting Section 20(a), the Administrator will be entitled to change the Offering Periods or Purchase Periods, designate separate Offerings, limit the frequency and/or number of changes in the amount withheld during an Offering Period, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit Contributions in excess of the amount designated by a Participant in order to adjust for delays or mistakes in the Company's processing of properly completed Contribution elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each Participant properly correspond with Contribution amounts, and establish such other limitations or procedures as the Administrator determines in its sole discretion advisable that are consistent with the Plan.

(c) In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, in its discretion and, to the extent necessary or desirable, modify, amend or terminate the Plan to reduce or eliminate such accounting consequence including, but not limited to:

(i) amending the Plan to conform with the safe harbor definition under the Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto), including with respect to an Offering Period underway at the time;

(ii) altering the Purchase Price for any Offering Period or Purchase Period including an Offering Period or Purchase Period underway at the time of the change in Purchase Price;

(iii) shortening any Offering Period or Purchase Period by setting a New Exercise Date, including an Offering Period or Purchase Period underway at the time of the Administrator action;

(iv) reducing the maximum percentage of Compensation a Participant may elect to set aside as Contributions;
and

(v) reducing the maximum number of Shares a Participant may purchase during any Offering Period or Purchase Period.

Such modifications or amendments will not require stockholder approval or the consent of any Plan Participants.

21. Notices. All notices or other communications by a Participant to the Company under or in connection with the Plan will be deemed to have been duly given when received in the form and manner specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

22. Conditions Upon Issuance of Shares. Shares of Common Stock will not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto will comply with all applicable provisions of law, domestic or foreign, including, without limitation, the U.S. Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, and the requirements of any stock exchange upon which the shares may then be listed, and will be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

23. Code Section 409A. The 423 Component of the Plan is exempt from the application of Code Section 409A and any ambiguities herein will be interpreted to so be exempt from Code Section 409A. In furtherance of the foregoing and notwithstanding any provision in the Plan to the contrary, if the Administrator determines that an option granted under the Plan may be subject to Code Section 409A or that any provision in the Plan would cause an option under the Plan to be subject to Code Section 409A, the Administrator may amend the terms of the Plan and/or of an outstanding option granted under the Plan, or take such other action the Administrator determines is necessary or appropriate, in each case, without the Participant's consent, to exempt any outstanding option or future option that may be granted under the Plan from or to allow any such options to comply with Code Section 409A, but only to the extent any such amendments or action by the Administrator would not violate Code Section 409A. Notwithstanding the foregoing, the Company shall have no liability to a Participant or any other party if the option to purchase Common Stock under the Plan that is intended to be exempt from or compliant with Code Section 409A is not so exempt or compliant or for any action taken by the Administrator with respect thereto. The Company makes no representation that the option to purchase Common Stock under the Plan is compliant with Code Section 409A.

24. Term of Plan. The Plan will become effective upon the earlier to occur of its adoption by the Board or its approval by the stockholders of the Company. It will continue in effect for a term of twenty (20) years, unless sooner terminated under Section 20.

25. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

26. Governing Law. The Plan shall be governed by, and construed in accordance with, the laws of the State of California (except its choice-of-law provisions).

27. No Right to Employment. Participation in the Plan by a Participant shall not be construed as giving a Participant the right to be retained as an employee of the Company or a Subsidiary or Affiliate, as applicable. Furthermore, the Company or a Subsidiary or Affiliate may dismiss a Participant from employment at any time, free from any liability or any claim under the Plan.

28. Severability. If any provision of the Plan is or becomes or is deemed to be invalid, illegal, or unenforceable for any reason in any jurisdiction or as to any Participant, such invalidity, illegality or unenforceability shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as to such jurisdiction or Participant as if the invalid, illegal or unenforceable provision had not been included.

29. Compliance with Applicable Laws. The terms of this Plan are intended to comply with all Applicable Laws and will be construed accordingly.

30. Automatic Transfer to Low Price Offering Period. To the extent permitted by Applicable Laws, if the Fair Market Value of the Common Stock on any Exercise Date in an Offering Period is lower than the Fair Market Value of the Common Stock on the Enrollment Date of such Offering Period, then all participants in such Offering Period will be automatically withdrawn from such Offering Period

immediately after the exercise of their option on such Exercise Date and automatically re-enrolled in the immediately following Offering Period as of the first day thereof.

PALO ALTO NETWORKS, INC

APPENDIX – ISRAELI TAXPAYERS

2012 EMPLOYEE STOCK PURCHASE PLAN

ADOPTED

ON MAY 30, 2014

PALO ALTO NETWORKS, INC.

APPENDIX – ISRAELI TAXPAYERS

2012 EMPLOYEE STOCK PURCHASE PLAN

1. Special Provisions for Persons who are Israeli Taxpayers

1.1 This Appendix (the “**Appendix**”) to the Palo Alto Networks, Inc. 2012 Employee Stock Purchase Plan (the “**ESPP Plan**”), is effective as of May 30, 2014 (the “**Effective Date**”).

1.2 The provisions specified hereunder apply only to Eligible Employees who are subject to taxation by the State of Israel with respect to grant of rights to purchase Plan Shares under the ESPP Plan (respectively, the “**Israeli Eligible Employee**” and “**Purchase Rights**”).

1.3 This Appendix applies with respect to Purchase Rights granted under the ESPP Plan. The purpose of this Appendix is to establish certain rules and limitations applicable to Purchase Rights that may be granted under the ESPP Plan from time to time, in compliance with the securities and other applicable laws currently in force in the State of Israel. For Israeli tax purposes, such Purchase Rights are classified as options issued under the ESPP Plan. Except as otherwise provided by this Appendix, all grants made pursuant to this Appendix shall be governed by the terms of the ESPP Plan. This Appendix is applicable only to grants made after the Effective Date. This Appendix complies with, and is subject to the ITO, the ITO Rules and Section 102 (as such terms are defined below).

1.4 The ESPP Plan and this Appendix shall be read together. In any case of contradiction, whether explicit or implied, between the provisions of this Appendix and the ESPP Plan, the provisions of the ESPP Plan shall govern.

2. Definitions

Capitalized terms not otherwise defined herein shall have the meaning assigned to them in the ESPP Plan. The following additional definitions will apply to grants made pursuant to this Appendix:

“**Affiliate**” as used in this Appendix, shall mean any Parent or Subsidiary that is an “employing company” within the meaning of Section 102(a) of the ITO.

“**Controlling Shareholder**” as defined under Section 32(9) of the ITO, means an individual who prior to the grant or as a result of the exercise of any options under the ESPP Plan, holds or would hold, directly or indirectly, in his name or with a relative (as defined in the ITO) (i) 10% of the outstanding shares of the Company, (ii) 10% of the voting power of the Company, (iii) the right to hold or purchase 10% of the outstanding equity or voting power of the Company, (iv) the right to obtain 10% of the “profit” of the Company (as defined in the ITO), or (v) the right to appoint a Director.

“Eligible 102 Israeli Eligible Employee” an Israeli Eligible Employee who is an employee or is serving as a director of the Company or an Affiliate, who is not a Controlling Shareholder.

“ITA” means the Israeli Tax Authority.

“ITO” means the Israeli Income Tax Ordinance (New Version) 1961 and the rules, regulations, orders or procedures promulgated thereunder and any amendments thereto, including specifically the ITO Rules, all as may be amended from time to time.

“ITO Rules” means the Income Tax Rules (Tax Benefits in Share Issuance to Employees) 5763-2003.

“Non-Trustee Grant” means a Purchase Right granted to an Israeli Eligible Employee pursuant to Section 102(c) of the ITO and not held in trust by a Trustee.

“Section 102” means the provisions of Section 102 of the ITO, as amended from time to time.

“Section 3(i)” means Section 3(i) of the ITO, as amended from time to time.

“Shares” means Plan Shares issued upon the exercise of Purchase Rights under the ESPP Plan.

3. Non-Trustee Grant of Purchase Right

3.1 A grant of Purchase Rights to an Israeli Eligible Employee shall be made pursuant to Section 102(c) or Section 3(i) of the ITO.

3.2 Only Eligible 102 Israeli Eligible Employee may receive Non-Trustee Grants under this Appendix.

4. Terms And Conditions Of Non-Trustee Grants

4.1 Each grant under the ESPP Plan shall be subject to the relevant provisions of the ITO, the ITO Rules, Section 102 and any ruling obtained from the ITA in connection with the ESPP Plan, which shall be deemed an integral part of the such grant and shall prevail over any term contained in the ESPP Plan, this Appendix or any offering document that is not consistent therewith. Any provision of the ITO and any approvals by the ITA not expressly specified in this Appendix or any document evidencing a grant that are necessary to receive under the ITO, the ITO Rules and Section 102 in connection with grant under the ESPP Plan shall be binding on the Israeli Eligible Employee. The Israeli Eligible Employee granted a Purchase Offering under the ESPP Plan shall comply with the ITO provisions. For avoidance of doubt, it is reiterated that compliance with the ITO specifically includes compliance with the ITO Rules. Further, the Israeli Eligible Employee agrees to execute any and all documents which the Company and/or Affiliate may reasonably determine to be necessary in order to comply with the provision of any applicable law.

4.2 Shares issued upon an exercise of a Purchase Right shall be transferred to the Israeli Eligible Employee directly, provided that the Israeli Eligible Employee first complies with all

applicable provisions of the ESPP Plan, and all taxes which apply to the grant of the Purchase Right and exercise of the Purchase Rights were paid.

5. Tax Consequences

Any tax consequences arising from the grant of the Purchase Right or from exercise of the Purchase Right or from the sale of Shares issued upon an exercise of the Purchase Right, or from any other event or act (of the Company, and/or its Affiliates, or the Israeli Eligible Employee) hereunder, shall be borne solely by the Israeli Eligible Employee. The Company and/or its Affiliates shall withhold taxes according to the requirements under the applicable laws, rules, and regulations, including withholding taxes at source. Furthermore, the Israeli Eligible Employee shall agree to indemnify the Company and/or its Affiliates and hold them harmless against and from any and all liability for any such tax or interest or penalty thereon, including without limitation, liabilities relating to the necessity to withhold, or to have withheld, any such tax from any payment made to the Israeli Eligible Employee. The Company or any of its Affiliates may make such provisions and take such steps as it may deem necessary or appropriate for the withholding of all taxes required by law to be withheld with respect to Purchase Rights granted under the ESPP Plan and the sale of Shares issued upon an exercise of such Purchase Right, including, but not limited, to (i) deducting the amount so required to be withheld from any other amount then or thereafter payable to an Israeli Eligible Employee, and/or (ii) requiring an Israeli Eligible Employee to pay to the Company or any of its Affiliates the amount so required to be withheld as a condition of the issuance, delivery, distribution or release of any Share, and/or (iii) by causing the exercise of Purchase Right and/or the sale of Shares held by an Israeli Eligible Employee to cover such liability, up to the amount required to satisfy minimum statutory withholding requirements. In addition, the Israeli Eligible Employee will be required to pay any amount which exceeds the tax to be withheld and remitted to the tax authorities, pursuant to applicable tax laws, regulations and rules.

6. Guarantee

If an Eligible 102 Israeli Eligible Employee that holds Shares issued upon the exercise of Purchase Rights ceases to be employed by the Company or any Affiliate, such Israeli Eligible Employee shall extend to the Company and/or its Affiliate a security or guarantee for the payment of tax due at the time of sale of Shares to the satisfaction of the Company, all in accordance with the provisions of Section 102 of the ITO and the ITO Rules.

7. Governing Law and Jurisdiction

Notwithstanding any other provision of the ESPP Plan, with respect to Israeli Eligible Employees subject to this Appendix, (i) the ESPP Plan the Purchase Rights and Shares issued thereunder or in connection therewith shall be governed by, and interpreted in accordance with, the laws of the State of Israel applicable to contracts made and to be performed therein, and (ii) any contribution by Israeli Eligible Employees under the ESPP Plan by means of salary deduction shall be subject to the restrictions and limitations provided under applicable Israeli labor laws.

8. Securities Laws

Without derogation from the any provisions of the ESPP Plan, all Purchase Rights and Shares issued hereunder shall be subject to compliance with the Israeli Securities Law, 1968, and the rules and regulations promulgated thereunder.

* * *

AMENDMENT NO. 3 TO LEASE

This **AMENDMENT NO. 3 TO LEASE** ("Amendment") is dated as of June 22, 2017 (the "**Amendment Date**"), by and between **SANTA CLARA EFH LLC**, a Delaware limited liability company ("**Landlord**") and **PALO ALTO NETWORKS, INC.**, a Delaware corporation ("**Tenant**").

RECITALS

A. Santa Clara Property Owner I LLC (Landlord's predecessor in interest) and Tenant entered into that certain Lease dated as of May 28, 2015, as amended by Amendment No. 1 to Lease dated September 16, 2016, and as further amended by that certain Amendment No. 2 to Lease dated November 16, 2016 (all of the foregoing documents being defined herein collectively as the "**Lease**") for premises containing 290,082 rentable square feet of floor area, consisting of the entirety of one (1) building located in the City of Santa Clara, County of Santa Clara, State of California and defined in such Lease as "Building E" and all as more particularly described in the Lease;

B. Landlord and Tenant now desire to amend the Lease on the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

- 1. Definitions.** All capitalized terms used in this Amendment but not otherwise defined shall have the meanings assigned to them in the Lease.
- 2. Substantial Completion.** Landlord has timely delivered possession of the Leased Premises to Tenant "Substantially Complete," as defined in and required by Paragraph 2(c) of the Lease.
- 3. Performance of Tenant Improvement Work; Acceptance Of Possession.** Paragraph 2.5 of the Lease is hereby amended by adding the following sentence at the end thereof: "Tenant agrees to occupy the Leased Premises for the conduct of Tenant's business within thirty (30) days after the Lease Commencement Date, subject to delays due to Force Majeure."
- 4. Condition Precedent To Lease Amendment.** This Amendment and Landlord's and Tenant's obligations hereunder are subject to the receipt by Landlord, no later than fifteen (15) business days after the date hereof, of the Lender's Consent, as hereinafter defined. Landlord hereby agrees to use diligent efforts to obtain the Lender's Consent by such date; however, if Landlord does not receive the Lender's Consent by such date, this Amendment may be terminated, at Landlord's or Tenant's option, by written notice delivered to the other party within five (5) business days after the expiration of such fifteen (15) business day period, and, upon delivery of such notice, this Amendment shall be deemed terminated and of no further force or effect, and neither party shall have any further rights, obligations, or liabilities hereunder. As used herein, the term "Lender's Consent" means a written consent to this Amendment, in form reasonably satisfactory to Landlord and Tenant, executed by the holder of the promissory note secured by any deed of trust encumbering the fee interest in the real property of which the Leased Premises are a part.
- 5. Ratification.** The Lease, as amended by this Amendment, is hereby ratified by Landlord and Tenant and Landlord and Tenant hereby agree that the Lease, as so amended, shall continue in full force and effect.

6. Miscellaneous.

6.1 Voluntary Agreement. The parties have read this Amendment and the mutual releases contained in it, and on the advice of counsel they have freely and voluntarily entered into this Amendment.

6.2 Attorney's Fees. If either party commences an action against the other party arising out of or in connection with this Amendment, the prevailing party shall be entitled to recover from the non-prevailing party, reasonable attorney's fees and costs of suit.

6.3 Successors. This Amendment shall be binding on and inure to the benefit of the parties and their successors.

6.4 Counterparts. This Amendment may be signed in two or more counterparts. When at least one such counterpart has been signed by each party, this Amendment shall be deemed to have been fully executed, each counterpart shall be deemed to be an original, and all counterparts shall be deemed to be one and the same agreement.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Amendment as of the date first written above.

TENANT:

PALO ALTO NETWORKS, INC., a Delaware corporation

By: /s/ STEFFAN TOMLINSON
Steffan Tomlinson, Chief Financial Officer

LANDLORD:

Santa Clara EFH LLC,
a Delaware limited liability company

By: Santa Clara EFH REIT LLC,
a Delaware limited liability company,
its Sole Member

By: Santa Clara Campus Property Owner I LLC,
a Delaware limited liability company,
its Manager

By: Santa Clara Phase III REIT LLC,
a Delaware limited liability company,
its Sole Member

By: Santa Clara Campus Partners LLC,
a Delaware limited liability company,
its Manager

By: Menlo Equities Development Company IX LLC,
a California limited liability company,
its Manager

By: Menlo Equities V LLC,
a California limited liability company,
its Manager

By: Menlo Legacy Holdings, L.P.,
a California limited partnership,
its Managing Member

By: /s/ HENRY D. BULLOCK
Henry D. Bullock, President

AMENDMENT NO. 3 TO LEASE

This **AMENDMENT NO. 3 TO LEASE** ("Amendment") is dated as of June 22, 2017 (the "Amendment Date"), by and between **SANTA CLARA G LLC**, a Delaware limited liability company ("Landlord") and **PALO ALTO NETWORKS, INC.**, a Delaware corporation ("Tenant").

RECITALS

A. Santa Clara Property Owner I LLC (Landlord's predecessor in interest) and Tenant entered into that certain Lease dated as of October 7, 2015 (the "**Original Lease**"), as amended by Amendment No. 1 to Lease dated November 9, 2015 ("**Amendment No. 1**") and by Amendment No. 2 to Lease dated November 16, 2016 ("**Amendment No. 2**", and defined collectively with the Original Lease and Amendment No. 1 as the "**Lease**") for premises containing 309,559 rentable square feet of floor area, consisting of the entirety of one (1) building located in the City of Santa Clara, County of Santa Clara, State of California and defined in such Lease as "Building G," all as more particularly described in the Lease;

B. Landlord and Tenant now desire to amend the Lease on the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Definitions. All capitalized terms used in this Amendment but not otherwise defined shall have the meanings assigned to them in the Lease.

2. Lease Expiration Date. The definition of "Lease Expiration Date" set forth in Article 1 of the Lease is hereby deleted and replaced with the following:

Lease Expiration Date: July 31, 2028, unless earlier terminated by Landlord in accordance with the terms of this Lease, or extended by Tenant pursuant to Article 15.

3. Lease Commencement Date. Paragraph 2.3 of the Lease is hereby amended in its entirety to read as follows:

The term of this Lease shall begin, and the Lease Commencement Date shall be deemed to have occurred, on April 1, 2018 (the "**Lease Commencement Date**"). The term of this Lease shall in all events end on the Lease Expiration Date (as set forth in Article 1, as the same may be extended pursuant to Article 15 below). The Lease Term shall be that period of time commencing on the Lease Commencement Date and ending on the Lease Expiration Date (the "**Lease Term**").

4. Lease Commencement Date Certificate. Exhibit E attached to the Original Lease is hereby deleted.

5. Delivery of Possession.

(a) Paragraph 2.4 of the Lease is hereby amended in the following respects:

Amendment No. 3 to Building G Lease

- (i) The final sentence of Paragraph 2.4(a) is hereby deleted.
- (ii) Paragraph 2.4(b) is hereby deleted.
- (iii) The first sentence of Paragraph 2.4(c) is hereby amended in its entirety to read as follows:

In addition, Landlord shall deliver possession of the Leased Premises and Parking Structure - P2 Substantially Complete (as defined below) on the Lease Commencement Date. As used herein, the term “**Substantially Complete**” means:

- (iv) The final paragraph of Paragraph 2.4(c) is hereby amended in its entirety to read as follows:

If Landlord is unable to so deliver possession of the Leased Premises to Tenant in the agreed condition on April 1, 2018 (or May 31, 2018 with respect to Parking Structure-P2), as such dates may be extended, if applicable, Landlord shall not be in default under this Lease, nor shall this Lease be void, voidable or cancelable by Tenant, except solely to the extent provided below in this Paragraph 2.4(c). If Landlord is unable to deliver possession of Parking Structure-P2 in the agreed condition on or before May 31, 2018 (as such date may be extended, if applicable), Landlord shall be afforded a delivery grace period of one hundred twenty (120) days after such date (as extended, if applicable). If Landlord is unable to deliver possession of Parking Structure-P2 in the agreed condition to Tenant within the described delivery grace period (including any extension thereof by reason of Tenant Delays and up to ninety (90) days of Force Majeure), then, subject to the final sentence of this Paragraph 2.4(c), Tenant shall be entitled to terminate this Lease by written notice delivered to Landlord within ten (10) days after the expiration of the delivery grace period (as extended, if applicable), and in no event shall Landlord be liable in damages to Tenant for such delay. Notwithstanding the foregoing, if Landlord successfully completes Parking Structure-P2 in the agreed condition on or prior to the Lease Commencement Date but it is damaged by casualty prior to the Lease Commencement Date, then the foregoing right of termination shall be void and Tenant's right to terminate, if any, for late delivery of Parking Structure-P2 shall be solely as set forth in Paragraph 10.4 below.

- (v) Paragraph 2.4(e) is hereby deleted.
- (vi) Paragraph 2.4(f) is hereby deleted.

(b) Notwithstanding anything to the contrary in the Lease, Landlord shall not deliver, and shall not be required to deliver, possession of the Leased Premises or Parking Structure P-2 to Tenant prior to the Lease Commencement Date of April 1, 2018, and Tenant shall not have the right to access the Lease Premises prior to such date.

6. **Milestones.** Paragraph 2.8 of the Lease is hereby amended in the following respects:

Amendment No. 3 to Building G Lease

- (a) Paragraph 2.8(b) is hereby amended in its entirety to read as follows:

Notwithstanding anything to the contrary in the Work Letter or this Lease, Tenant shall have the right, in its sole discretion, to terminate the Lease if Landlord fails to accomplish Substantial Completion of Parking Structure P-2 by the applicable date set forth above (or in Paragraph 2.4, as applicable, after taking into account applicable extension and grace periods set forth therein). Tenant may exercise its right to terminate the Lease pursuant to this Paragraph 2.8(b) by delivery to Landlord of written notice of such exercise within ten (10) days following the applicable milestone deadline set forth above or in Paragraph 2.4, as applicable; provided, however, that if the applicable milestone is met before Landlord's receipt of such notice from Tenant, the applicable notice shall be deemed rescinded.

- (b) Paragraph 2.8(c) is hereby amended in its entirety to read as follows:

If Landlord is unable to cause Substantial Completion of Parking Structure - P2 to be Substantially Completed by May 31, 2018 (as such date may be extended due to Tenant Delays and up to ninety (90) days of Unavoidable Delays), then, in addition to Tenant's other rights and remedies under this Lease, the date Tenant is otherwise obligated to commence payment of Base Monthly Rent shall be delayed by one day for each day that Substantial Completion is delayed beyond such dates (the "**Base Rent Penalty**"). Notwithstanding the foregoing, if despite using commercially reasonable efforts to achieve Substantial Completion, Landlord is unable to cause Substantial Completion of Parking Structure-P2 to occur on or before December 31, 2018 (as such date may be extended due to delays caused by Tenant or any Tenant Parties and up to ninety (90) days of Unavoidable Delays), then Landlord shall have the right to either (i) terminate the foregoing Base Rent Penalty or (ii) allow the Base Rent Penalty to continue until Substantial Completion of the Landlord's Work occurs. Landlord may exercise the foregoing election by delivery to Tenant of written notice of such exercise within ten (10) days following such date. If Landlord elects to terminate the Base Rent Penalty as aforesaid, then Tenant shall have the right to terminate this Lease by delivery to Landlord of written notice of such exercise within ten (10) days following receipt of Landlord's written election notice. "**Unavoidable Delays**" means any prevention, delay or stoppage due to acts of God, natural disasters, acts of war, terrorist acts, civil commotions, moratoria, fire or other casualty.

7. **Base Monthly Rent.**

- (a) The definition of Base Monthly Rent set forth in Article 1 of the Original Lease is hereby deleted and replaced with the following:

Base Monthly Rent: The term "**Base Monthly Rent**" shall mean the following:

Amendment No. 3 to Building G Lease

Period	Base Monthly Rent
Months 1-18	\$0.00 (abated)
Months 19-36	\$983,736.60
Months 37-48	\$1,005,373.48
Months 49-60	\$1,025,038.99
Months 61-72	\$1,045,097.82
Months 73-84	\$1,065,557.82
Months 85-96	\$1,086,427.02
Months 97-108	\$1,107,713.60
Months 109-120	\$1,129,425.92
Months 121-124	\$1,151,572.48

(b) The foregoing schedule of Base Monthly Rent includes an adjustment to incorporate the Re-Measured RSF as defined in Amendment No. 2 and the further adjustment contemplated by Paragraph 2 of Amendment No. 1.

8. Landlord's Work. The Work Letter is hereby amended by deleting Exhibit A-1 (which was attached as an exhibit to Amendment No. 1) and replacing it with **Exhibit A-1** attached to this Amendment.

9. Lump Sum Payment Amendment. Exhibit F attached to Amendment No. 2 is hereby deleted and replaced with **Exhibit F** attached to this Amendment.

10. Condition Precedent To Lease Amendment. This Amendment and Landlord's and Tenant's obligations hereunder are subject to the receipt by Landlord, no later than fifteen (15) business days after the date hereof, of the Lender's Consent, as hereinafter defined. Landlord hereby agrees to use diligent efforts to obtain the Lender's Consent by such date; however, if Landlord does not receive the Lender's Consent by such date, this Amendment may be terminated, at Landlord's or Tenant's option, by written notice delivered to the other party within five (5) business days after the expiration of such fifteen (15) business day period, and, upon delivery of such notice, this Amendment shall be deemed terminated and of no further force or effect, and neither party shall have any further rights, obligations, or liabilities hereunder. As used herein, the term "Lender's Consent" means a written consent to this Amendment, in form reasonably satisfactory to Landlord and Tenant, executed by the holder of the promissory note secured by any deed of trust encumbering the fee interest in the real property of which the Leased Premises are a part.

11. Ratification. The Lease, as amended by this Amendment, is hereby ratified by Landlord and Tenant and Landlord and Tenant hereby agree that the Lease, as so amended, shall continue in full force and effect.

Amendment No. 3 to Building G Lease

12. Miscellaneous.

12.1 Voluntary Agreement. The parties have read this Amendment and the mutual releases contained in it, and on the advice of counsel they have freely and voluntarily entered into this Amendment.

12.2 Attorney's Fees. If either party commences an action against the other party arising out of or in connection with this Amendment, the prevailing party shall be entitled to recover from the non-prevailing party, reasonable attorney's fees and costs of suit.

12.3 Successors. This Amendment shall be binding on and inure to the benefit of the parties and their successors.

Amendment No. 3 to Building G Lease

12.4 Counterparts. This Amendment may be signed in two or more counterparts. When at least one such counterpart has been signed by each party, this Amendment shall be deemed to have been fully executed, each counterpart shall be deemed to be an original, and all counterparts shall be deemed to be one and the same agreement.

IN WITNESS WHEREOF, Landlord and Tenant have executed this Amendment as of the date first written above.

TENANT:

PALO ALTO NETWORKS, INC., a Delaware corporation

By: /s/ STEFFAN TOMLINSON

Steffan Tomlinson, Chief Financial Officer

LANDLORD:

Santa Clara G LLC,
a Delaware limited liability company

By: Santa Clara G REIT LLC,
a Delaware limited liability company,
its Sole Member

By: Santa Clara Campus Property Owner I LLC,
a Delaware limited liability company,
its Manager

By: Santa Clara Phase III REIT LLC,
a Delaware limited liability company,
its Sole Member

By: Santa Clara Campus Partners LLC,
a Delaware limited liability company,
its Manager

By: Menlo Equities Development Company IX LLC,
a California limited liability company,
its Manager

By: Menlo Equities V LLC,
a California limited liability company,
its Manager

By: Menlo Legacy Holdings, L.P.,
a California limited partnership,
its Managing Member

By: /s/ HENRY D. BULLOCK
Henry D. Bullock, President

EXHIBIT A-1

**The Campus@3333 Scott
Landlord's Warm Shell
8-Story Base Building & Core
(Restrooms, Stairwells, HVAC, Elevators, Electrical/MPOE)**

GENERAL DESCRIPTION: Landlord's shell and core will comply with all codes and regulations, including fire, building, Title 24 and ADA. Building will be LEED Silver. The Approved Plans include the following:

- The building is a steel frame structure with glass, metal and thin-shell concrete window wall system.
- Interior brace frames with exterior moment frames.
- Glass/metal frame entry doors.
- Roof screen is included.
- 15' floor-to-floor clearance on ground floor and 14' on upper floors to allow for an 11'+/- ceiling height on the ground floor and a 10' +/- finished ceiling on the upper floors.
- Three stairs. Center stair to be open between floors 1-4 and floors 5-8.
- 15mil Stego vapor barrier installed under building slabs.
- Ground floor and upper floor elevator lobbies to be completed by Tenant as part of TIs.

CONCRETE FLOORS

- Floor flatness/levelness consistent with ASTM E1155/E 1155M.
- The floors will be designed for structural loading capability that can accommodate the placement of furnishings, fixtures and equipment that is consistent with the needs of a typical office tenant (live load of 100psf), except structural components added for high density loads due to upsized rooftop HVAC equipment.

EXTERIOR GLASS

- Exterior glass Title 24 compliant, insulated, free from scratches, nicks, cracks, marring and the intrusion of weather.

ELEVATORS

- One 4,000lb and four 3,500lb capacity Mitsubishi Electric traction passenger elevators with a rated speed of 350fpm provided.
- Center opening doors with 9'-3" cab finished ceiling height.
- Finished interior cabs, except floors, which will be finished by Tenant to match Tenant's ground floor lobby.
- All elevator cars, lobby call lanterns and call buttons in compliance with all codes and regulations.
- One 4,000lb 2-stop hydraulic freight elevator.
- No elevator cars security card readers; part of TIs.

PERIMETER CONDITIONS AND BUILDING CORE (restrooms, elevators, stairwells and electrical rooms)

- Lights, finished walls, ceiling and floor tile provided in restrooms and exit corridors only; lights and unfinished walls in electrical rooms. Toilet exhaust at restrooms included. IT closets are part of TI construction except ground floor MPOE room.

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- Code required exit stairwells with painted walls, finished ceilings, handrails, lights and noise reducing epoxy sealed floors stairs and landings The center stairwell is open with exposed steel and cable railings; additional finishes installed by Tenant with TIs.
- Exposed window wall system. Completed window assembly with painted metal frames.
- Exterior building envelope insulation as per Title 24, roof insulation and firesafing are included. No drywall is included except in the core areas. Core walls are framed, drywalled and fire taped finish.
- Code compliant paint grade finished wood and metal doors, complete with frame, trim and hardware, installed at all stairwells, toilet rooms and service areas. Finish mutually agreed to by Tenant and Landlord. Additional double exit doors in Building G at grade. Intumescent paint in lieu of fireproofing on steel beams/columns and center open stairwell, mutually agreed to by Landlord and Tenant.
- Code compliant temporary ground floor construction office and storage area (excluded from definition of "Substantially Complete").

PERIMETER WINDOW COVERINGS

Tenant shall install window blinds and/or shades as part of TIs, subject to Landlord approval.

TOILET ROOMS

- Women's and men's toilet rooms designed and constructed in compliance with current code requirements, laws and recommendations for size and quantity, including the Americans with Disabilities Act/Title 24, except that Landlord will provide two additional toilet stalls and one additional sink per restroom. The design and finish, mutually approved by Landlord and Tenant, include the following:
 - Water (hot and cold) shall be provided for all toilet rooms.
 - Lavatory counters shall have high quality solid surface tops with recessed lavatories.
 - All faucets shall have auto-sensors.
 - Code required wet walls shall be finished with full height ceramic tile.
 - Includes floor drains.
 - The ceilings shall be painted with semi-gloss paint.
 - Toilet partitions shall be floor mounted; baked enamel or P-lam.
 - Urinal partitions shall be wall mounted.
 - Low flow toilets and urinals shall be wall mounted in all restrooms.
 - Code compliant lighting only.
- All fixtures are porcelain and ADA compliant.
- Accessories include:
 - Recessed seat cover dispenser
 - Recessed paper towel dispenser/waste receptacles
 - Recessed feminine napkin vendor
 - Recessed mounted roll toilet tissue dispensers
 - Handicap grab bar as required by code
 - Lavatory soap dispensers

WASTE WATER AND VENT SYSTEM (PLUMBING)

- One cold water line, two hot water lines, a sanitary waste and vent on every floor for Tenant's use, size to be mutually determined. All plumbing required for TIs, including any break areas, to be installed by Tenant as part of TIs.

Amendment No. 3 to Building G Lease

- An ADA accessible drinking water refrigerated fountain installed on each floor. Domestic water booster pump, if required.
- Underslab plumbing to support TIs, mutually agreed by Landlord and Tenant.
- Underground grease interceptor for (2,000gal).

HVAC SYSTEM

- Built-up HVAC system: 760 tons of cooling with two rooftop chillers and two cooling towers plus roof top space for an additional chiller and cooling tower.
- Supply and exhaust ductwork and air outlets for warm shell "core" areas installed by Landlord.
- Rooftop boilers and hot water line vertically distributed and valved to each floor included.
- Stairwell pressurization fans with vertical distribution as required to meet code.
- Fire/smoke control system inclusive of smoke removal fans, damper and overriding controls at fire control room.
- Tenant to install all additional exhaust and HVAC systems related to TIs, including connecting to the base building energy management system.

SUPPLEMENTAL and 24 hour HVAC

- Supplied by Tenant in TI construction. Landlord to provide a rooftop equipment pad within Landlord's roof screen area for Tenant's supplemental HVAC units or other equipment.

ELECTRICAL AND POWER SYSTEM

- 12KV primary service with 3,000amps for typical office use plus infrastructure for an additional 3,000amps for non-standard office use per Approved Plans.
- Power distribution system with vertical bus duct riser feeding lighting and power bus circuit breakers at each floor and rooftop HVAC.
- Emergency distribution system consisting of standby generator, distribution board at ground floor with life safety and legally required automatic transfer switches, distribution boards and feeders.
- Step-down transformers in electrical rooms on all upper floors provided.
- Landlord to provide switchgear and panels in the main electrical room sufficient to distribute power to accommodate the core, landscape lighting, HVAC, elevators and fire alarm.
- Power and lighting per 2013 Title 24 Requirements
- Receptacles provided in the Landlord installed restrooms and exit corridors.
- Downlights and specialty lighting provided in the Landlord installed restrooms and stairs.
- Each building is to be separately metered. Landlord will coordinate with the utility companies to have meter installed at Landlord's cost.
- Emergency Generator as required by code.
- No Backup Power Supply supplied by Landlord.
- Emergency supply and exhaust fan service.
- Emergency elevator service.
- Emergency fire pump and tank per code.
- Egress lighting to be fed by generator.
- DAS system.

FIRE & LIFE SAFETY SYSTEMS

- Major fire line throughout the building with sprinkler heads pointing up in unfinished interior space. Complete sprinkler assembly in Landlord installed restrooms and stairwells. Fire monitoring system for base building with core; adequately sized to allow tenant to expand as part of TIs.
- Includes fire pump and water tanks, per code.
- Monitoring provided for sprinklers, elevators and HVAC base building and core systems per code. Tenant to expand monitoring for TI.

Amendment No. 3 to Building G Lease

- Landlord to provide required Fire/Life Safety systems per code.

SECURITY ACCESS SYSTEMS

- None provided. Supplied by Tenant in TI construction if desired by Tenant. Landlord to provide rough-in provisions at locations requested by Tenant.

TELECOMMUNICATION

- Landlord will provide four 4" conduits into the ground floor MPOE room in each building from central underground telecom vaults on site which all service providers can access.
- Tenant is responsible for distribution of its teledata/IT from the MPOE/IDF rooms to rest of the building.
- Landlord will provide roof top space and conduit from the IDF room for Tenant's satellite dish. Tenant is responsible for installing its satellite dish.

PARKING

- Landlord is to install all surface parking and Parking Structure-P2 as shown on the Site Plan.

LANDSCAPE

- Landlord is to provide landscape and hardscape at all common areas surrounding the building and Parking Structure-P2 as shown on the Approved Plans.
- Bike storage areas will be provided in Parking Structure – P2.
- The landscaped areas are to be planted such that areas containing flowers shall mature within one year of initial occupancy. Areas planted with shrubs and trees shall mature within two years of initial occupancy.
- All landscaped path of pedestrian travel areas to be lighted and irrigated with electrically controlled automatic systems.

LOADING DOCK

- One depressed and one grade level loading dock between Buildings G and H.
- No trash compactors.

ELECTRIC VEHICLE STATIONS

- Conduit from Parking Structure – P2 electrical room to 75 dual EV stations (150 parking spaces) in Parking Structure – P2.

EXHIBIT F

FORM OF LUMP SUM PAYMENT AMENDMENT

AMENDMENT NO. __ TO LEASE

This AMENDMENT TO LEASE (“**Amendment**”) is dated as of this __ day of _____, 201_ (the “**Amendment Date**”), by and between _____ LLC, a California limited liability company (“**Landlord**”), and _____, a _____ (“**Tenant**”).

RECITALS

A. Landlord and Tenant entered into that certain Lease dated as of _____, 201_ [as amended by that certain _____ dated as of _____] (collectively, the “**Lease**”) for premises located in the City of Santa Clara, County of Santa Clara, State of California, commonly known as or otherwise described as _____ Street, Suite _____, _____, California, comprised of approximately _____ rentable square feet of floor area as more particularly described in the Lease; and

B. Landlord has exercised the Lump Sum Payment Option as defined in Paragraph 3.1(b) of the Lease.

C. Landlord and Tenant now desire to amend the Lease to set forth the on the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Definitions.** All capitalized terms used in this Amendment but not otherwise defined shall have the meanings assigned to them in the Lease.
2. **Lump Sum Payment Date.** The Lump Sum Payment Date is _____, 201_.
3. **Base Monthly Rent Start Date.** The Base Monthly Rent Start Date is _____, 201_.
4. **Abated Rent Lump Sum Payment.** The amount of the Abated Rent Lump Sum Payment is _____ Dollars (\$_____).
5. **Base Monthly Rent.** The schedule of Base Monthly Rent, as set forth in Article 1 of the Lease, is hereby amended in its entirety to read as follows:

The term “**Base Monthly Rent**” shall mean the following:

Period	Base Monthly Rent
Months __ - __	\$0.00

Amendment No. 3 to Building G Lease

Months **-36	\$983,736.60
Months 37-48	\$1,005,373.48
Months 49-60	\$1,025,038.99
Months 61-72	\$1,045,097.82
Months 73-84	\$1,065,557.82
Months 85-96	\$1,086,427.02
Months 97-108	\$1,107,713.60
Months 109-120	\$1,129,425.92
Months 121-124	\$1,151,572.48

**[DRAFTING NOTE: COMPLETE TO CORRESPOND WITH BASE MONTHLY RENT START DATE AND CONFORM THE FIRST ROW IN THE SCHEDULE; IF BASE MONTHLY RENT START DATE IS MONTH 1, DELETE THE FIRST ROW IN THE SCHEDULE.]

6. Ratification. The Lease, as amended by this Amendment, is hereby ratified by Landlord and Tenant and Landlord and Tenant hereby agree that the Lease, as so amended, shall continue in full force and effect.

7. Miscellaneous.

7.1 Voluntary Agreement. The parties have read this Amendment and the mutual releases contained in it, and on the advice of counsel they have freely and voluntarily entered into this Amendment.

7.2 Attorney's Fees. If either party commences an action against the other party arising out of or in connection with this Amendment, the prevailing party shall be entitled to recover from the non-prevailing party, reasonable attorney's fees and costs of suit.

7.3 Successors. This Amendment shall be binding on and inure to the benefit of the parties and their successors.

7.4 Counterparts. This Amendment may be signed in two or more counterparts. When at least one such counterpart has been signed by each party, this Amendment shall be deemed to have been fully executed, each counterpart shall be deemed to be an original, and all counterparts shall be deemed to be one and the same agreement.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

Amendment No. 3 to Building G Lease

IN WITNESS WHEREOF, Landlord and Tenant have executed this Amendment as of the date first written above.

TENANT:

PALO ALTO NETWORKS, INC., a Delaware corporation

By: _____
Mark D. McLaughlin, Chairman and CEO

LANDLORD:

SANTA CLARA CAMPUS PROPERTY OWNER I LLC, a Delaware limited liability company

By: Santa Clara Phase III REIT LLC,
a Delaware limited liability company,
its Sole Member

By: Santa Clara Campus Partners LLC,
a Delaware limited liability company,
its Manager

By: Menlo Equities Development Company IX
LLC,
a California limited liability company,
its Manager

By: Menlo Equities V LLC,
a California limited liability company,
its Manager

By: Menlo Legacy Holdings,
L.P., a California limited
partnership,
its Managing Member

By: _____
Henry D. Bullock, President

AMENDMENT NO. 4 TO LEASE

This **AMENDMENT NO. 4 TO LEASE** (“**Amendment**”) is dated as of June 22, 2017 (the “**Amendment Date**”), by and between **SANTA CLARA EFH LLC**, a Delaware limited liability company (“**Landlord**”) and **PALO ALTO NETWORKS, INC.**, a Delaware corporation (“**Tenant**”).

RECITALS

A. Santa Clara Property Owner I LLC (Landlord’s predecessor in interest) and Tenant entered into that certain Lease dated as of May 28, 2015, as amended by Amendment No. 1 to Lease dated November 9, 2015, as further amended by that certain Amendment No. 2 to Lease dated September 16, 2016, and as further amended by that certain Amendment No. 3 to Lease dated November 16, 2016 (all of the foregoing documents being defined herein collectively as the “**Lease**”) for premises containing 340,923 rentable square feet of floor area, consisting of the entirety of the two (2) buildings located in the City of Santa Clara, County of Santa Clara, State of California and defined in such Lease as “**Building F**” and “**Amenities Building H,**” all as more particularly described in the Lease;

B. Landlord and Tenant now desire to amend the Lease on the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

- 1. Definitions.** All capitalized terms used in this Amendment but not otherwise defined shall have the meanings assigned to them in the Lease.
- 2. Substantial Completion.** Landlord has timely delivered possession of the Leased Premises to Tenant “Substantially Complete,” as defined in and required by Paragraph 2(c) of the Lease.
- 3. Performance of Tenant Improvement Work; Acceptance Of Possession.** Paragraph 2.5 of the Lease is hereby amended by adding the following sentence at the end thereof: “Tenant agrees to occupy the Leased Premises for the conduct of Tenant’s business within thirty (30) days after the Lease Commencement Date, subject to delays due to Force Majeure.”
- 4. Condition Precedent To Lease Amendment.** This Amendment and Landlord’s and Tenant’s obligations hereunder are subject to the receipt by Landlord, no later than fifteen (15) business days after the date hereof, of the Lender’s Consent, as hereinafter defined. Landlord hereby agrees to use diligent efforts to obtain the Lender’s Consent by such date; however, if Landlord does not receive the Lender’s Consent by such date, this Amendment may be terminated, at Landlord’s or Tenant’s option, by written notice delivered to the other party within five (5) business days after the expiration of such fifteen (15) business day period, and, upon delivery of such notice, this Amendment shall be deemed terminated and of no further force or effect, and neither party shall have any further rights, obligations, or liabilities hereunder. As used herein, the term “Lender’s Consent” means a written consent to this Amendment, in form reasonably satisfactory to Landlord and Tenant, executed by the holder of the promissory note secured by any deed of trust encumbering the fee interest in the real property of which the Leased Premises are a part.
- 5. Ratification.** The Lease, as amended by this Amendment, is hereby ratified by Landlord and Tenant and Landlord and Tenant hereby agree that the Lease, as so amended, shall continue in full force and effect.

6. Miscellaneous.

6.1 Voluntary Agreement. The parties have read this Amendment and the mutual releases contained in it, and on the advice of counsel they have freely and voluntarily entered into this Amendment.

6.2 Attorney's Fees. If either party commences an action against the other party arising out of or in connection with this Amendment, the prevailing party shall be entitled to recover from the non-prevailing party, reasonable attorney's fees and costs of suit.

6.3 Successors. This Amendment shall be binding on and inure to the benefit of the parties and their successors.

6.4 Counterparts. This Amendment may be signed in two or more counterparts. When at least one such counterpart has been signed by each party, this Amendment shall be deemed to have been fully executed, each counterpart shall be deemed to be an original, and all counterparts shall be deemed to be one and the same agreement.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Amendment as of the date first written above.

TENANT:

PALO ALTO NETWORKS, INC., a Delaware corporation

By: /s/ STEFFAN TOMLINSON
Steffan Tomlinson, Chief Financial Officer

LANDLORD:

Santa Clara EFH LLC,
a Delaware limited liability company

By: Santa Clara EFH REIT LLC,
a Delaware limited liability company,
its Sole Member

By: Santa Clara Campus Property Owner I LLC,
a Delaware limited liability company,
its Manager

By: Santa Clara Phase III REIT LLC,
a Delaware limited liability company,
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a Delaware limited liability company,
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By: Menlo Equities Development Company IX LLC,
a California limited liability company,
its Manager

By: Menlo Equities V LLC,
a California limited liability company,
its Manager

By: Menlo Legacy Holdings, L.P.,
a California limited partnership,
its Managing Member

By: /s/ HENRY D. BULLOCK
Henry D. Bullock, President

**LIST OF SUBSIDIARIES
OF
PALO ALTO NETWORKS, INC.**

Name of Subsidiary	Jurisdiction of Incorporation
Palo Alto Networks (Australia) Pty Ltd	Australia
Palo Alto Networks (Brasil) Ltda.	Brazil
Palo Alto Networks (Canada) Inc.	Canada
Palo Alto Networks (Germany) GmbH	Germany
Palo Alto Networks (Malaysia), LLC	Delaware
Palo Alto Networks (Mexico) S. de R.L. de C.V.	Mexico
Palo Alto Networks (Netherlands) B.V.	Netherlands
Palo Alto Networks (Norway) AS	Norway
Palo Alto Networks (Singapore) PTE. LTD.	Singapore
Palo Alto Networks (UK) Limited	United Kingdom
Palo Alto Networks Belgium B.V.B.A.	Belgium
Palo Alto Networks FZ LLC	United Arab Emirates
Palo Alto Networks K.K. (Kabushiki Kaisha)	Japan
Palo Alto Networks International, Inc.	Delaware
Palo Alto Networks Korea, Ltd.	South Korea
Palo Alto Networks, L.L.C.	Delaware
PAN C.V.	Netherlands
PAN LLC	Delaware
Cyvera Ltd., d/b/a Palo Alto Networks (Israel) Ltd.	Israel
Palo Alto Networks (Israel Services) Ltd.	Israel
Cyvera, Inc.	Delaware
Palo Alto Networks (India) Private Limited	India
Palo Alto Networks Holding B.V.	Netherlands
Palo Alto Networks (Singapore) Holding Company Pte. Ltd.	Singapore
Palo Alto Networks (Italy) S.R.L	Italy
PAN II LLC	Delaware
Palo Alto Networks (Switzerland) GmbH	Switzerland
Palo Alto Networks (Iberia), S.L.	Spain
Palo Alto Networks (RUS) LLC	Russia
CirroSecure, Inc.	Delaware
Palo Alto Networks (Czech) S.R.O.	Czech Republic
Palo Alto Networks Denmark ApS	Denmark
Palo Alto Security Limited	Ireland
Palo Alto Networks Saudi Arabian Limited Company	Saudi Arabia
Palo Alto Networks (EU) B.V.	Netherlands
Palo Alto Networks (GEO) B.V.	Netherlands
LightCyber Ltd.	Israel
LightCyber B.V.	Netherlands
LightCyber, Inc.	Delaware
Palo Alto Networks Management, LLC	Delaware
Palo Alto Networks Venture Fund, LLC	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement on Form S-8 No. 333-182762 pertaining to the 2005 Equity Incentive Plan, 2012 Equity Incentive Plan and the 2012 Employee Stock Purchase Plan of Palo Alto Networks, Inc. and
- (2) Registration Statements on Form S-8 No. 333-191340, 333-198859, 333-207003, and 333-213547 pertaining to the 2012 Equity Incentive Plan and the 2012 Employee Stock Purchase Plan of Palo Alto Networks, Inc.;

of our reports dated September 7, 2017, with respect to the consolidated financial statements of Palo Alto Networks, Inc. and the effectiveness of internal control over financial reporting of Palo Alto Networks, Inc. included in this Annual Report (Form 10-K) of Palo Alto Networks, Inc. for the year ended July 31, 2017.

/s/ Ernst & Young LLP

San Jose, California
September 7, 2017

**CERTIFICATION PURSUANT TO SECTION 302(a)
OF THE SARBANES-OXLEY ACT OF 2002**

I, Mark D. McLaughlin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Palo Alto Networks, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ MARK D. MCLAUGHLIN

Mark D. McLaughlin
Chief Executive Officer and Director

Date: September 7, 2017

**CERTIFICATION PURSUANT TO SECTION 302(a)
OF THE SARBANES-OXLEY ACT OF 2002**

I, Steffan C. Tomlinson, certify that:

1. I have reviewed this Annual Report on Form 10-K of Palo Alto Networks, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ STEFFAN C. TOMLINSON

Steffan C. Tomlinson
Chief Financial Officer

Date: September 7, 2017

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Mark D. McLaughlin, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Palo Alto Networks, Inc. for the fiscal year ended July 31, 2017, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Palo Alto Networks, Inc.

/s/ MARK D. MCLAUGHLIN

Mark D. McLaughlin

Chief Executive Officer and Director

Date: September 7, 2017

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Steffan C. Tomlinson, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Palo Alto Networks, Inc. for the fiscal year ended July 31, 2017, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Palo Alto Networks, Inc.

/s/ STEFFAN C. TOMLINSON

Steffan C. Tomlinson
Chief Financial Officer

Date: September 7, 2017

