

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

Form 10-K

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

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended September 30, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission File Number 000-26041

F5 Networks, Inc.

(Exact name of Registrant as specified in its charter)

WASHINGTON

(State or other jurisdiction of
incorporation or organization)

91-1714307

(I.R.S. Employer
Identification No.)

401 Elliott Ave West
Seattle, Washington 98119
(Address of principal executive offices)

(206) 272-5555

(Registrant's telephone number, including area code)

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

Title of Each Class

Common stock, no par value

Name of Each Exchange on Which Registered

NASDAQ Global Select Market

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 is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Smaller reporting company

Emerging growth company

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

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

As of March 31, 2018, the aggregate market value of the Registrant's Common Stock held by non-affiliates of the Registrant was \$8,818,001,249 based on the closing sales price of the Registrant's Common Stock on the NASDAQ Global Select Market on that date.

As of November 15, 2018, the number of shares of the Registrant's common stock outstanding was 60,627,214.

DOCUMENTS INCORPORATED BY REFERENCE

Information required in response to Part III of this Form 10-K (Items 10, 11, 12, 13 and 14) is hereby incorporated by reference to the specified portions of the Registrant's Definitive Proxy Statement for the Annual Shareholders Meeting for fiscal year 2018, which Definitive Proxy Statement shall be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days of the end of the fiscal year to which this Report relates.

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F5 NETWORKS, INC.
ANNUAL REPORT ON FORM 10-K
For the Fiscal Year Ended September 30, 2018

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Trademarks and Tradenames

AAM, Access Policy Manager, Advanced Client Authentication, Advanced Firewall Manager, Advanced Routing, Advanced WAF Launchpad, Advanced WAF, Advanced Web Application Firewall, AFM, Anti-Bot Mobile (SDK), APM, Application Acceleration Manager, Application Security Manager, Applications without Constraints, ARX, AskF5, ASM, ASPEN MESH, BIG-IP, BIG-IP EDGE GATEWAY, BIG-IP iControl, BIG-IQ, Cloud Extender, Clustered Multiprocessing, CMP, COHESION, Data Manager, DC (DESIGN), DDoS Frontline, DDoS Hybrid Defender, DDoS SWAT, DevCentral, DNS Express, DSC, DSI, Edge Client, Edge Gateway, Edge Mobile, Edge Mobility, Edge Portal, ELEVATE, EM, ENGAGE, Enterprise Manager, F5, F5 Access, F5 Access Manager, F5 (Design), F5 Agility, F5 Application IQ, F5 Certified (Design), F5 Elite, F5 iApps, F5 iControl, F5 Labs, F5 Labs (and Design), F5 LINK CONTROLLER, F5 NETWORKS, F5 Ready, F5 SalesXchange Design, F5 Synthesis (Design), f5 Synthesis (in image), F5 Synthesis (in running text/headings), F5 TechXchange Design, F5 TMOS, Fast Application Proxy, Fast Cache, FCINCO, Global Traffic Manager, GTM, GUARDIAN, Herculon, HSB (High Speed Bridge), iApps, iApps LX, IBR, iCall, iControl, iControl LX, iHealth, Intelligent Browser Referencing, Intelligent Compression, IPv6 Gateway, iQuery, iRules, iRules LX, iRules OnDemand, iSeries, iSession, iWorkflow, L7 Rate Shaping, LC, Link Controller, Local Traffic Manager, LTM, Message Security Manager, MobileSafe, MSM, OneConnect, Packet Velocity, PEM, Point Load Balancer, Policy Enforcement Manager, Protocol Security Manager, PSM, Ready Defense, Real Traffic Policy Builder, SalesXchange, ScaleN, SDAS, SDC, Signaling Delivery Controller, Silverline, Silverline Threat Intelligence, SIRT, Software Defined Application Services, Solutions for an application world, SSL Acceleration, SSL Everywhere, SSL Orchestrator, StrongBox, SuperVIP, SYN Check, SYNTHESIS, TCP Express, TDR, TechXchange, TMOS, Traffic Management Operating System, Traffic, Traffic Design, TrainingPass, Transparent Data Reduction, TurboFlex, UNITY, V Versafe Design, VAULT, vCMP, VE F5 Design, Versafe, VIPRION, Virtual Clustered Multiprocessing, WAF Express, We Make Apps Go, We Make Apps Go Faster. Safer. Smarter., We Make Apps Go Faster. Safer. Smarter. Design, WebSafe, and ZoneRunner are trademarks or service marks of F5 Networks, Inc., or its subsidiaries in the U.S. and other countries. Any other trademarks, service marks and/or trade names appearing in this document are the property of their respective owners.

Unless the context otherwise requires, in this Annual Report on Form 10-K, the terms “F5 Networks,” “the Company,” “we,” “us,” and “our” refer to F5 Networks, Inc. and its subsidiaries. Our fiscal year ends on September 30, and fiscal years are referred to by the calendar year in which they end. For example, “fiscal year 2018” and “fiscal 2018” refer to the fiscal year ended September 30, 2018.

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. These statements include, but are not limited to, statements about our plans, objectives, expectations, strategies, intentions or other characterizations of future events or circumstances and are generally identified by the words “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “estimates,” and similar expressions. These forward-looking statements are based on current information and expectations and are subject to a number of risks and uncertainties. Our actual results could differ materially and adversely from those expressed or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed under “Item 1A. Risk Factors” below and in other documents we file from time to time with the Securities and Exchange Commission. We assume no obligation to revise or update any such forward-looking statements.

Item 1. *Business*

General

F5 Networks is a leader in multi-cloud application services. Our software and hardware solutions enable every application, anywhere to go faster, smarter, and safer. We serve mid-to-large enterprise, public sector, and service provider customers around the globe.

Our core technology includes a full-proxy, programmable, massively-scalable software platform called TMOS (Traffic Management Operating System). The core features and functions of TMOS enable our products to inspect and modify the content of IP traffic flows at network speeds to deliver a range of application services. Our programmable interface, called iRules, allows customers and third parties to write customized rules to inspect, manage and modify traffic.

Introduced in 2004, the TMOS platform supports the industry’s broadest array of application services, including local and global traffic management, network and application security, access management, encrypted traffic inspection, web fraud prevention, firewalling, web acceleration, and numerous other network and application services. These services are available as software modules that can run individually or as part of an integrated solution on our high-performance, scalable, purpose-built BIG-IP appliances and chassis-based VIPRION systems; or as software-only Virtual Editions that run in public and private

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clouds. Our Silverline managed service offerings allow customers to subscribe to online denial-of-service protection and web application firewall services. Our BIG-IQ centralized management offering gives customers the flexibility to create a secure hybrid infrastructure with consistent policies and centralized management across multiple cloud platforms as well as traditional data centers.

Since the introduction of TMOS, we have continually expanded our addressable market and the definition of application delivery through the acquisition and development of new technology. In 2003, for example, we entered the market for secure remote access through the acquisition of uRoam, Inc. and its FirePass SSL VPN technology that has become an important element of our Access Policy Manager (APM) offering. The following year we entered the web application firewall market with the acquisition of MagniFire Websystems, Inc. and its TrafficShield security appliance, which became the foundation of our Application Security Manager (ASM) and Advanced WAF products. In 2013, we introduced Advanced Firewall Manager (AFM), enabling enhanced network firewall capabilities. In 2013, we also continued to expand our security offerings with the acquisition of Versafe, a provider of web anti-fraud, anti-phishing, and anti-malware solutions that has become the basis for our Web Fraud Protection solutions, and in 2014 we acquired Defense.Net, a cloud-based DDoS protection service that complements our on-premises DDoS solution and is currently available on our Silverline SaaS platform.

The majority of our revenue today is derived from sales of BIG-IP and VIPRION products, as well as associated professional services. Our BIG-IP family of products are available as packaged software, appliances, and on our scalable VIPRION systems.

Our hardware-based products are purpose-built devices integrating industry-standard components, such as Intel-based general-purpose processors, high performance cryptographic offload components, and FPGAs (Field-Programmable Gate Arrays). The architecture of these systems is designed to accelerate and optimize the performance of our software by offloading repetitive, compute-intensive functions such as encryption and compression to specific components, and enabling complex application-layer processing at network speed. Deployed throughout the IT infrastructure, our hardware products deliver massive performance and scalability that enable customers to consolidate multiple application services. This consolidation reduces their total cost of ownership and helps drive down operating costs by simplifying the management of servers and applications.

Our software-only offerings provide the same application services available on our purpose-built hardware but are available for use in traditional, private cloud, and public cloud environments. Our Virtual Edition (VE) offerings run on all standard hypervisors, are portable across major cloud environments, deliver faster throughput than competing products, and offer the broadest array of integrated application services available. VEs give customers the flexibility to deploy a mix of integrated application services as needed, spin them up and down with each instance of an application, and move them easily between traditional data centers and multiple private or public cloud platforms - while also incorporating technologies such as microservices and container environments.

Whether they are deployed as VEs or on purpose-built hardware, our application services can be centrally managed from our BIG-IQ management platform.

We also offer cloud-based, fully managed security services through F5's Silverline offerings. The Silverline brand provides customers proven security technologies coupled with world-class security professionals who manage these offerings from F5's security operations center (SOC). Current primary services include distributed denial-of-service (DDoS) protection and web application firewall (WAF) services.

In connection with our products, we offer a broad range of professional services including consulting, training, installation, maintenance, and other technical support services.

F5 Networks was incorporated on February 26, 1996 in the State of Washington. Our headquarters is in Seattle, Washington, and our mailing address is 401 Elliott Avenue West, Seattle, Washington 98119. The telephone number at our executive offices is (206) 272-5555. We have subsidiaries, branch offices or representative offices in Argentina, Australia, Austria, Belgium, Brazil, the British Virgin Islands, Canada, Chile, China, Colombia, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Hong Kong, India, Indonesia, Ireland, Israel, Italy, Japan, Kingdom of Saudi Arabia, Malaysia, Mexico, Netherlands, New Zealand, Norway, the Philippines, Poland, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, the United Arab Emirates, the United Kingdom and Vietnam. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports are available free of charge on our website, www.f5.com, as soon as reasonably practicable after they are electronically filed with the Securities and Exchange Commission. Copies of these filings may also be obtained by visiting the Public Reference Room of the SEC at 100 F Street, NE, Washington, D.C. 20549, or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website (www.sec.gov) that contains current, quarterly and annual reports, proxy and information statements and other information regarding issuers that file electronically.

Industry Context

Growth and Evolution of Applications

Today, as more and more businesses go digital, increasingly the value of the modern enterprise resides in its applications and its data. In all, applications make up the digital DNA of an enterprise, enabling new customer experiences, increased revenue opportunities, and scaled operations. In fact, research shows that there are over 250 million enterprise application workloads alive in the world today, growing to approximately 1.7 billion over the next few years. Applications have become a primary vehicle through which businesses develop and deliver their goods and services, whether physical or digital in nature.

Emergence of the Dynamic Data Center and Multi-Cloud Infrastructures

From a broad perspective, the goal of IT organizations is to optimize the secure delivery of applications to users wherever they are and whenever they need them, regardless of where those applications exist. F5 helps organizations accomplish this goal with software-based application services that support varied and evolving deployment models.

Dynamic Data Center. Server virtualization has enabled organizations to group or partition data center compute resources to meet user demand dynamically and reconfigure these virtual resources easily and quickly as demand changes. More recently, software-defined networking (SDN) offers organizations a means to reduce costs, increase flexibility, and simplify deployment and management of IT infrastructure through network virtualization. F5 products play key roles in application delivery and security in both environments.

Multi-Cloud Environments. Many organizations are taking advantage of the growing availability of private and public cloud resources as a flexible, secure, and reliable alternative to owning and managing static infrastructure components directly. F5 State of Application Delivery (SOAD) and other studies show that customers are increasingly moving towards multi-cloud architectures where applications on-premises must coexist and collaborate with applications in the cloud and across multiple clouds. F5 solutions can simplify the deployment, delivery, security, and management of applications in such environments.

These changes in the data center and multi-cloud environments have created new challenges for the security of networks, data, and applications. With increasing frequency, sophisticated attackers have sought to compromise applications, particularly in highly distributed environments. Moreover, advanced denial-of-service attacks have exposed major vulnerabilities in the security perimeter of corporate networks by overwhelming devices and effectively shutting down the networks. In addition, many network-level security threats are directly related to the improper use of the same protocols that applications depend on to transmit data. Intrusion detection and prevention devices, which rely on signature databases of known threats, afford some protection against these types of attacks. However, they offer limited protection against many of the most common threats, including information leakage, content spoofing, cross-site request forgery, or “zero-day” attacks designed to exploit a variety of application vulnerabilities.

In addition to preventing the threat of attacks designed to disrupt, destroy, or block access to network applications, organizations are faced with the equally daunting challenge of controlling access to applications and data. The proliferation of mobile devices has given users with smart phones, tablets, and laptops the ability to access corporate materials from virtually anywhere via private and public cloud resources, as well as traditional data centers. This, in turn, has increased the difficulty of ensuring that mobile users are only able to access applications and data for which they are authorized, and that applications and data are protected from access by unauthorized users.

Application Services

"Application Services" are network and security services - sometimes referred to as Layer 4-7 services or even application delivery services. There is a large and growing variety of these services available today, covering availability, performance, security, identity, and access management, to name a few.

In our view, application services emerged from the disaggregation of capabilities that formerly were integrated into devices such as Application Delivery Controllers (ADCs) but are now software-defined, loosely coupled, and easily consumed. In essence, making it easier to attach an individual service to an application based on a specific need at a specific point in time.

The benefit of robust application services is that they enable IT to enforce consistent service quality across the entire application portfolio. This “consistent service quality” means that there is an additional layer of security, availability, and reliability that is enforced independently of whether the applications have such capabilities built-in or not. It is critical in a time where much of the user experience is digital in nature, delivered via the cloud, and increasingly built by teams of developers outside of the IT organization.

When made a core part of an enterprise-wide infrastructure, an application services provider like F5 can provide a level of assurance to the business that its application portfolio remains available, reliable, and secure.

The Need to Optimize the Secure Delivery of Applications and Data

With the ongoing evolution and increasing complexity of IT infrastructures, there is a growing need to optimize the secure delivery of applications and data over IP networks. IP-based traffic passing between end-user devices, servers, and cloud resources is divided into discrete packets that travel by multiple routes to their destination where they are reassembled. The basic disassembly, routing, and reassembly of transmissions are relatively straightforward and require limited intelligence. By contrast, managing, inspecting, modifying, redirecting, and securing application traffic going to and from servers can require highly intelligent systems capable of performing an expanding array of functions. Broadly speaking, all of those functions are aspects of application delivery.

Application delivery services dynamically manage, secure, and optimize the flow of traffic between users and servers (physical or virtual), and cloud environments, freeing up other resources by offloading common network functions, such as encryption, IPv4/IPv6 translation, compression, authentication, rate-shaping, and a variety of specialized functions, including network and application security services, policy management, and WAN optimization, that would otherwise have to be coded into applications. Since most large enterprises have hundreds — if not thousands — of applications, it isn't practical to replicate these functions within each instance of an application and maintain consistent policies across a broad spectrum of different applications. In traditional data centers, it has been common practice to deploy an array of point products in front of server farms to provide various services, but that typically requires integrating, maintaining, and upgrading disparate technologies from different vendors, a process that is time-consuming and expensive in terms of both capital and operating costs. From a security standpoint, it is also much more difficult to audit traffic passing through multiple devices. In such environments, a more practical and efficient solution is a comprehensive set of integrated application delivery services on a single, high-performance device. In virtual and cloud environments where flexibility is a priority, software designed to run on standard hypervisors provides the same services and many of the benefits associated with hardware-based solutions.

Although application delivery services are broadly applicable within enterprise and service provider IT infrastructures, service providers face unique challenges as they attempt to modernize and scale their networks to deal with the flood of data generated by smart phones, tablets, wearables, and other mobile devices. To cope with these challenges, many service providers have been migrating legacy 2G/3G infrastructures to 4G/5G/LTE networks and Evolved Packet Core (EPC) data centers that require an array of network and application services. Today, most of those services are deployed on separate appliances from different vendors, and service providers are actively seeking solutions that will enable them to lower costs and improve reliability and performance by consolidating services and reducing the number of devices. Increasingly, they are also demanding software solutions designed to run on commodity hardware that can be repurposed as needed. To cope with the dramatic increase in signaling traffic associated with 4G/5G/LTE networks, the challenges of migrating legacy infrastructure, and the need to integrate charging and enforcement functions with subscriber data, service providers have also adopted the Diameter signaling protocol as the de facto standard for communication within their evolving data centers.

F5's Strategy: Multi-Cloud Application Services

At F5, our mission is based on the fact that businesses depend on apps. Whether it's apps that help connect businesses to their customers or apps that help employees do their jobs, we make sure apps are always available and secure, anywhere. The world's largest enterprises, service providers, financial and educational institutions, government entities, and consumer brands rely on F5 to stay ahead of security, cloud, and mobility trends.

Protect your applications

Apps are the gateway to your data, and most breaches happen at the app level. Protecting your data and your business requires thinking about app security first with integrated solutions to defend critical areas of risk.

In any environment

Wherever you deploy your apps - on-premises or in private, public, or multi-cloud environments - our enterprise grade app services will follow. These performance and security services include load balancing, DNS services, web application firewall (WAF), identity and access federation, and DDoS mitigation, among others.

With flexible models

To keep pace with innovation, many customers need greater budget flexibility. F5 can provide enterprise-grade app services via hardware or software, with flexible licensing and subscription models such as perpetual licenses, annual licenses, or pay-as-you-go options. We also provide application security capabilities as-a-service if you need on-demand application protection.

Our goal is to lead the industry in providing application services that ensure the safe, fast, and reliable delivery of applications to any user, anywhere, anytime - regardless of a user's location or where the application resides. These services

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include availability, security, and performance. They also include managing and orchestrating resources, as well as coordinating services across multiple data centers, networks, and cloud-based resources. Our products are designed to provide strategic points of control throughout the IT infrastructure that allow business policies to be implemented where information is exchanged. Key components of our strategy include:

Expanding our addressable market with comprehensive application services.

Since the introduction of TMOS, we have developed a suite of BIG-IP software modules, such as Local Traffic Manager (LTM), BIG-IP DNS, Advanced Firewall Manager (AFM), Carrier Grade Network Address Translation (CGNAT), Policy Enforcement Manager (PEM), Application Security Manager (ASM), Access Policy Manager (APM), and our web-fraud protection capabilities, WebSafe and MobileSafe. All of these products are currently available as integrated software modules on our BIG-IP and VIPRION hardware and as Virtual Editions that run on standard hypervisors.

In 2018, we introduced a portfolio of stand-alone offerings directly meant for security users, including Advanced Web Application Firewall (Advanced WAF), DDoS Hybrid Defender, SSL Orchestrator, and Access Manager. In addition, we offer DDoS protection and web application protection as subscription-based managed services on our cloud-based Silverline SaaS platform. Regardless whether these services are deployed as software-only solutions or as modules running on our purpose-built hardware, our BIG-IP management platform allows customers to apply and update consistent policies across their F5 services from a centralized resource.

F5's multi-faceted approach addresses the needs of today's evolving hybrid infrastructures and sharply differentiates our products from our competitors' offerings. Moreover, in step with our product development efforts and acquisition strategies concerning related or adjacent technologies, we believe our current addressable market is significantly broader and more diverse than the ADC market as industry analysts have defined it.

Investing in technology to meet evolving customer needs.

We meet with our customers often and maintain multiple customer advisory relationships to ensure that our development efforts are aligned with their needs. We continue to invest in research and development efforts that leverage the unique attributes of our TMOS platform as well as new technologies to deliver new features and functions that address the complex, changing needs of our customers. Although the bulk of our investment is software development, concurrent development of tightly integrated hardware that delivers consistent, guaranteed high-performance continues to be an appreciable element of our investment strategy. We also look for opportunities to acquire technologies that will enable us to broaden the scope of our offerings and expand into adjacent markets.

Continuing to build and expand relationships with strategic technology partners.

F5 works with many of the world's leading technology companies to improve manageability, strengthen security, and ensure faster and more successful deployments. Joint customers benefit from the integration and interoperability that result from this close collaboration.

In recent years, we have developed partnerships with Cisco, HP, Microsoft, and VMware to provide integrated application services for their offerings. In addition, we have advanced partnership efforts around Amazon AWS, Microsoft Azure, Google Cloud Platform, VMware vCloud, Cisco ACI, and many other technologies to provide cloud-based application services and solutions for customers. We plan to continue building on our existing relationships and to extend our competitive edge by developing new strategic partnerships with other technology leaders and emerging players.

Leveraging DevCentral, our online community of network architects and developers.

Customization of our products' capabilities via iRules, iRules LX, and related technologies enhances their "stickiness" by allowing customers to solve problems in both their applications and their networks that would be difficult if not impossible to solve by other means. Our online community, DevCentral, lets customers and partners discuss and share the ways in which they use F5's programmable technologies to solve problems and enhance the security, performance, and availability of applications. A corollary benefit is that a number of the solutions posted by DevCentral participants have become standard features in newer releases of TMOS. DevCentral also provides a valuable window into our customers' constantly evolving needs that helps guide product development efforts.

F5 Solutions

F5 offers the industry's most comprehensive set of application services for enterprises, governments, and service providers around the globe. These solutions may be deployed on-premises, in a private cloud (which could be hosted by a hosting provider), in a public cloud, or in a hybrid or multi-cloud environment.

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Our integrated application services are available via software modules on our purpose-built hardware, as software-only Virtual Editions (VEs) that run on standard hypervisors, and as cloud-based solutions. These products function as strategic points of control in IP networks, inspecting, modifying, and directing traffic to optimize the security, availability, and delivery of applications and data to any user, anywhere, anytime, and on any device. Our service provider solutions address the complex needs of service providers and complement our TMOS-based products by enabling fast, reliable communications among the elements of their legacy infrastructures and their evolving packet-based 4G/LTE networks and network functions virtualization (NFV) environments. We believe our products offer the most intelligent services and advanced functionality in the marketplace along with performance and flexibility that enable organizations to simplify management of their IP networks and data center operations by integrating disparate resources to reduce operating costs, enhance productivity, and improve service to employees, customers, and partners.

Since 2004 we have expanded the breadth of features and functionality we offer well beyond the scope of Application Delivery Networking as it has been traditionally defined. Today, we also offer solutions that include application security, secure remote access, enhanced firewall capabilities, optimization, access policy management, carrier-grade network address translation, Diameter signaling, policy enforcement, fraud detection and more, opening up large opportunities in several adjacent markets.

Operating System and Service Module Software

The core of our primary application delivery technology is TMOS, our Traffic Management Operating System, introduced in September 2004. The full-proxy characteristics of the TMOS architecture enable our products to intercept, inspect, and act on the contents of traffic from virtually every type of IP-enabled application. In addition, the modularity of the TMOS architecture allows us to deliver tightly integrated solutions that secure, optimize, and ensure the availability of applications and the networks they run on.

Traffic Management Operating System (TMOS)

Since TMOS was launched, we have added thousands of new features designed to interpret and act on specific content in the traffic passing between users and applications. TMOS includes several features and functions that are unique to our products, with examples such as those listed below:

- Programmability and customization of F5 products for applications (iApps), for control and management (iControl), for the data plane (iRules and iRules LX), and for threshold breaches and alerts (iCall). See more details below in the *DevOps, Programmability, and APIs* sub-section.
- Scale^N is a set of three unique capabilities that enhance the flexibility of our products:
 - Clustered Multiprocessing (CMP) allows customers to cluster and aggregate processors (cores) within BIG-IP appliances or VIPRION chassis products.
 - Virtual Clustered Multiprocessing (vCMP) enables the creation of separate virtual instances of TMOS within an appliance or chassis, each with a different configuration and assigned to a different application.
 - Device Service Clustering (DSC) gives customers the ability to group devices and services across an array of physical and virtual devices (BIG-IP appliances, VIPRION chassis, or Virtual Editions). Devices can be added to or removed from a DSC without disrupting application services, and application services can be independently managed within the cluster.

TMOS includes features that enhance the ability of our products to protect and hide networks and applications from denial-of-service attacks and other types of security threats. Other enhancements include gateway support for software-defined networks (SDN), symmetrical and asymmetrical application acceleration, subscriber and application aware enforcement for service providers, management and orchestration of multiple devices, and improved visibility that allows customers to monitor and record the performance of applications and users. The most recent versions of TMOS deliver leading application services with enhanced public cloud integration and more sophisticated security policies for on-premises and hybrid cloud environments. Enhancements in iRules LX enable programmability across traditional, cloud, and hybrid architectures and leverage an extensive Node.js library that allows DevOps teams to create customized services quickly and easily.

Software Modules

The features and functions embedded in F5 products provide integrated software services that cover a broad range of application-aware network functions from load balancing to security. These services are available as software modules designed to run on our purpose-built hardware, as software-only Virtual Editions with any standard hypervisor, and in a variety of cloud-based environments. Example offerings in the BIG-IP product line include:

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- Local Traffic Manager (LTM) provides intelligent load balancing, traffic management, and application health checking.
- BIG-IP DNS improves the performance and availability of global applications by intelligently directing users to the closest or best-performing physical, virtual, or cloud environment. In addition, it enhances DNS security by automatically scaling to absorb a rapid increase in queries resulting from a denial-of-service attack and mitigates complex threats from malware and viruses by blocking access to malicious IP domains.
- Advanced Firewall Manager (AFM) enables high-performance network firewall capabilities designed to ensure that traffic is not interrupted even under the most intense attacks. AFM scales to support millions of concurrent connections per second and uses the flexibility of iRules, sophisticated filtering, immediate blacklisting, and over a hundred built-in threat vectors to identify and mitigate DDoS attacks. We also offer a carrier-class version of AFM designed to meet the rigorous requirements of an S/Gi firewall in service provider networks.
- Application Security Manager (ASM) and Advanced WAF are web application firewall products that provide comprehensive, proactive, application-layer protection against both generalized and targeted attacks. Combining a positive security model (“deny all unless allowed”) with signature-based detection, ASM can prevent “zero-day” attacks in addition to known security threats. Advanced WAF additionally provides malicious bot protection, application-layer encryption, API inspection, and behavior analytics to help defend against more sophisticated application attacks.
- Access Policy Manager (APM) and Access Manager provide secure, granular, context-aware access to networks and applications while simplifying authentication, authorization, and accounting (AAA) management. They include an endpoint security service that validates client devices, including personal devices used by employees to access corporate applications and data, to protect organizations from viruses or malware infections, accidental data loss, and rogue device access. This allows users to apply repeatable access policies across many devices, networks, applications, and servers with centralized visibility of their authorization infrastructure. Access Manager additionally provides API authorization and man-in-the-middle attack prevention with real-time login credential encryption.
- SSL Orchestrator provides high-performance decryption of inbound and outbound SSL/TLS traffic, enabling security inspection to expose threats and stop attacks. Dynamic service chaining and policy-based traffic steering allow organizations to intelligently manage encrypted traffic flows across the entire security chain with optimal availability. SSL Orchestrator ensures encrypted traffic can be decrypted, inspected by security controls, then re-encrypted, delivering enhanced visibility to mitigate threats traversing the network. As a result, organizations maximize their security services investment for malware, data loss prevention (DLP), ransomware, and next-generation firewalls (NGFW), thereby preventing inbound and outbound threats, including exploitation, callback, and data exfiltration.

Software modules can be licensed individually or as part of an integrated system. In addition, our “Better” and “Best” offerings bundle certain modules and are sold at a discount to the price customers would pay if each of the included items were purchased separately.

Cloud-Based Subscription Services

- Silverline is a SaaS platform that allows customers to subscribe to security services running on our own high-performance, massively-scalable hardware in cloud-based points of presence around the globe. Two services are currently available on Silverline: Denial of Service (DoS) protection and Web Application Firewall (WAF). Depending on the level of protection they require, customers can route traffic through Silverline 24/7 or only when an attack is detected. For customers who want to minimize the upfront costs and expense of maintaining on-premises solutions, these services are simple to deploy and an affordable alternative. For large enterprises, subscribing to these services in conjunction with F5's on-premises DDoS Hybrid Defender and Advanced WAF can provide a first line of defense against attacks before they have a significant down-time impact on their application or network services.

Service Provider Solutions

In addition to the solutions described above, F5 also offers a number of technologies specifically aimed at the service provider market, including:

- The GiLAN Solution
 - GiLAN solution is made up of BIG-IP LTM and DNS, Carrier-Grade Network Address Translation (CGNAT) and Policy Enforcement Manager (PEM). The modules have been described above in this document.
 - Carrier-Grade Network Address Translation (CGNAT) offers a broad set of tools that enables service providers to successfully migrate to IPv6 while continuing to support and interoperate with existing IPv4 devices and content. BIG-IP CGNAT offers service providers tunneling solutions with Dual-Stack Lite capabilities as well as native network address translation solutions such as NAT44 and NAT64. It provides carrier-grade scalability by offering a

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very high number of IP address translations, very fast NAT translation setup rates, high throughput, and high-speed logging.

- Policy Enforcement Manager (PEM) offers service providers a comprehensive set of traffic classification capabilities to accurately identify the specific applications and services subscribers are using and how they're using them. This information allows them to steer application and subscriber traffic to the most appropriate value-added services (such as web caching, video optimization, or parental control) and reduce the burden on other services. PEM also provides deep reporting, enabling service providers to build tailored services and packages based on subscribers' application usage and traffic classification.
- Network Functions Virtualization (NFV)

All software modules BIG-IP LTM, AFM, PEM, CGNAT, DNS, and others are available as Virtual Editions which make up Virtual Network Functions (VNFs). F5 offers NFV solutions as pre-packaged and orchestrated network functions (e.g., GiLAN, GiFW) as well as individual module licenses and "VNF Better" and "VNF Best" offering bundles that customers can use to build their own VNFs. Pre-packaged, ETSI NFV model-aligned NFV solutions provide significant simplification for customers that are moving and scaling NFV architecture. Network functions can be pre-configured, deployed, and lifecycle-managed by VNF Manager and scaled automatically to reach desired (purchased) capacity. Also, automation capabilities built into pre-packaged NFV solutions will enable faster transition to 5G services.

Our pre-packaged NFV solutions can be plugged into overall orchestrators via VNF Manager. VNFs built from individual VE instances can be orchestrated with the service provider's orchestration engines through open APIs and integrated with external SDN controllers.

We also offer a variety of licensing options, including subscriptions, perpetual licenses, and Enterprise Licensing Agreements (ELAs).
- Carrier Class Firewall (CCFW)

F5's carrier-class network firewall provides end-to-end security. From customer billing and provisioning systems to protecting LTE network infrastructure and strengthening mobile device security including protection against DDoS attacks. Our multilayered, redundant security platform supports new 4G-LTE, 5G, and VoLTE technologies and easily integrates with today's NFV environments. Defending assets at scale, without impairing performance is the security approach that earns us the trust of all ten of the top Tier-1 operators.
- Signaling Traffic Management

Service Provider networks use several key protocols like the Diameter signaling protocol which is a de facto standard adopted by service providers to deal with the massive increase in signaling traffic that accompanies the mobile industry's transition to 4G/5G/LTE networks. F5's BIG-IP platform supports traffic management and security of traffic associated with protocols like Diameter, SIP, GTP, and also IoT protocols like MQTT that are widely used in service provider networks. Diameter, SIP, and other Load Balancers deliver cost-effective connectivity, scalability, and control to service providers migrating from legacy infrastructures to LTE and IMS networks.
- 5G

With a growing adoption of the 5G wireless standard, the majority of service providers are experiencing a significant increase in capacity requirements and automation needs to deal with distributed and virtualized environments. While all F5 Service Provider solutions mentioned support current 5G deployments, pre-packaged NFV solutions are built to provide automation and enable carriers' easy transition to 5G. In addition, as the 5G standard evolves, we will continue expanding our set of 5G-specific solutions like IoT Firewall, GTP Firewall, Network Slicing solutions, etc.

Hardware Platforms

All of our purpose-built hardware products are designed to enhance the performance of our software by leveraging a combination of custom FPGA logic and off-the-shelf silicon, providing a balance of cost and flexibility. Currently, we offer two types of hardware configurations: BIG-IP appliances; and our chassis-based VIPRION products. Both BIG-IP and VIPRION run TMOS and support our product software modules. We also sell specialty appliances that integrate specific software services and are only available as standalone products.

Datasheets for all of our hardware platforms are available in the products section of our website.

BIG-IP Appliances

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Platforms in our family of BIG-IP appliances differ primarily in their performance and size characteristics resulting from the hardware components and configurations that make up these systems. Currently, BIG-IP appliances are available in two product lines: a standard series and the newer, cloud-ready iSeries (introduced in the second half of calendar year 2016). Enhancements in performance, scalability, and hardware programmability enable F5 products to run various software services, including F5's hypervisor technology called virtual clustered multiprocessing (vCMP), which allows complete segmentation of BIG-IP systems into independent virtual BIG-IPs.

VIPRION Chassis-Based Systems

Currently, we offer four chassis-based systems: VIPRION 4800, VIPRION 4480, VIPRION 2400, and VIPRION 2200. VIPRION's unique CMP architecture distributes traffic evenly across all available processors and allows customers to add or remove blades without disrupting traffic. It also helps customers simplify their networks by consolidating application delivery services with vCMP, saving management costs as well as power, space, and cooling in the data center. During the third quarter of fiscal year 2016, we introduced the VIPRION 4450 blade for VIPRION 4800 (8-blade chassis) and VIPRION 4480 (4-blade chassis). Each blade delivers greater than 100Gb of throughput, and a fully loaded VIPRION 4800 can support more than one billion concurrent connections.

Software Platforms

BIG-IP Virtual Edition (VE)

Virtual Edition (VE) is F5's software ADC and Security services platform. VE was introduced in 2011 to enable customers to leverage F5's services in virtualized and cloud-based environments. Currently, VE is deployable on most hypervisors including VMware ESXi, KVM, Xen, and Microsoft Hyper-V, as well as in various cloud environments such as Amazon AWS, Microsoft Azure, Google Cloud Platform, and OpenStack. VE is optimized for performance and interoperability, including a high-performance version supporting up to 40G throughput and integration into automation/orchestration frameworks (Ansible, Puppet, Terraform, OpenShift, and Cloud Foundry). F5 also provides tools and supported cloud templates based on a robust set of APIs in our GitHub repository to simplify and automate provisioning and configuration of our services. The same breadth of BIG-IP software modules can be deployed on VE, providing customers the ability to deliver consistent services and security policies for their applications and gain operational agility when deploying in multiple cloud environments. VE is offered in a variety of licensing options including as a subscription license, as part of an enterprise licensee agreement, as a perpetual license, and in a utility model through several F5 cloud partners. VE is the core platform for addressing the adoption of NFV, Cloud, and DevOps by Enterprise IT and Service Provider networks.

Management and Orchestration Software

BIG-IQ Centralized Management

F5 BIG-IQ Centralized Management provides unified management, automation, and orchestration for F5 virtual and physical devices and the services that run on them. Available in enterprise-grade virtual or physical form factors, BIG-IQ Centralized Management simplifies and enhances infrastructure and application services management and reduces customer operational costs. It also helps ensure compliance with intelligent tools to deliver applications securely and efficiently across on-premises data centers and public and private clouds. From an intuitive, application-centric management console, customers can:

- Manage and troubleshoot applications quickly and easily via per-application dashboards
- Enable self-service provisioning for application teams via an easy-to-use service catalog
- Auto-scale right-sized F5 traffic management and security services for their applications
- Manage up to 600 virtual and physical BIG-IP devices, including inventory, status, reporting, backups, updates and upgrades, and licensing for up to 5,000 virtual devices
- Centrally manage configurations and policies for F5 security solutions
- Secure applications and benefit from security insights, reports, and alerts for recognized security events

F5 Automation Toolchain

The F5 Automation Toolchain provides a set of composable elements that deliver declarative, intent-based APIs for the F5 platform. These APIs are backed by strong API Contracts that enable forward and backwards compatibility, rapid iteration and release. Toolchain components are designed to provide:

- A powerful abstraction layer for complex Application Services

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- Integration with F5 and third-party Automation, Orchestration, and Management solutions and frameworks
- Capabilities that enable the Infrastructure-as-Code and Configuration-as-Code methodologies preferred by DevOps enabled customers

Components are available as installable packages that run on the TMOS platform or as containerized instances that can run independently in common Container and Virtualization platforms such as Kubernetes and VMware. The components enable agile, DevOps-centric Application Service Lifecycle management, allowing customers to automate and orchestrate:

- Lifecycle of F5 devices and virtual instances (Declarative Onboarding Extension)
- Lifecycle of complex Layer 4-7 Application Services (Application Services 3 Extension)
- Offload of telemetry data for devices, instances and deployed Application Services (Telemetry Streaming Extension)
- Integration with third-party systems and solutions through declarative APIs backed by strong API Contracts

DevOps, Programmability, and APIs

F5's DevOps, Programmability, and API portfolio enables automation, orchestration, and partner integration capabilities across F5's product lines.

iControl REST is our platform API, built on REST (Representational State Transfer), which is a simple, stateless architecture delivered over HTTP(S). It uses JSON (JavaScript Object Notation), which is rapidly becoming the most commonly used format for transferring data pairs. Combined with the fact that iControl REST is effectively an extension of tmsh (our command line interface), it provides a low overhead solution, both in terms of operational expense, as well as time to learn. iControl LX allows for out-of-band customizations to the control plane just as iRules and iRules LX do for the data plane. It provides the foundation for F5's programmable extensibility layer, enabling users to extend and create fundamentally new platform capabilities. It enables users to run Node.js "extensions" on BIG-IP which enable custom behaviors at new iControl REST API endpoints. These extensions can be initiated and controlled by calling their new REST API endpoints.

iApps is a set of portable, customizable, reusable templates that enable the rapid and predictable deployment of our products in front of dozens of applications from vendors including Cisco, Citrix, Microsoft, Oracle, and VMware. iApps also allows customers and partners to create templates that simplify the deployment and provisioning of their own applications. iApps LX extends iControl LX by enabling a rich presentation layer (GUI) and JSON-based application templates.

iCall is a control plane scripting framework that provides the ability to define data plane events such as threshold breaches and adjust the behavior of our products accordingly. iCall enables administrators to react to specified data plane events by executing services on the management plane. It can also be used periodically to manage backups or repopulate DNS, or to provide regularly scheduled services such as configuration audits.

iRules is a powerful, built-in data plane scripting language that enables users to customize how our products intercept, inspect, transform, and direct inbound or outbound application traffic. iRules LX enables programmability across traditional, cloud, and hybrid architectures and leverages an extensive Node.js library that allows DevOps teams to create customized services quickly and easily.

Third-party orchestration systems such as Ansible, Terraform, Chef, and Puppet are critical for the DevOps community/application owners. F5 is primarily investing in Ansible and Python SDK module delivery to enable simplified and declarative BIG-IP onboarding and configuration.

Additional programmability characteristics include the following:

- iRules LX Streaming support
 - High-performance Node.js-native data plane programmability
- iApps LX framework to enable rich presentation layer for:
 - SSL Orchestrator
 - DDoS Hybrid Defender
 - APM Access Guided Configuration
 - F5 Automation Toolchain Components
- F5 API Contracts
 - Ensures API forward and backwards compatibility, prevents breaking changes
 - Transparency of endpoint lifecycle state (EA, GA, Internal, Test, Deprecated) to ensure customers use appropriate APIs and plan for upgrades

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- iControl LX
 - Enables customers to extend fundamental platform capabilities via custom REST API endpoints
 - Provides the base platform for F5 Automation Toolchain Components

Product Development

We believe our future success depends on our ability to maintain technology leadership by continuing to improve our products and by developing new products to meet the changing needs of our customers and partners. Our product development organization which, along with product management, encompasses our products and technology group (PTG), employs standard processes for the development, documentation, and quality control of software and systems that are designed to meet these goals. These processes include working with our business development and marketing teams, customers, and partners to identify technology innovation opportunities to better meet the evolving needs of our addressable markets.

Over 90 percent of our product development organization is engaged in software development in 8 major locations. The LTM, DNS, core cloud management, and orchestration products and platforms are primarily developed in Seattle, Washington. Development of Security products is centered in Tel Aviv, Israel and San Jose, California with our Web Application Firewall and WebSafe/MobileSafe centered in Tel Aviv, and our core firewall (AFM) and Identity and Access products and technologies developed in San Jose. Policy Enforcement Manager is also developed in San Jose.

Our hardware engineering team is located in Spokane, Washington, San Jose, and Tel Aviv.

Smaller development sites including Boulder, Warsaw, and Lowell also support the core development teams in the larger centers. Additionally, we have recently opened a dedicated facility to continue to scale and extend the development of the entire product line, including Core Platform, Cloud, and Security technologies in Hyderabad, India.

Members of all our product development teams collaborate closely with one another to ensure the interoperability and performance of our hardware and software systems.

During the fiscal years ended September 30, 2018, 2017 and 2016, we had research and product development expenses of \$366.1 million, \$350.4 million, and \$334.2 million, respectively.

Customers

Our customers include a wide variety of enterprises and service providers among Fortune 1000 and Business Week Global 1000 companies, including those in technology, telecommunications, financial services, transportation, education, manufacturing, and healthcare, along with government customers. In fiscal year 2018, sales outside of the Americas represented 44.3% of our net revenues. Refer to Note 10 of our consolidated financial statements included in this Annual Report on Form 10-K for additional information regarding our revenues by geographic area.

Sales and Marketing

Sales

We sell our products and services to large enterprise customers and service providers through a variety of channels, including distributors, value-added resellers (VARs), managed service providers (MSPs) and systems integrators. A substantial amount of our revenue for fiscal year 2018 was derived from these channel sales. Our sales teams work closely with our channel partners and also sell our products and services directly to major accounts.

F5 sales teams. Our inside sales team generates and qualifies leads for regional sales managers and helps manage accounts by serving as a liaison between the field and internal corporate resources. Our field sales personnel are located in major cities in four sales regions: the Americas (primarily the United States); Europe, the Middle East, and Africa (EMEA); Japan; and the Asia Pacific region (APAC). Field sales personnel work closely with our channel partners to assist them, as necessary, in the sale of our products and services to their customers. We reward our partners that identify new business and provide sales expertise for our portfolio of products and solutions through various incentive programs. We also sell our products and services directly to customers, primarily large enterprises, whose accounts are managed by our major account team. Systems engineers, with deep technical domain expertise, support our regional sales account managers and channel partners by participating in joint sales calls and providing pre-sale technical solution engineering and support resources as needed.

Distributors, VARs, and MSPs. As a key component of our sales strategy, we have established relationships with a number of large national and international distributors, local and specialized distributors, VARs, and MSPs. We derive a

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majority of our product sales from VARs and MSPs rely on our large distributors for fulfillment, training, and partner enablement.

Our agreements with these channel partners are not exclusive and do not prevent them from selling competitive products. These agreements typically have terms of one year with no obligation to renew, and typically do not provide for exclusive sales territories or minimum purchase requirements.

For fiscal year 2018, sales to five of our worldwide distributors, Ingram Micro, Inc., Tech Data, Synnex Corporation, Arrow ECS and Westcon Group, Inc. represented 16.6%, 11.6%, 10.8%, 10.7%, and 10.4% of our total revenues, respectively. Our agreements with these distributors are standard, non-exclusive distribution agreements that renew automatically on an annual basis and generally can be terminated by either party with 90 days written notice prior to the start of any renewal term. The agreements grant Ingram Micro, Inc., Tech Data, Synnex Corporation, Arrow ECS and Westcon Group, Inc. the right to distribute our products to resellers, with no minimum purchase requirements.

Systems integrators. We also market our products through strategic relationships with systems integrators, including Dell Services, HP Enterprise Services, and IBM Global Services, who include our products as core components of application deployments or network-based solutions they deploy for their customers. In most cases, systems integrators do not directly purchase our products for resale to their customers. Instead they typically recommend our products as part of broader solutions, such as enterprise resource planning (ERP) or customer relationship management (CRM) solutions that incorporate our products for high availability and enhanced performance.

Resellers and Technology Partners. Historically, our ability to compete with much larger companies has been strengthened through partnerships with large systems and software vendors. Currently, we partner with Dell and HP, who resell our products, and with other large technology companies, including Microsoft, Oracle, VMware and Cisco, who recommend our products to their customers. Management of these relationships is the responsibility of our business development team, which closely monitors technology companies in adjacent and complementary markets for opportunities to partner with those whose solutions are complementary to ours and could enable us to expand our addressable market.

Marketing

Our marketing strategy is driven by the belief that our continued success depends on our ability to understand and anticipate the dynamic needs of our addressable markets and to develop valuable solutions that meet those needs. In line with this belief, our marketing organization works directly with customers and partners, as well as F5's distinct business units and product development teams to identify and create innovative solutions to further enhance our leadership position.

To support the growing number of developers using our products, we continue to promote and expand DevCentral, F5's online community site that provides technical resources to customers, prospects, and partners wanting to extend and optimize their use of our solutions. A key aspect of DevCentral is an online forum where developers as well as application and network architects discuss and share solutions they have written with iRules and iCall. At the end of fiscal year 2018, DevCentral had more than 350,000 registered members. In fiscal year 2019, we will further expand our developer marketing efforts to include participation in third party 'appdev' and 'devops' communities.

We also engage in a number of marketing programs and initiatives aimed at promoting our brand and creating market awareness of our technology and products. These include actively participating in industry trade shows and joint marketing events with channel and technology partners, and briefing industry analysts and members of the trade press on our latest products, business relationships, and technology partnerships. In addition, we market our products to chief information officers and other information technology professionals through targeted advertising, digital outreach, and social media efforts.

More recently, F5 established a dedicated team of seasoned security researchers called F5 Labs. F5 Labs combines the threat intelligence data we collect with the expertise of our security researchers to provide actionable, global intelligence around current cyber threats and identify future trends. The teams investigate everything from threat actors and the nature and source of attacks to post-attack analysis of significant incidents in order to create a comprehensive view of the threat landscape. From the newest malware variants to zero-day exploits and attack trends, F5 Labs provides the latest insights from our threat intelligence team.

Backlog

At the end of fiscal years 2018 and 2017, we had product backlog of approximately \$30.5 million and \$25.6 million, respectively. Backlog represents orders confirmed with a purchase order for products to be shipped generally within 90 days to customers with approved credit status. Orders are subject to cancellation, rescheduling by customers, or product specification changes by customers. Although we believe that the backlog orders are firm, purchase orders may be canceled by the customer.

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prior to shipment without significant penalty. For this reason, we believe that our product backlog at any given date is not a reliable indicator of future revenues.

Customer Service and Technical Support

We believe that our ability to provide consistent, high-quality customer service and technical support is a key factor in attracting and retaining large enterprise customers. Accordingly, we offer a broad range of support services that include installation, phone support, hardware repair and replacement, software updates, online tools, consulting, and training services.

We provide these services directly to end users and also utilize a multi-tiered support model, leveraging the capabilities of our channel partners when applicable. Our technical support staff is strategically located in regional service centers to support our global customer base.

Prior to the installation of our products, our services personnel work with customers to analyze their network needs and determine the best way to deploy our products and configure product features and functions to meet those needs. Our services personnel also provide onsite installation and training services to help customers make optimal use of product features and functions.

Our customers typically purchase a one-year maintenance contract which entitles them to an array of services provided by our technical support team. Maintenance services provided under the contract include online updates, software error correction releases, hardware repair and replacement, and, in the majority of cases, round-the-clock call center support. Free updates of our software are available to customers with a current maintenance contract. We also offer an online, automated, self-help customer support function called "AskF5" that provides answers to many commonly asked questions, allowing customers to get information and solve problems quickly while significantly reducing the number of calls to our support desk. This enables us to provide comprehensive customer support while keeping our support-related expenses at a manageable, consistent level. We also offer an online service called iHealth, which allows customers to diagnose up-to-the-minute snapshots of their BIG-IP systems. Diagnoses include tailored feedback about configuration issues or code defects, a description of the issue, recommendations for resolution, and a link to further information within the AskF5 knowledge base.

F5 offers training classes for customers on the configuration and use of products, including local and wide area network system administration and management. We also have a complete certification program that qualifies our partners and customers as having the appropriate skills to implement and use the functionality of our products. To provide our customers with onsite and remote help, we have a professional services team able to provide a full range of fee-based consulting services, including comprehensive network management, documentation and performance analysis, and capacity planning to assist in predicting future network requirements.

Manufacturing

We outsource the manufacturing of our pre-configured hardware platforms to a third-party contract manufacturer for building, assembling, and testing according to our specifications.

Our purpose-built systems are manufactured by Flex LTD. Subcontracting activity at Flex encompasses prototype builds, full production, and direct fulfillment. Flex also performs the following activities on our behalf: material procurement, PCB assembly and test, final assembly, system test, quality control, and direct shipment. We provide a rolling forecast that allows our contract manufacturer to stock component parts and other materials, plan capacity, and build finished goods inventory in anticipation of end user demand. Flex procures components in volumes consistent with our forecast, assembles the products, and tests them according to our specifications. Products are then shipped to our distributors, value-added resellers, or end users. Generally, we do not own the components. Title to the products transfers from the contract manufacturer to us and then to our customers upon shipment from a designated fulfillment location. If the components are unused or the products are not sold within specified periods of time, we may incur carrying charges or obsolete material charges for components that our contract manufacturers purchased to build products to meet our forecast or customer orders.

Hardware components for our products consist primarily of commodity parts and certain custom components designed and approved by our hardware engineering group. Most of our components are purchased from sources which we believe are readily available from other suppliers. However, some components used in the assembly of our products are purchased from a single or limited source.

Testing of all sub-assemblies and assembled systems of our products is performed at Flex's facilities in Zhuhai, China and Guadalajara, Mexico. A small number of systems are built up to a non-functional state and shipped to Guadalajara for configuration and final testing. Systems built and fulfilled in Zhuhai are for distribution to APAC and Japan end users. Systems

built in Guadalajara are shipped to the Flex's fulfillment center in Milpitas, California for distribution primarily to EMEA and the Americas.

Competition

The expanding capabilities of our product offerings have enabled us to address a growing array of market opportunities, many of which are outside the bounds of the Application Delivery Networking market as defined and measured by industry analysts such as Gartner, Dell'Oro, and others. In addition to server load balancing, traffic management, and other functions normally associated with application delivery, our suite of integrated product modules has expanded our addressable market into security, and policy management, where we compete with a growing number of companies not included among traditional ADC vendors. The ability to create customized, programmable services using iRules, iControl, iCall, and similar technologies has also enabled us, our customers, and our partners to design solutions to problems for which there is no off-the-shelf solution. As a result, we believe the traditional definitions of our market do not encompass all of the features, functions, and capabilities of our products, or accurately represent the addressable market for those products.

Within the more narrowly defined traditional ADC market, several companies sell server load balancing products and capabilities. These include Citrix Systems, Inc., Radware Ltd., and a number of other competitors that have a smaller market presence or limited feature set, such as: A10 Networks, Amazon Web Services, Microsoft, Aray Networks, Inc., Avi Networks, Barracuda Networks, Inc., NGINX, HA Proxy, and Kemp Technologies.

In related markets, we compete with companies such as the following:

- Cisco, Juniper Networks, and A10 for carrier-grade firewall capabilities;
- Akamai, Imperva, Citrix, and Barracuda Networks in the web application firewall market;
- Cisco, Juniper, and A10 in Carrier Grade NAT;
- Symantec / Blue Coat and A10 in SSL Orchestration;
- Pulse Security for Access Policy Manager;
- Procera, Allot, Sandvine, and other DPI vendors with our PEM offering; and
- Akamai, Arbor, and Radware in DDoS protection.

The principal competitive factors in the markets in which we compete include product features and performance, customer support, brand recognition, the scope of distribution and sales channels, and pricing. Certain of our competitors have employed and may in the future adopt aggressive pricing policies to gain market share. However, because of the superior performance, broad functionality, and unique capabilities of our products, which have resulted in high levels of customer satisfaction and growing brand awareness, we believe that we can and will compete effectively against such pricing policies.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. F5 holds 313 patents in the United States and has 23 international patents (with applications pending for various aspects of our technology). Our future success depends in part on our ability to protect our proprietary rights to the technologies used in our principal products. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or to obtain and use trade secrets or other information that we regard as proprietary. In addition, the laws of some foreign countries do not protect our proprietary rights as fully as do the laws of the United States. Any issued patent may not preserve our proprietary position, and competitors or others may develop technologies similar to or superior to our technology. Our failure to enforce and protect our intellectual property rights could harm our business, operating results, and financial condition.

In addition to our own proprietary software, we incorporate software licensed from several third-party sources into our products. These are generally term licenses which may renew annually and that generally provide for certain rights and licenses to support our customers post termination. While we may not be able to renew certain of these licenses in the future, we believe that alternative technologies for these licenses are available both domestically and internationally.

Employees

As of September 30, 2018, we had 4,409 full-time employees, including 1,268 in product development, 1,682 in sales and marketing, 891 in professional services and technical support and 475 in accounting and finance, administration and operations.

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None of our employees are represented by a labor union. We have experienced no work stoppages and believe that our employee relations are good.

Executive Officers of the Registrant

The following table sets forth certain information with respect to our executive officers as of November 21, 2018:

Name	Age	Position
François Locoh-Donou	47	President, Chief Executive Officer, and Director
Tom Fountain	42	Executive Vice President and Chief Strategy Officer
Ryan Kearny	49	Senior Vice President and Chief Technology Officer
Steve McMillan	47	Executive Vice President of Global Services
Frank Pelzer	48	Executive Vice President and Chief Financial Officer
Scot Rogers	51	Executive Vice President and General Counsel
Kara Sprague	38	Senior Vice President and General Manager, Application Delivery Controller (ADC)
Chad Whalen	47	Executive Vice President, Worldwide Sales
Ana White	45	Executive Vice President and Chief Human Resources Officer

François Locoh-Donou has served as our President, Chief Executive Officer and member of our Board of Directors since April 2017. Prior to joining F5, Mr. Locoh-Donou served as Senior Vice President and Chief Operating Officer of Ciena Corporation. During his more than 15 years at Ciena, Mr. Locoh-Donou served in several leadership positions. From August 2011 to October 2015, he served as Ciena's Senior Vice President, Global Products Group. Previously, he served as Ciena's Vice President and General Manager, Europe, Middle East and Africa from June 2005 to August 2011. Mr. Locoh-Donou holds an M.B.A. from Stanford University, a 'Mastere' in Optical Telecommunications from the National Institute of Telecommunications of Paris (ENST), and a 'Diplome d'Ingenieur' in Physics Engineering from the National Institute of Physics in Marseille (ENSPM), France.

Tom Fountain has served as our Executive Vice President and Chief Strategy Officer since January 2018. Mr. Fountain is responsible for corporate strategy, corporate development, technology partnerships, our service provider business, and new business incubations. From November 2012 to January 2018, Mr. Fountain served as Senior Vice President for Strategy and Corporate Development at McAfee LLC, Vice President of Strategy and Operations at Intel Corporation, and Senior Vice President for Strategy and Corporate Development at McAfee Incorporated. Previously, Mr. Fountain served as Vice President and General Manager of the Content and Media Business Unit at Juniper Networks from December 2011 to November 2012 and Vice President of Corporate Strategy at Juniper Networks from February 2009 to December 2011. Earlier in his career, Mr. Fountain was a venture capitalist at Mayfield Fund from June 2003 to February 2009 and co-founder and engineering leader at Ingrian Networks from December 1999 to June 2004. Mr. Fountain holds an M.B.A., an M.S. in Computer Science, an M.S. in Electrical Engineering, and a B.S. in Computer Systems Engineering, each from Stanford University.

Ryan Kearny has served as our Senior Vice President and Chief Technology Officer since October 2016. Mr. Kearny is responsible for overseeing F5's products and technology roadmap and leading our engineering team. Mr. Kearny joined F5 in 1998 and was named Vice President of Product Development in May 2004 and Senior Vice President of Product Development in January 2012. Prior to joining F5, Mr. Kearny held a variety of software application architect positions with various Northwest companies. Mr. Kearny holds a B.S. in Electrical Engineering from the University of Washington.

Steve McMillan has served as our Executive Vice President of Global Services since October 2017. He is responsible for overseeing F5's worldwide services organization, including global support, consulting, and services teams. Prior to joining F5, Mr. McMillan served as Senior Vice President, Customer Success and Managed Cloud Services at Oracle from September 2015 to October 2017, where he developed, oversaw, and expanded a customer success organization focused on the company's strategic SaaS portfolio. Previously, Mr. McMillan served as Oracle's Senior Vice President, Managed Cloud Services from July 2012 to September 2015. Prior to joining Oracle, McMillan spent 19 years at IBM, where he held a number of leadership roles focused on global managed services, consulting, and IT. Mr. McMillan holds a B.S. in Management and Computer Science from Aston University.

Frank Pelzer has served as our Executive Vice President and Chief Financial Officer since May 2018. He oversees F5's worldwide financial planning, analysis, accounting, reporting, and internal auditing procedures, as well as investor relations.

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Prior to joining F5, Mr. Pelzer served as President and Chief Operating Officer of the Cloud Business Group at SAP, responsible for the execution of strategy and operations of the company's Software as a Service (SaaS) portfolio including Concur, Ariba, Fieldglass, SuccessFactors, and Hybris. Prior to that, he served as Chief Financial Officer of Concur Technologies, before it was acquired by SAP in 2014. Mr. Pelzer has also held senior leadership positions at Deutsche Bank and Credit Suisse Group. Mr. Pelzer serves on the board of directors for Benefitfocus, Limeade, and Modumetal. He holds a B.A. from Dartmouth College and an M.B.A. from the Tuck School of Business at Dartmouth College.

Scot Rogers has served as our Executive Vice President and General Counsel since January 2014. Mr. Rogers has held a variety of positions in F5's legal department since 2005, including most recently as Senior Vice President and Associate General Counsel immediately prior to his promotion to Executive Vice President. From 2002 through 2005, Mr. Rogers was the General Counsel for Xpediate Consulting, a healthcare technology and consulting company located in the San Francisco Bay Area. Prior to becoming a corporate counsel, he spent eight years in private practice as a commercial litigator. Mr. Rogers is a graduate of the University of Texas and holds a J.D. from the Dedman School of Law of Southern Methodist University.

Kara Sprague is Senior Vice President and General Manager of the Application Delivery Controller (ADC) business unit. She is responsible for F5's ADC product portfolio management, product and solutions. Prior to joining F5 in 2017, Ms. Sprague held various leadership positions across the technology practice of McKinsey and Company. Most recently she led the Technology, Media, and Telecom Practice for the Western Region. Prior to McKinsey, Ms. Sprague was on the engineering staff of Oracle, Agilent Technologies, and Hewlett-Packard. She holds two master's degrees from Massachusetts Institute of Technology and serves on the board of Girls Who Code.

Chad Whalen has served as our Executive Vice President of Worldwide Sales since July 2018. He is responsible for F5's global sales strategy and brings over 20 years of experience leading global teams across Europe, Asia, and North and South America in network infrastructure, security, and SaaS. Mr. Whalen joined F5 in 2017 to lead the Cloud Sales team. Prior to joining F5, Mr. Whalen ran strategic alliances at Fortinet, worldwide sales and services at Jasper, Americas sales and field operations at Ciena and global sales and marketing at World Wide Packets (WWP). Mr. Whalen holds a B.A. in Business Administration and Management from Eastern Washington University.

Ana White has served as our Executive Vice President and Chief Human Resources Officer since January 2018. She is responsible for the F5's people practices and professional growth programs, recruiting, diversity and inclusion, organizational development, and employee advocacy initiatives. Ms. White comes to F5 from Microsoft, where she led global Human Resources teams for over 18 years across multiple business units. Most recently, Ms. White acted as General Manager, Human Resources for Microsoft's Business Development, Finance, HR and Legal organizations with responsibility for their teams' HR strategy, talent management, diversity and inclusion, and organizational capability as well as HR Business Insights across Microsoft. Prior to that, Ms. White led HR for the Marketing and Consumer Business organization. Prior to Microsoft, Ms. White was a Compensation and Benefits Consultant at Willis Towers Watson. Ms. White holds a B.S. in Mathematics from Seattle University, and serves on the taskforce for both the Seattle University Center for Science and Innovation and the board of Childhaven.

Item 1A. Risk Factors

In addition to the other information in this report, the following risk factors should be carefully considered in evaluating our company and operations.

Our business could be adversely impacted by conditions affecting the information technology market

A substantial portion of our business depends on the demand for information technology by large enterprise customers and service providers. In addition to the challenges presented by new cloud computing models, we are dependent upon the overall economic health of our current and prospective customers and the continued growth and evolution of the Internet. International, national, regional and local economic conditions, such as recessionary economic cycles, protracted economic slowdown or further deterioration of the economy could adversely impact demand for our products. Demand for our products and services depends substantially upon the general demand for application delivery products and associated services, which fluctuates based on numerous factors, including capital spending levels and growth of our current and prospective customers, as well as general economic conditions. Moreover, the purchase of our products is often discretionary and may involve a significant commitment of capital and other resources. Future economic projections for the information technology sector are uncertain as companies continue to reassess their spending for technology projects and embrace new models for delivery of IT services, such as cloud computing and highly orchestrated software defined networking environments. As a result, spending priorities for our current and future customers may vary and demand for our products and services may be impacted. In addition, customer buying patterns are changing over time and more customers seek to rent software on a subscription basis and to reduce their total cost of ownership. These evolving business models could lead to changes in demand and licensing strategies, which could have a material adverse effect on our business, results of operations and financial condition.

Cloud-based computing trends present competitive and execution risks

Customers are transitioning to a hybrid computing environment utilizing various cloud-based software and services accessed via various smart client devices. Pricing and delivery models are evolving and our competitors are developing and deploying cloud-based services for customers. In addition, new cloud infrastructures are enabling the emergence of new competitors including large cloud providers who offer their own ADC functionality as well as smaller companies targeting the growing numbers of "born in the cloud" applications. We are devoting significant resources to develop and deploy our own competing cloud-based software and services strategies. While we believe our expertise and investments in software and infrastructure for cloud-based services provides us with a strong foundation to compete, it is uncertain whether our strategies will attract the customers or generate the revenue required to be successful. In addition to software development costs, we are incurring costs to build and maintain infrastructure to support cloud-computing services. These costs may reduce the operating margins we have previously achieved. Whether we are successful in this new business model depends on our execution in a number of areas, including:

- continuing to innovate and bring to market compelling cloud-based services that generate increasing traffic and market share;
- maintaining the utility, compatibility and performance of our software on the growing array of cloud computing platforms and the enhanced interoperability requirements associated with orchestration of cloud computing environments; and
- implementing the infrastructure to deliver our own cloud-based services.

These new business models may reduce our revenues or operating margins and could have a material adverse effect on our business, results of operations and financial condition.

Industry consolidation may result in increased competition

Some of our competitors have made acquisitions or entered into partnerships or other strategic relationships to offer a more comprehensive solution than they had previously offered. We have also entered into large, strategic partnerships to enhance our competitive position in the marketplace. As IT companies attempt to strengthen or maintain their market positions in the evolving application delivery, mobility, cloud networking and cloud platform markets, these companies continue to seek to deliver comprehensive IT solutions to end users and combine enterprise-level hardware and software solutions that may compete with our solutions and which could negatively impact our partnerships. These consolidators or potential consolidators may have significantly greater financial, technical and other resources than we do and may be better positioned to acquire and offer complementary products and services. The companies resulting from these possible combinations may create more compelling product and service offerings and be able to offer greater pricing flexibility or sales and marketing support for such offerings than we can. These heightened competitive pressures could result in a loss of customers or a reduction in our revenues or revenue growth rates, all of which could adversely affect our business, results of operations and financial condition.

We may not be able to compete effectively in the emerging application services market

The markets we serve are new, rapidly evolving and highly competitive, and we expect competition to persist and intensify in the future. Our principal competitors in the application services market include Citrix Systems, Inc., Radware Ltd., and a number of other competitors that have a smaller market presence or limited feature set, such as: A10 Networks, Amazon

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Web Services, Microsoft, Array Networks, Inc., Avi Networks, Barracuda Networks, Inc., NGINX, HA Proxy, and Kemp Technologies.

In related markets, we compete with companies such as the following:

- Cisco, Juniper Networks, and A10 for carrier-grade firewall capabilities;
- Akamai, Imperva, Citrix, and Barracuda Networks in the web application firewall market;
- Cisco, Juniper, and A10 in Carrier Grade NAT;
- Symantec / Blue Coat and A10 in SSL Orchestration;
- Pulse Security for Access Policy Manager;
- Procera, Allot, Sandvine, and other DPI vendors with our PEM offering; and
- Akamai, Arbor, and Radware in DDoS protection.

We expect to continue to face additional competition as new participants enter our markets. As we continue to expand globally, we may see new competitors in different geographic regions. In addition, larger companies with significant resources, brand recognition, and sales channels may form alliances with or acquire competing application services solutions from other companies and emerge as significant competitors. Potential competitors may bundle their products or incorporate an Internet traffic management or security component into existing products in a manner that discourages users from purchasing our products. Any of these circumstances may limit our opportunities for growth and negatively impact our financial performance.

Our success depends on our timely development of new products and features, market acceptance of new product offerings and proper management of the timing of the life cycle of our products

The markets for our products and services are characterized by:

- rapid technological change;
- evolving industry standards;
- consolidation of network and application functions into existing network infrastructure products;
- requirements that our products interoperate with those of other IT vendors to enable ease of management;
- fluctuations in customer demand;
- changes in customer requirements; and
- frequent new product and service introductions and enhancements.

Our continued success depends on our ability to identify and develop new products and new features for our existing products to meet the demands of these changes, and the acceptance of those products and features by our existing and target customers. In addition, our products must interoperate with our end customers' IT infrastructure, which often have different specifications, deploy products from multiple vendors, and utilize multiple protocol standards. Our customers' IT infrastructure is becoming more complex and we may be reliant on orchestration and interoperability with third party vendors on whom we are reliant for testing and support of new product versions and configurations. If we are unable to identify, develop and deploy new products and new product features on a timely basis, our business and results of operations may be harmed.

The current development cycle for our products is on average 12-24 months. The introduction of new products or product enhancements may shorten the life cycle of our existing products, or replace sales of some of our current products, thereby offsetting the benefit of even a successful product introduction, and may cause customers to defer purchasing our existing products in anticipation of the new products. This could harm our operating results by decreasing sales, increasing our inventory levels of older products and exposing us to greater risk of product obsolescence. We have also experienced, and may in the future experience, delays in developing and releasing new products and product enhancements. This has led to, and may in the future lead to, delayed sales, increased expenses and lower quarterly revenue than anticipated. Also, in the development of our products, we have experienced delays in the prototyping of our products, which in turn has led to delays in product introductions. In addition, complexity and difficulties in managing product transitions at the end-of-life stage of a product can create excess inventory of components associated with the outgoing product that can lead to increased expenses. Any or all of the above problems could materially harm our business and results of operations.

Our success depends on sales and continued innovation of our Application Delivery Controller and Application Security product lines

We expect to derive a significant portion of our net revenues from sales of our Application Delivery Controller (ADC) and Application Security products in the future. Implementation of our strategy depends upon these products being able to solve critical network availability, performance and security problems for our customers. If our products are unable to solve these problems for our customers or if we are unable to sustain the high levels of innovation in product feature sets needed to maintain leadership in what will continue to be a competitive market environment, our business and results of operations will be harmed.

Security vulnerabilities in our IT systems or products as well as unforeseen product errors could have a material adverse impact on our business results of operations, financial condition and reputation

In the ordinary course of business, we store sensitive data, including intellectual property, personal data, our proprietary business information and that of our customers, suppliers and business partners on our networks. In addition, we store sensitive data through cloud-based services that may be hosted by third parties and in data center infrastructure maintained by third parties. The secure maintenance of this information is critical to our operations and business strategy. Our information systems and those of our partners and customers are subject to the increasing threat of intrusions by a wide range of actors including computer programmers, hackers or sophisticated nation-state and nation-state supported actors or they may be compromised due to employee error or wrongful conduct, malfeasance, or other disruptions. Despite our security measures, and those of our third-party vendors, our information technology and infrastructure has experienced breaches or disruptions and may be vulnerable in the future to breach, attacks or disruptions. If any breach or attack compromises our networks, creates system disruptions or slowdowns or exploits security vulnerabilities of our products, the information stored on our networks or those of our customers could be accessed and modified, publicly disclosed, lost or stolen, and we may be subject to liability to our customers, suppliers, business partners and others, and suffer reputational and financial harm.

In addition, our products are used to manage critical applications and data for customers and third parties may attempt to exploit security vulnerabilities in our products as well as our internal IT systems. As we continue to focus on the development and marketing of security solutions, we become a bigger target for malicious computer hackers, including sophisticated nation-state and nation-state supported actors who wish to exploit security vulnerabilities in our products or IT systems.

We devote significant resources to addressing security vulnerabilities in our IT systems, product solutions and services through our efforts to engineer more secure solutions and services, enhance security and reliability features in our solutions and services, deploy security updates to address security vulnerabilities and seek to respond to known security incidents in sufficient time to minimize any potential adverse impact. Despite our efforts to harden our infrastructure and build secure solutions, from time to time, we experience attacks and other cyber-threats. These attacks can seek to exploit, among other things, known or unknown vulnerabilities in technology included in our IT infrastructure, solutions and services. For example, in January 2018, vulnerabilities in certain microprocessors were publicly announced under the names Spectre and Meltdown. While we have undertaken efforts to mitigate these vulnerabilities, they could render our internal systems, products, and solutions and services susceptible to a cyberattack.

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

Our products must successfully operate with products from other vendors. As a result, when problems occur in a network, it may be difficult to identify the source of the problem. The occurrence of software or hardware problems, whether caused by our products or another vendor's products, may result in the delay or loss of market acceptance of our products. The occurrence of any of these problems may harm our business and results of operations.

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

- expenditures of significant financial and product development resources in efforts to analyze, correct, eliminate, or work-around errors and defects or to address and eliminate vulnerabilities;
- remediation costs, such as liability for stolen assets or information, repairs or system damage;

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- increased cybersecurity protection costs which may include systems and technology changes, training, and engagement of third party experts and consultants;
- increased insurance premiums;
- loss of existing or potential customers or channel partners;
- loss of proprietary information leading to lost competitive positioning and lost revenues;
- negative publicity and damage to our reputation;
- 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.

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

Many of our business processes depend upon our IT systems, the systems and processes of third parties, and on interfaces with the systems of third parties. For example, our order entry system provides information to the systems of our contract manufacturers, which enables them to build and ship our products. If those systems fail or are interrupted, or if our ability to connect to or interact with one or more networks is interrupted, our processes may function at a diminished level or not at all. This would harm our ability to ship products, and our financial results may be harmed.

In addition, reconfiguring our IT systems or other business processes in response to changing business needs may be time-consuming and costly. To the extent this impacted our ability to react timely to specific market or business opportunities, our financial results may be harmed.

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

A wide variety of local, state, national, and international laws, directives 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 continue to evolve and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions and increased costs of compliance. Certain safe-harbor exemptions upon which the Company relies for data transfers have been challenged and may no longer be available to us in the future. Our failure to comply with applicable laws and regulations, or to protect such 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. Changing definitions of personal data and personal information, within the European Union, 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. The evolving data protection regulatory environment may require significant management attention and financial resources to analyze and modify our IT infrastructure to meet these changing requirements all of which could reduce our operating margins and impact our operating results and financial condition.

Our success depends on our key personnel and our ability to hire, retain and motivate qualified executives, sales and marketing, operations, product development and professional services personnel

Our success depends, in large part, on our ability to attract, engage, retain, and integrate qualified executives and other key employees throughout all areas of our business. In order to attract and retain executives and other key employees in a competitive marketplace, we must provide a competitive compensation package, including cash- and equity-based compensation. If we do not obtain the stockholder approval needed to continue granting equity compensation in a competitive manner, our ability to attract, retain, and motivate executives and key employees could be weakened. Failure to successfully hire executives and key employees or the loss of any executives and key employees could have a significant impact on our operations. We have recently experienced changes in our senior leadership team, including the appointment of Frank Pelzer as the Company's Chief Financial Officer effective May 21, 2018 and Chad Whalen as the Executive Vice President of Worldwide Sales effective July 9, 2018, and we expect to continue to see changes as we build the team that is needed to execute our strategy. Changes in our management team may be disruptive to our business, and any failure to successfully integrate key new

hires or promoted employees could adversely affect our business and results of operations. The complexity of our products and their integration into existing networks and ongoing support, as well as the sophistication of our sales and marketing effort, requires us to retain highly trained developers, professional services, customer support and sales personnel. Competition for qualified developers, professional services, customer support and sales personnel in our industry is intense, especially in Silicon Valley and Seattle where we have substantial operations and a need for highly skilled personnel, because of the limited number of people available with the necessary technical skills and understanding of our products. Also, 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, that they have violated non-compete obligations to their prior employers, or that their former employers own their inventions or other work product. Our ability to hire and retain these personnel may be adversely affected by volatility or reductions in the price of our common stock or our ability to get approval from shareholders to offer additional common stock to our employees, since these employees are generally granted restricted stock units. The loss of services of any of our key personnel, the inability to retain and attract qualified personnel in the future or delays in hiring qualified personnel may harm our business and results of operations. In addition, we recently announced a restructuring to re-align our workforce to match strategic and financial objectives and optimize resources for long term growth, including a reduction in force program impacting a number of employees. This restructuring could lead to increased attrition amongst those employees who were not directly affected by the reduction in force program.

We recently implemented a restructuring program, which we cannot guarantee will achieve its intended result

In July 2018, we announced a restructuring program to match strategic and financial objectives and optimize resources for long term growth. We incur substantial costs to implement restructuring plans, and our restructuring activities may subject us to litigation risks and expenses. Our past restructuring plans do not provide any assurance that additional restructuring plans will not be required or implemented in the future. In addition, our restructuring plans may have other consequences, such as attrition beyond our planned reduction in workforce, a negative effect on employee morale and productivity or our ability to attract highly skilled employees. Our competitors may also use our restructuring plans to seek to gain a competitive advantage over us. As a result, our restructuring plans may affect our revenue and other operating results in the future.

The average selling price of our products may decrease and our costs may increase, which may negatively impact revenues and profits

It is possible that the average selling prices of our products will decrease in the future in response to competitive pricing pressures, increased sales discounts, new product introductions by us or our competitors, as well as the shift to more software consumption based and “as a service based” models, or other factors. Therefore, in order to maintain our profits, we must develop and introduce new products and product enhancements on a timely basis and continually reduce our product costs. Our failure to do so could cause our revenue and profits to decline, which would harm our business and results of operations. In addition, we may experience substantial period-to-period fluctuations in future operating results due to the erosion of our average selling prices.

Our business may be harmed if our contract manufacturers are not able to provide us with adequate supplies of our products or if a single source of hardware assembly is lost or impaired

We outsource the manufacturing of our hardware platforms to third party contract manufacturers who assemble these hardware platforms to our specifications. We have experienced minor delays in shipments from contract manufacturers in the past. However, if we experience major delays in the future or other problems, such as inferior quality and insufficient quantity of product, any one or a combination of these factors may harm our business and results of operations. The inability of our contract manufacturers to provide us with adequate supplies of our products or the loss of one or more of our contract manufacturers may cause a delay in our ability to fulfill orders while we obtain a replacement manufacturer and may harm our business and results of operations. In particular, we currently subcontract manufacturing of our products to a single contract manufacturer with whom we do not have a long-term contract. If our arrangement with this single source of hardware assembly was terminated or otherwise impaired, and we were not able to engage another contract manufacturer in a timely manner, our business, financial condition and results of operation could be adversely affected.

If the demand for our products grows, we will need to increase our raw material and component purchases, contract manufacturing capacity and internal test and quality control functions. Any disruptions in product flow may limit our revenue, may harm our competitive position and may result in additional costs or cancellation of orders by our customers.

Our business could suffer if there are any interruptions or delays in the supply of hardware components from our third-party sources

We currently purchase several hardware components used in the assembly of our products from a number of single or limited sources. Lead times for these components vary significantly. The unavailability of suitable components, any

interruption or delay in the supply of any of these hardware components or the inability to procure a similar component from alternate sources at acceptable prices within a reasonable time, may delay assembly and sales of our products and, hence, our revenues, and may harm our business and results of operations.

It is difficult to predict our future operating results because we have an unpredictable sales cycle

Our products have a lengthy sales cycle and the timing of our revenue is difficult to predict. Historically, our sales cycle has ranged from approximately two to three months and has tended to lengthen as our products become increasingly complex. Also, as our distribution strategy is focused on a channel model, utilizing value-added resellers, distributors and systems integrators, the level of variability in the length of sales cycle across transactions has increased and made it more difficult to predict the timing of many of our sales transactions. Sales of our products require us to educate potential customers in their use and benefits. Sales of our products are subject to delays from the lengthy internal budgeting, approval and competitive evaluation processes that large enterprises and governmental entities may require. For example, customers frequently begin by evaluating our products on a limited basis and devote time and resources to testing our products before they decide whether or not to purchase. Customers may also defer orders as a result of anticipated releases of new products or enhancements by our competitors or us. As a result, our products have an unpredictable sales cycle that contributes to the uncertainty of our future operating results.

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

We sell our products and services through multiple distribution channels in the United States and internationally, including leading industry distributors, value-added resellers, systems integrators, service providers and other indirect channel partners. We have a limited number of agreements with companies in these channels, and we may not be able to increase our number of distribution relationships or maintain our existing relationships. Recruiting and retaining qualified channel partners and training them in our technologies requires significant time and resources. These channel partners may also market, sell and support products and services that are competitive with ours and may devote more resources to the marketing, sales and support of such competitive products. Our indirect sales channel 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 services to customers or violate laws or our corporate policies. If we are unable to establish or maintain our indirect sales channels, our business and results of operations will be harmed. In addition, five worldwide distributors of our products accounted for 60.1% of our total net revenue for fiscal year 2018. Four worldwide distributors of our products accounted for 56.6% of our total net revenue for fiscal year 2017. A substantial reduction or delay in sales of our products to these distribution partners, if not replaced by sales to other indirect channel partners and distributors, could harm our business, operating results and financial condition.

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

Sales to U.S. and foreign, federal, state, and local governmental agency end-customers account for a significant portion of our revenues and we may in the future increase sales to government entities. 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 like ours may change, thereby restricting our ability to sell into the federal government sector until we have attained the revised certification. Government demand and payment for our products and services may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our products and services. 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 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 services, 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 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 the requirements of the U.S. government, affecting our ability to sell these products to the U.S. government.

Misuse of our products could harm our reputation

Our products may be misused by end-customers or third parties that obtain access to our products. For example, our products could be used to censor private access to certain information on the Internet. Such use of our products for censorship could result in negative publicity and damage to our reputation. In addition, as many of our products are subject to export control regulations, diversion of our products to restricted third parties by others could result in investigations, penalties, fines, trade restrictions and negative publicity that could damage our reputation and materially impact our business, operating results, and financial condition.

Our quarterly and annual operating results may fluctuate in future periods, which may cause our stock price to fluctuate

Our quarterly and annual operating results have varied significantly in the past and could vary significantly in the future, which makes it difficult for us to predict our future operating results. Our operating results may fluctuate due to a variety of factors, many of which are outside of our control, including the changing and recently volatile U.S. and global economic environment, which may cause our stock price to fluctuate. In particular, we anticipate that the size of customer orders may increase as we continue to focus on larger business accounts. A delay in the recognition of revenue, even from just one account, may have a significant negative impact on our results of operations for a given period. In the past, a majority of our sales have been realized near the end of a quarter. Accordingly, a delay in an anticipated sale past the end of a particular quarter may negatively impact our results of operations for that quarter, or in some cases, that fiscal year. Additionally, we have exposure to the credit risks of some of our customers and sub-tenants. Although we have programs in place that are designed to monitor and mitigate the associated risk, there can be no assurance that such programs will be effective in reducing our credit risks adequately. We monitor individual payment capability in granting credit arrangements, seek to limit the total credit to amounts we believe our customers can pay and maintain reserves we believe are adequate to cover exposure for potential losses. If there is a deterioration of a sub-tenant's or a major customer's creditworthiness or actual defaults are higher than expected, future losses, if incurred, could harm our business and have a material adverse effect on our operating results. Further, our operating results may be below the expectations of securities analysts and investors in future quarters or years. Our failure to meet these expectations will likely harm the market price of our common stock. Such a decline could occur, and has occurred in the past, even when we have met our publicly stated revenue and/or earnings guidance.

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 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. In addition, any significant interruption in our information technology systems, which manage critical functions such as order processing, revenue recognition, financial forecasts, inventory and supply chain management, and trade compliance reviews, could result in delayed order fulfillment and decreased revenue for that 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, our third party contract manufacturers' inability to manufacture and 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, our inability to release new products on schedule, any failure of our systems related to order review and processing, or any delays in shipments based on trade compliance requirements, our revenue for that quarter could fall below our expectations, resulting in a decline in the trading price of our common stock.

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

A change in accounting policies can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New pronouncements and varying interpretations of existing pronouncements have occurred with frequency and may occur in the future. Changes to existing rules, or changes to the interpretations of existing rules, could lead to changes in our accounting practices, and such changes could adversely affect our reported financial results or the way we conduct our business.

If we are unable to maintain effective internal control over financial reporting, the accuracy and timeliness of our financial reporting may be adversely affected

As a public company, we are required to design and maintain proper and effective internal controls over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act of 2002 requires that we evaluate and determine the effectiveness of our internal controls over financial reporting and provide a management report on the internal controls over financial reporting, which must be attested to by our independent registered public accounting firm. We have an ongoing program to review the design of our internal controls framework in keeping with

changes in business needs, implement necessary changes to our controls design and test the system and process controls necessary to comply with these requirements. If in the future, our internal controls over financial reporting are determined to be not effective resulting in a material weakness, investor perceptions regarding the reliability of our financial statements may be adversely affected which could cause a decline in the market price of our stock and otherwise negatively affect our liquidity and financial condition.

We may have exposure to greater than anticipated tax liabilities

Our provision for income taxes is subject to volatility and could be adversely affected by nondeductible stock-based compensation, changes in the research and development tax credit laws, earnings being lower than anticipated in jurisdictions where we have lower statutory rates and being higher than anticipated in jurisdictions where we have higher statutory rates, transfer pricing adjustments, not meeting the terms and conditions of tax holidays or incentives, changes in the valuation of our deferred tax assets and liabilities, changes in actual results versus our estimates, or changes in tax laws, regulations, accounting principles or interpretations thereof, including changes to the tax laws applicable to corporate multinationals. The U.S., the European Union and its member states, and a number of other countries have made changes or are actively pursuing changes in this regard. In addition, like other companies, we may be subject to examination of our income tax returns by the U.S. Internal Revenue Service and other tax authorities. While we regularly assess the likelihood of adverse outcomes from such examinations and the adequacy of our provision for income taxes, there can be no assurance that such provision is sufficient and that a determination by a tax authority will not have an adverse effect on our results of operations.

The Tax Cuts and Jobs Act enacted on December 22, 2017 imposes a tax on the deemed repatriation of undistributed foreign earnings as of December 31, 2017. Effective January 1, 2018, the new U.S. tax law provides a deduction for the foreign-source portion of dividends received from specified foreign corporations. We have recorded a tax expense for the deemed repatriation of foreign earnings as of December 31, 2017, and any estimated deferred tax liabilities associated with a future repatriation of earnings to the United States. These estimates are based on existing legislative provisions and regulatory guidance, which are subject to change.

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

Our products are subject to U.S. export controls and may be exported outside the U.S. only with the required level of export license or through an export license exception because we incorporate encryption technology into our products. In addition, various countries regulate the import of certain encryption technology and have enacted laws that could limit our ability to distribute our products or our customers' ability to implement our products in those countries. Changes in our products or changes in export and import regulations may create delays in the introduction of our products in international markets, prevent our customers with international operations from deploying our products throughout their global systems or, in some cases, prevent the export or import of our products to certain countries altogether. Any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations or change in the countries, persons or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell our products would likely adversely affect our business, operating results and financial condition.

We may not be able to adequately protect our intellectual property, and our products may infringe on the intellectual property rights of third parties

We rely on a combination of patent, copyright, trademark and trade secret laws, and restrictions on disclosure of confidential and proprietary information to protect our intellectual property rights. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our products is difficult, and we cannot be certain that the steps we have taken will prevent misappropriation of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States.

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 the ordinary course of our business, we are involved in disputes and licensing discussions with others regarding their claimed proprietary rights and cannot provide assurance that we will always successfully defend ourselves against such claims and such matters are subject to many uncertainties and outcomes are not predictable with assurance. We expect that infringement claims may increase as the number of products and competitors in our market increases and overlaps occur. Also, as we have gained greater visibility, market exposure and competitive success, we face a higher risk of being the subject of intellectual property infringement claims. If we are found to infringe the proprietary rights of others, or if we otherwise settle such claims, we could be compelled to pay damages or royalties and either obtain a

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license to those intellectual property rights or alter our products so that they no longer infringe upon such proprietary rights. Any license could be very expensive to obtain or may not be available at all or may require us to make royalty payments which could adversely affect gross margins in future periods. The actual liability in any such matters may be materially different from our estimate, if any, which could result in the need to adjust the liability and record additional expenses. Similarly, changing our products or processes to avoid infringing upon the rights of others may be costly or impractical. In addition, we have initiated, and may in the future initiate, claims or litigation against third parties for infringement of our proprietary rights, or to determine the scope and validity of our proprietary rights or those of our competitors. Any of these claims, whether claims that we are infringing the proprietary rights of others, or vice versa, with or without merit, may be time-consuming, result in costly litigation and diversion of technical and management personnel or require us to cease using infringing technology, develop non-infringing technology or enter into royalty or licensing agreements. Further, our license agreements typically require us to indemnify our customers, distributors and resellers for infringement actions related to our technology, which could cause us to become involved in infringement claims made against our customers, distributors or resellers. Any of the above-described circumstances relating to intellectual property rights disputes could result in our business and results of operations being harmed.

We incorporate open source software into our products. Although we monitor our use of open source closely, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. We could also be subject to similar conditions or restrictions should there be any changes in the licensing terms of the open source software incorporated into our products. In either event, we could be required to seek licenses from third parties in order to continue offering our products, to re-engineer our products or to discontinue the sale of our products in the event re-engineering cannot be accomplished on a timely or successful basis, any of which could adversely affect our business, operating results and financial condition.

Many of our products include intellectual property licensed from third parties. In the future, it may be necessary to renew licenses for third party intellectual property or obtain new licenses for other technology. These third party licenses may not be available to us on acceptable terms, if at all. The inability to obtain certain licenses, or litigation regarding the interpretation or enforcement of license rights and related intellectual property issues, could have a material adverse effect on our business, operating results and financial condition. Furthermore, we license some third party intellectual property on a non-exclusive basis and this may limit our ability to protect our intellectual property rights in our products.

Our operating results are exposed to risks associated with international commerce

As our international sales increase, our operating results become more exposed to international operating risks. Additionally, our international sales and operations are subject to a number of risks, including the following:

- 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 regulatory practices, tariffs, and tax laws and treaties;
- 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, partners, distributors, and resellers to comply with both U.S. and foreign laws, including antitrust regulations, the U.S. Foreign Corrupt Practices Act, 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 that may impact financial results and result in restatements of, or irregularities in, financial statements;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- greater difficulty in recruiting local experienced personnel, and the costs and expenses associated with such activities;
- management communication and integration problems resulting from cultural and geographic dispersion;
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business;
- economic uncertainty around the world, including continued economic uncertainty as a result of sovereign debt issues in Europe; and
- general economic and political conditions in these foreign markets.

In addition, in June 2016, voters in the United Kingdom approved an advisory referendum to withdraw from the European Union (commonly referred to as Brexit). Subsequently, in March 2017, the United Kingdom's government invoked Article 50 of the Treaty on European Union, which formally triggered the two-year negotiation process to exit the European Union. The uncertainty surrounding the terms of the United Kingdom's withdrawal and its consequences, may cause our customers to closely monitor their costs and reduce their spending on our products and services.

We must hire and train experienced personnel to staff and manage our foreign operations. To the extent that we experience difficulties in recruiting, training, managing, and retaining an international staff, and specifically staff related to sales management and sales personnel, we may experience difficulties in sales productivity in foreign markets. We also enter into strategic distributor and reseller relationships with companies in certain international markets where we do not have a local presence. If we are not able to maintain successful strategic distributor relationships internationally or recruit additional companies to enter into strategic distributor relationships, our future success in these international markets could be limited. Business practices in the international markets that we serve may differ from those in the United States and may require us in the future to include terms other than our standard terms in customer contracts. We intend to continue expanding into international markets. Sales outside of the Americas represented 44.3% and 43.3% of our net revenues for the fiscal years ended September 30, 2018 and 2017, respectively.

These factors 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.

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

Our sales contracts are denominated in U.S. dollars, and therefore, substantially all of our revenue is not subject to foreign currency risk. However, a strengthening of the U.S. dollar could increase the real cost of our solutions to our end customers outside of the United States, which could adversely affect our financial condition and operating results. In addition, an increasing portion of our operating expenses is incurred outside the United States, is denominated in foreign currencies, and is subject to fluctuations due to changes in foreign currency exchange rates. If we become more exposed to currency fluctuations and are not able to successfully hedge against the risks associated with currency fluctuations, our operating results could be adversely affected. To date, we have not entered into any hedging arrangements with respect to foreign currency risk or other derivative instruments.

Changes in governmental regulations could negatively affect our revenues

Many of our products are subject to various regulations promulgated by the United States and various foreign governments including, but not limited to, environmental regulations and regulations implementing export license requirements and restrictions on the import or export of some technologies, especially encryption technology. Changes in governmental regulation and our inability or failure to obtain required approvals, permits or registrations could harm our international and domestic sales and adversely affect our revenues, business and operations.

New regulations related to conflict minerals may force us to incur additional expenses and could limit the supply and increase the costs of certain metals and minerals used in the manufacturing of our products

In August 2012, the SEC adopted new requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (or the Dodd-Frank Act) for companies that use certain minerals and derivative metals (referred to as conflict minerals, regardless of their country of origin) in their products, whether or not these products are manufactured by third parties. The Dodd-Frank Act requires companies to perform due diligence and disclose whether or not such minerals originate from the Democratic Republic of Congo or adjoining countries. We filed a report on Form SD with the SEC regarding such matters on May 31, 2018. These requirements could adversely affect the sourcing, availability and pricing of minerals or metals used in the manufacture of our products and the numerous components that go into our products all of which could adversely affect our business, financial condition, and operating results. In addition, we will incur additional costs to comply with the disclosure requirements, including costs related to determining the source of any relevant minerals and metals used in our products. We have a complex supply chain and many components are sourced through our contract manufacturer and we may not be able to sufficiently verify the origins for these minerals and metals used in our products through the due diligence procedures that we implement. As a result, we may face reputational challenges with our customers and other stakeholders and possible regulatory risk.

We face litigation risks

We are a party to lawsuits in the normal course of our business. Litigation in general, and intellectual property and securities litigation in particular, can be expensive, lengthy and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict. Responding to lawsuits has been, and will likely continue to be, expensive and time-consuming for us. An unfavorable resolution of these lawsuits could adversely affect our business, results of operations or financial condition.

Acquisitions present many risks and we may not realize the financial and strategic goals that are contemplated at the time of the transaction

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

Our inability to successfully operate and integrate newly-acquired businesses appropriately, effectively and in a timely manner, or to retain key personnel of any acquired business, could have a material adverse effect on our ability to take advantage of further growth in demand for integrated traffic management and security solutions and other advances in technology, as well as on our revenues, gross margins and expenses.

Anti-takeover provisions could make it more difficult for a third party to acquire us

Our Board of Directors has the authority to issue up to 10,000,000 shares of preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without any further vote or action by the shareholders. The rights of the holders of common stock may be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change of control of our company without further action by our shareholders and may adversely affect the voting and other rights of the holders of common stock. Further, certain provisions of our bylaws, including a provision limiting the ability of shareholders to raise matters at a meeting of shareholders without giving advance notice, may have the effect of delaying or preventing changes in control or management of our company, which could have an adverse effect on the market price of our common stock. Similarly, state anti-takeover laws in the State of Washington related to corporate takeovers may prevent or delay a change of control of our company.

Our stock price could be volatile, particularly during times of economic uncertainty and volatility in domestic and international stock markets

Our stock price has been volatile and has fluctuated significantly in the past. The trading price of our stock is likely to continue to be volatile and subject to fluctuations in the future. Some of the factors that could significantly affect the market price of our stock include:

- Actual or anticipated variations in operating and financial results;
- Analyst reports or recommendations;
- Rumors, announcements or press articles regarding our competitors' operations, management, organization, financial condition or financial statements; and
- Other events or factors, many of which are beyond our control.

The stock market in general and the market for technology companies in particular, have experienced extreme price and volume fluctuations. These fluctuations have often been unrelated or disproportionate to operating performance. The fluctuations may continue in the future and this could significantly impact the value of our stock and your investment.

If securities or industry analysts publish inaccurate or unfavorable research about our business, or discontinue publishing research about our business, the price and trading volume of our securities could decline

The trading market for our common stock is influenced by the research and reports that industry or securities analysts publish about us, our business, our market or our competitors. If one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, the price of our securities would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our securities could decrease, which might cause the price and trading volume of our securities to decline.

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

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 in Israel in the past year. 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. 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 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. Current or future tensions and conflicts in the Middle East could adversely affect our business, operating results, financial condition and cash flows.

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

A significant natural disaster, such as an earthquake, a fire, a flood, or a significant power outage could have a material adverse impact on our business, operating results, and financial condition. We have an administrative and product development office and a third party contract manufacturer located in the San Francisco Bay Area, a region known for seismic activity. In addition, natural disasters could affect our supply chain, manufacturing vendors, or logistics providers' ability to provide materials and perform services such as manufacturing products or assisting with shipments on a timely basis. In the event our or our service providers' information technology systems or manufacturing or logistics abilities are hindered by any of the events discussed above, shipments could be delayed, resulting in missed financial targets, such as revenue and shipment targets, for a particular quarter. In addition, cyber-attacks, acts of terrorism, or other geo-political unrest could cause disruptions in our business or the business of our supply chain, manufacturers, logistics providers, partners, or end-customers or the economy as a whole. Any disruption in the business of our supply chain, manufacturers, logistics providers, partners or end-customers that impacts sales at the end of a fiscal quarter could have a significant adverse impact on our quarterly results. All of the aforementioned risks may be further increased if the disaster recovery plans for us and our suppliers prove to be inadequate. To the extent that any of the above should result in delays or cancellations of customer orders, or the delay in the manufacture, deployment or shipment of our products, our business, financial condition and operating results would be adversely affected.

In addition to other risks listed in this "Risk Factors" section, factors that may affect our operating results include, but are not limited to:

- fluctuations in demand for our products and services due to changing market conditions, pricing conditions, technology evolution, seasonality, or other changes in the global economic environment;
- changes or fluctuations in sales and implementation cycles for our products and services;
- changes in the mix of our products and services, including increases in subscription based offerings;
- changes in the growth rate of the application delivery market;
- reduced visibility into our customers' spending and implementation plans;
- reductions in customers' budgets for data center and other IT purchases or delays in these purchases;
- changes in end-user customer attach rates and renewal rates for our services;
- fluctuations in our gross margins, including the factors described herein, which may contribute to such fluctuations;
- our ability to control costs, including operating expenses, the costs of hardware and software components, and other manufacturing costs;

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- our ability to develop, introduce and gain market acceptance of new products, technologies and services, and our success in new and evolving markets;
- any significant changes in the competitive environment, including the entry of new competitors or the substantial discounting of products or services;
- the timing and execution of product transitions or new product introductions, and related inventory costs;
- variations in sales channels, product costs, or mix of products sold;
- our ability to establish and manage our distribution channels, and the effectiveness of any changes we make to our distribution model;
- the ability of our contract manufacturers and suppliers to provide component parts, hardware platforms and other products in a timely manner;
- benefits anticipated from our investments in sales, marketing, product development, manufacturing or other activities;
- impacts on our overall tax rate caused by any reorganization in our corporate structure;
- changes in tax laws or regulations, or other accounting rules; and
- general economic conditions, both domestically and in our foreign markets.

Item 1B. *Unresolved Staff Comments*

Not applicable.

Item 2. *Properties*

We lease our principal administrative, sales, marketing, research and development facilities, which are located in Seattle, Washington and consist of approximately 320,000 square feet. In April 2010, we amended and restated the lease agreement for three of the buildings that serve as our corporate headquarters. The lease commenced in April, July and August of 2010 for various sections of the first building; and August 2010 for the second and third buildings. The lease for these three buildings will expire in 2022 with an option for renewal. In January 2016, we entered into an agreement to lease approximately 20,000 square feet of additional space in a building near our corporate headquarters. This lease commenced in July of 2016 and will expire in 2022 with an option for renewal. In October 2006, we entered into an agreement to lease a building adjacent to the buildings that serve as our corporate headquarters. This lease expired in May of 2018.

On May 3, 2017, we entered into an agreement to lease approximately 515,000 square feet of office space in Seattle, Washington that will serve as our new corporate headquarters. The initial term of the lease is 14.5 years and is expected to commence on the latter of (i) April 1, 2019 or (ii) 10 months after the substantial completion date of the construction of the Premises. This lease will expire in 2033 with an option for renewal.

We believe that our existing properties are in good condition and suitable for the conduct of our business. We also lease office space for our product development personnel in Spokane, Washington and Bellevue, Washington, San Jose, California, Louisville, Colorado, Lowell, Massachusetts, Israel, and Poland and for our sales and support personnel in California, Georgia, Illinois, Kansas, Missouri, New York, Washington D.C., Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Colombia, Denmark, Finland, France, Germany, Hong Kong, India, Indonesia, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, the Philippines, Poland, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, Taiwan, Thailand, Turkey, the United Arab Emirates, and the United Kingdom. We believe that our future growth can be accommodated by our current facilities or by leasing additional space if necessary.

Item 3. *Legal Proceedings*

See Note 7 - Commitments and Contingencies of the Notes to Financial Statements (Part II, Item 8 of this Form 10-K) for information regarding legal proceedings in which we are involved.

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 Prices of Common Stock

Our common stock is traded on the Nasdaq Global Select Market under the symbol "FFIV." The following table sets forth the high and low sales prices of our common stock as reported on the Nasdaq Global Select Market.

	Fiscal Year 2018		Fiscal Year 2017	
	High	Low	High	Low
First Quarter	\$ 136.35	\$ 114.63	\$ 148.34	\$ 114.45
Second Quarter	\$ 153.91	\$ 131.31	\$ 149.50	\$ 130.61
Third Quarter	\$ 183.27	\$ 138.67	\$ 142.92	\$ 124.27
Fourth Quarter	\$ 199.71	\$ 168.77	\$ 130.00	\$ 114.76

The last reported sales price of our common stock on the Nasdaq Global Select Market on November 15, 2018 was \$179.20.

As of November 15, 2018, there were 47 holders of record of our common stock. As many of our shares of common stock are held by brokers and other institutions on behalf of shareholders, we are unable to estimate the total number of beneficial holders of our common stock represented by these record holders.

Dividend Policy

Our policy has been to retain cash for use in our business, for investment in acquisitions and to repurchase shares of our common stock. Accordingly, we have not paid dividends and do not anticipate declaring dividends on our common stock in the foreseeable future.

Unregistered Securities Sold in 2018

We did not sell any unregistered shares of our common stock during the fiscal year 2018.

Issuer Purchases of Equity Securities

On October 25, 2017, we announced that our Board of Directors authorized an additional \$1.0 billion for our common stock share repurchase program. This new authorization is incremental to the existing \$3.4 billion program, initially approved in October 2010 and expanded in each fiscal year. Acquisitions for the share repurchase programs will be made from time to time in private transactions or open market purchases as permitted by securities laws and other legal requirements. The programs can be terminated at any time. During fiscal year 2018, we repurchased and retired 4,074,170 shares at an average price of \$147.29 per share and as of September 30, 2018, we had \$573.6 million remaining authorized to purchase shares.

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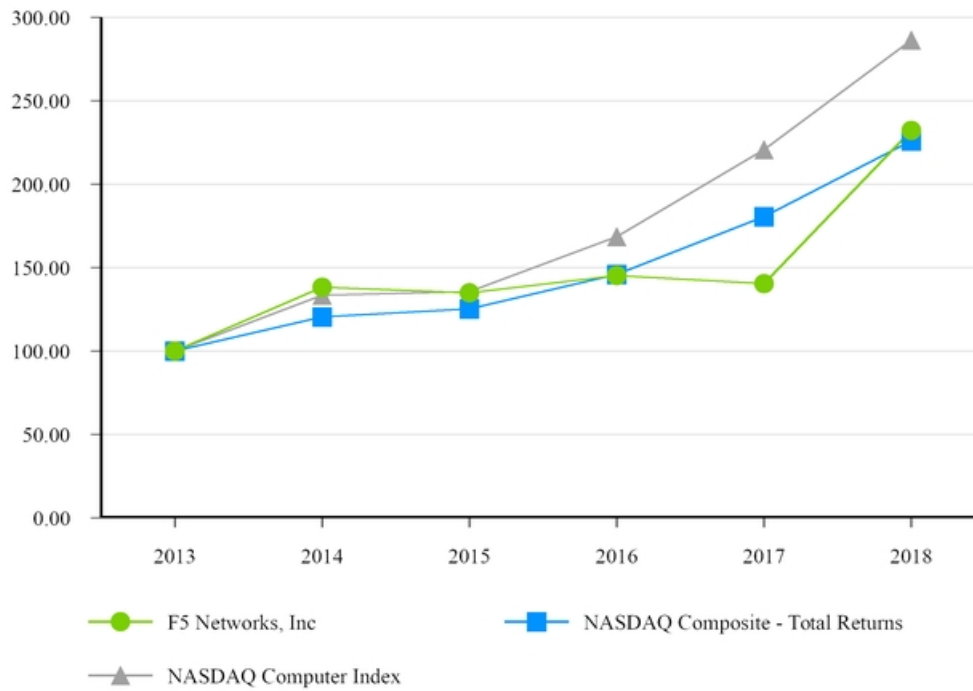
Shares repurchased and retired as of September 30, 2018 are as follows (in thousands, except shares and per share data):

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased per the Publicly Announced Plan	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan
October 1, 2017 — October 31, 2017	100,000	\$ 121.38	100,000	\$ 1,161,514
November 1, 2017 — November 30, 2017	1,142,610	\$ 120.68	1,142,610	\$ 1,023,627
December 1, 2017 — December 31, 2017	—	\$ —	—	\$ 1,023,627
January 1, 2018 — January 31, 2018	200,000	\$ 138.56	200,000	\$ 995,914
February 1, 2018 — February 28, 2018	865,326	\$ 141.34	865,326	\$ 873,606
March 1, 2018 — March 31, 2018	—	\$ —	—	\$ 873,606
April 1, 2018 — April 30, 2018	—	\$ —	—	\$ 873,606
May 1, 2018 — May 31, 2018	902,542	\$ 166.22	902,542	\$ 723,588
June 1, 2018 — June 30, 2018	—	\$ —	—	\$ 723,588
July 1, 2018 — July 31, 2018	100,000	\$ 175.07	100,000	\$ 706,081
August 1, 2018 — August 31, 2018	763,692	\$ 173.51	763,692	\$ 573,571
September 1, 2018 — September 30, 2018	—	\$ —	—	\$ 573,571

Performance Measurement Comparison of Shareholder Return

The following graph compares the annual percentage change in the cumulative total return on shares of our common stock, the Nasdaq Composite Index and the Nasdaq Computer Index for the period commencing September 30, 2013, and ending September 30, 2018.

**Comparison of Cumulative Total Return
On Investment Since September 30, 2013***



The Company's closing stock price on September 28, 2018, the last trading day of the Company's 2018 fiscal year, was \$199.42 per share.

* Assumes that \$100 was invested September 30, 2013 in shares of Common Stock and in each index, and that all dividends were reinvested. Shareholder returns over the indicated period should not be considered indicative of future shareholder returns.

Item 6. Selected Financial Data

The following selected consolidated historical financial data are derived from our audited financial statements. The consolidated balance sheet data as of September 30, 2018 and 2017 and the consolidated income statement data for the years ended September 30, 2018, 2017 and 2016 are derived from our audited consolidated financial statements and related notes that are included elsewhere in this report. The consolidated balance sheet data as of September 30, 2016, 2015 and 2014 and the consolidated income statement data for the years ended September 30, 2015 and 2014 are derived from our audited consolidated financial statements and related notes which are not included in this report. The information set forth below should be read in conjunction with our historical financial statements, including the notes thereto, and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” included elsewhere in this report.

	Years Ended September 30,				
	2018	2017	2016	2015	2014
(In thousands, except per share data)					
Consolidated Income Statement Data					
Net revenues					
Products	\$ 960,108	\$ 964,662	\$ 944,469	\$ 991,539	\$ 936,130
Services	1,201,299	1,125,379	1,050,565	928,284	795,916
Total	2,161,407	2,090,041	1,995,034	1,919,823	1,732,046
Cost of net revenues					
Products	181,061	176,032	166,624	174,225	158,788
Services	180,420	177,453	170,581	158,036	151,171
Total	361,481	353,485	337,205	332,261	309,959
Gross profit	1,799,926	1,736,556	1,657,829	1,587,562	1,422,087
Operating expenses					
Sales and marketing	664,135	652,239	628,743	602,540	558,284
Research and development	366,084	350,365	334,227	296,583	263,792
General and administrative	160,382	156,887	138,431	135,540	106,454
Litigation expense (1)	—	391	9,051	—	—
Restructuring charges (2)	18,426	12,718	—	—	—
Total	1,209,027	1,172,600	1,110,452	1,034,663	928,530
Income from operations	590,899	563,956	547,377	552,899	493,557
Other income, net	12,861	11,561	2,514	8,445	3,785
Income before income taxes	603,760	575,517	549,891	561,344	497,342
Provision for income taxes	150,071	154,756	184,036	196,330	186,159
Net income	\$ 453,689	\$ 420,761	\$ 365,855	\$ 365,014	\$ 311,183
Net income per share — basic	\$ 7.41	\$ 6.56	\$ 5.43	\$ 5.07	\$ 4.13
Weighted average shares — basic	61,262	64,173	67,433	71,944	75,395
Net income per share — diluted	\$ 7.32	\$ 6.50	\$ 5.38	\$ 5.03	\$ 4.09
Weighted average shares — diluted	62,013	64,775	67,984	72,547	76,092
Consolidated Balance Sheet Data					
Cash, cash equivalents, and short-term investments	\$ 1,039,412	\$ 1,016,928	\$ 882,395	\$ 774,342	\$ 645,379
Restricted cash (3)	1,187	1,224	1,151	1,149	798
Long-term investments	411,184	284,802	276,375	397,656	482,917
Total assets	2,605,476	2,476,489	2,306,323	2,312,290	2,184,950
Long-term liabilities	365,551	312,554	276,823	240,439	178,659
Total shareholders’ equity	1,285,492	1,229,392	1,185,262	1,316,728	1,369,310

- (1) Litigation expense primarily represents a patent-related jury verdict and legal fees associated with the litigation.
- (2) Restructuring charges represent severance and other employee-related costs associated with workforce reductions that took place in the fourth quarters of fiscal 2018 and 2017.
- (3) Restricted cash represents escrow accounts established in connection with lease agreements for our facilities.

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

The following discussion of our financial condition and results of operations contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. These statements include, but are not limited to, statements about our plans, objectives, expectations, strategies, intentions or other characterizations of future events or circumstances and are generally identified by the words "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates," and similar expressions. These forward-looking statements are based on current information and expectations and are subject to a number of risks and uncertainties. Our actual results could differ materially from those expressed or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed under "Item 1A. Risk Factors" herein and in other documents we file from time to time with the Securities and Exchange Commission. We assume no obligation to revise or update any such forward-looking statements.

Overview

F5 is a global provider of application services designed to ensure the fast, secure, and reliable delivery of applications and data in multi-cloud environments and data centers. Our products include hardware-based software, software-only solutions, cloud-based services, and managed service offerings that accelerate, optimize, secure, and improve application performance for all types of deployment scenarios. We market and sell our products primarily through multiple indirect sales channels in the Americas (primarily the United States); Europe, the Middle East, and Africa (EMEA); Japan; and the Asia Pacific region (APAC). Enterprise customers (Fortune 1000 or Business Week Global 1000 companies) in the technology, telecommunications, financial services, transportation, education, manufacturing, and health care industries, along with government customers, continue to make up the largest percentage of our customer base.

Our management team monitors and analyzes a number of key performance indicators in order to manage our business and evaluate our financial and operating performance on a consolidated basis. Those indicators include:

- *Revenues.* The majority of our revenues are derived from sales of our application delivery controller (ADC) products including our BIG-IP appliances and high end VIPRION chassis and related software modules and our software-only Virtual Editions; Local Traffic Manager (LTM), DNS Services (formerly Global Traffic Manager); Advanced Firewall Manager (AFM) and Policy Enforcement Manager (PEM), that leverage the unique performance characteristics of our hardware and software architecture; and products that incorporate acquired technology, including Application Security Manager (ASM) and Access Policy Manager (APM); and the WebSafe, MobileSafe, Secure Web Gateway and Silverline DDoS and Application security offerings which are sold to customers on a subscription basis. We also derive revenues from the sales of services including annual maintenance contracts, training and consulting services. We carefully monitor the sales mix of our revenues within each reporting period. We believe customer acceptance rates of our new products and feature enhancements are indicators of future trends. We also consider overall revenue concentration by customer and by geographic region as additional indicators of current and future trends.
- *Cost of revenues and gross margins.* We strive to control our cost of revenues and thereby maintain our gross margins. Significant items impacting cost of revenues are hardware costs paid to our contract manufacturers, third-party software license fees, amortization of developed technology and personnel and overhead expenses. Our margins have remained relatively stable; however, factors such as sales price, product and services mix, inventory obsolescence, returns, component price increases and warranty costs could significantly impact our gross margins from quarter to quarter and represent significant indicators we monitor on a regular basis.
- *Operating expenses.* Operating expenses are substantially driven by personnel and related overhead expenses. Existing headcount and future hiring plans are the predominant factors in analyzing and forecasting future operating expense trends. Other significant operating expenses that we monitor include marketing and promotions, travel, professional fees, computer costs related to the development of new products and provision of services, facilities and depreciation expenses.
- *Liquidity and cash flows.* Our financial condition remains strong with significant cash and investments and no long term debt. The increase in cash and investments for fiscal year 2018 was primarily due to cash provided by operating activities of \$761.1 million, partially offset by cash used to repurchase outstanding common stock under our share repurchase program of \$600.1 million and capital expenditures of \$53.5 million. Going forward, we believe the primary driver of cash flows will be net income from operations. Capital expenditures for fiscal year 2018 were primarily related to the expansion of our facilities to support our operations worldwide as well as investments in information technology infrastructure and equipment purchases to support our core business activities. We will continue to evaluate possible acquisitions of, or investments in businesses, products, or technologies that we believe are strategic, which may require the use of cash.
- *Balance sheet.* We view cash, short-term and long-term investments, deferred revenue, accounts receivable balances and days sales outstanding as important indicators of our financial health. Deferred revenues continued to increase in fiscal 2018

due to growth in the amount of annual maintenance contracts purchased on new products and maintenance renewal contracts related to our existing product installation base. Our days sales outstanding for the fourth quarter of fiscal year 2018 was 47.

Critical Accounting Policies

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

We believe that, of our significant accounting policies, which are described in Note 1 of the notes to the consolidated financial statements, the following accounting policies involve a greater degree of judgment and complexity. Accordingly, these are the policies we believe are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations.

Revenue Recognition. We sell products through distributors, resellers, and directly to end users. Revenue is recognized provided that all of the following criteria have been met:

- Persuasive evidence of an arrangement exists. Evidence of an arrangement generally consists of a purchase order issued pursuant to the terms and conditions of a distributor, reseller or end user agreement.
- Delivery has occurred. We use shipping or related documents, or written evidence of customer acceptance, when applicable, to verify delivery or completion of any performance terms.
- The sales price is fixed or determinable. We assess whether the sales price is fixed or determinable based on payment terms associated with the transaction and whether the sales price is subject to refund or adjustment.
- Collectability is reasonably assured. We assess collectability primarily based on the creditworthiness of the customer as determined by credit checks and related analysis, as well as the customer's payment history.

Revenue from the sale of products is generally recognized when the product has been shipped and the customer is obligated to pay for the product. When rights of return are present and we cannot estimate returns, revenue is recognized when such rights of return lapse. Payment terms to domestic customers are generally net 30 days to net 45 days. Payment terms to international customers range from net 30 days to net 120 days based on normal and customary trade practices in the individual markets.

Revenues for post-contract customer support (PCS) are recognized on a straight-line basis over the service contract term. PCS includes a limited period of telephone support, updates, repair or replacement of any failed product or component that fails during the term of the agreement, bug fixes and rights to upgrades, when and if available. Consulting services are customarily billed at fixed hourly rates, plus out-of-pocket expenses, and revenues are recognized when the consulting has been completed. Training revenue is recognized when the training has been completed.

Arrangement consideration is first allocated between software (consisting of nonessential and stand-alone software) and non-software deliverables. The majority of our products are hardware appliances which contain software essential to the overall functionality of the products. Hardware appliances are generally sold with PCS and on occasion, with consulting and/or training services. Arrangement consideration in such multiple element transactions is allocated to each element based on a fair value hierarchy, where the selling price for an element is based on vendor specific objective evidence (VSOE), if available, third-party evidence (TPE), if available and VSOE is not available; or the best estimate of selling price (BESP), if neither VSOE or TPE is available.

For software deliverables, we allocate revenue between multiple elements based on software revenue recognition guidance. Software revenue recognition guidance requires revenue earned on software arrangements involving multiple elements to be allocated to each element based on the relative fair values of those elements. The fair value of an element must be based on VSOE. Where fair value of delivered elements is not available, revenue is recognized on the "residual method" based on the fair value of undelivered elements. If evidence of fair value of one or more undelivered elements does not exist, all revenue is deferred and recognized at the earlier of the delivery of those elements or the establishment of fair value of the remaining undelivered elements.

We establish VSOE for our products, PCS, consulting and training services based on the sales price charged for each element when sold separately. The sales price is discounted from the applicable list price based on various factors including the type of customer, volume of sales, geographic region and program level. Our list prices are generally not fair value as discounts

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may be given based on the factors enumerated above. We use historical sales transactions to determine whether VSOE can be established for each of the elements. In most instances, VSOE of fair value is the sales price of actual standalone (unbundled) transactions within the past 12 month period, when a substantial majority of transactions (more than 80%) are priced within a narrow range, which we have determined to be plus or minus 15% of the median sales price.

We believe that the VSOE of fair value of training and consulting services is represented by the billable rate per hour, based on the rates charged to customers when they purchase standalone training or consulting services. The price of consulting services is not based on the type of customer, volume of sales, geographic region or program level.

We are typically not able to determine VSOE or TPE for non-software products. TPE is determined based on competitor prices for similar elements when sold separately. Generally, our go-to-market strategy differs from that of other competitive products or services in its markets and our offerings contain a significant level of differentiation such that the comparable pricing of products with similar functionality cannot be obtained. Furthermore, we are unable to reliably determine the selling prices on a stand-alone basis of similar products offered by our competitors.

When we are unable to establish selling price using VSOE or TPE, we use BESP in our allocation of arrangement consideration. The objective of BESP is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis. We have been able to establish BESP through the list price, less a discount deemed appropriate to maintain a reasonable gross margin. Management regularly reviews gross margin information at the consolidated level. Non-software product BESP is determined through our review of historical sales transactions within the past 12 month period. Additional factors considered in determining an appropriate BESP include, but are not limited to, cost of products, pricing practices, geographies, customer classes, and distribution channels.

We regularly validate the VSOE of fair value and BESP for elements in its multiple element arrangements. We account for taxes collected from customers and remitted to governmental authorities on a net basis and excluded these amounts from revenues.

Accounting for Income Taxes. We are required to estimate our income taxes in each of the jurisdictions in which we operate as part of the process of preparing our consolidated financial statements. This process involves estimating our actual current tax exposure, including assessing the risks associated with tax audits, together with assessing temporary differences resulting from the different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. Due to the evolving nature and complexity of tax rules combined with the large number of jurisdictions in which we operate, it is possible that our estimates of our tax liability could change in the future, which may result in additional tax liabilities and adversely affect our results of operations, financial condition and cash flows.

Results of Operations

The following discussion and analysis should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

	Years Ended September 30,		
	2018	2017	2016
(in thousands, except percentages)			
Net Revenues			
Products	\$ 960,108	\$ 964,662	\$ 944,469
Services	1,201,299	1,125,379	1,050,565
Total	<u>\$ 2,161,407</u>	<u>\$ 2,090,041</u>	<u>\$ 1,995,034</u>
Percentage of net revenues			
Products	44.4%	46.2%	47.3%
Services	55.6	53.8	52.7
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Net Revenues. Total net revenues increased 3.4% in fiscal year 2018 from fiscal year 2017, compared to an increase of 4.8% in fiscal year 2017 from the prior year. Overall revenue growth for the year ended September 30, 2018 was primarily due to increased service revenues as a result of our increased installed base of products. International revenues represented 49.6%, 48.6% and 48.9% of net revenues in fiscal years 2018, 2017 and 2016, respectively. We expect international sales will continue to represent a significant portion of net revenues, although we cannot provide assurance that international revenues as a percentage of net revenues will remain at current levels.

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Net product revenues decreased 0.5% in fiscal year 2018 from fiscal year 2017, compared to an increase of 2.1% in fiscal year 2017 from the prior year. The decrease of \$4.6 million in net product sales for fiscal year 2018 was due to a decrease in systems revenue, partially offset by an increase in software revenue. The increase of \$20.2 million in net product sales for fiscal year 2017 was primarily due to an increase of \$27.7 million in sales of our application services solutions. Growth in sales of our software-only Virtual Editions contributed to the increase in product revenue for fiscal year 2017.

Net service revenues increased 6.7% in fiscal year 2018 from fiscal year 2017, compared to an increase of 7.1% in fiscal year 2017 from the prior year. The increases in service revenue were the result of increased purchases or renewals of maintenance contracts driven by additions to our installed base of products.

The following distributors of our products accounted for more than 10% of total net revenue:

	Years Ended September 30,		
	2018	2017	2016
Ingram Micro, Inc.	16.6%	16.1%	14.9%
Tech Data ¹	11.6%	12.4%	13.3%
Synnex Corporation ²	10.8%	—	—
Arrow ECS	10.7%	10.4%	10.1%
Westcon Group, Inc. ²	10.4%	17.7%	18.7%

- (1) On February 27, 2017, Tech Data completed the acquisition of Avnet Technology Solutions. Revenues for the year ended September 30, 2017 represent combined revenues for Tech Data and Avnet while revenues for years ended September 30, 2016 and 2015 represent revenues from Avnet only.
- (2) On September 1, 2017, Synnex Corporation completed the acquisition of Westcon Americas.

The following distributors of our products accounted for more than 10% of total receivables:

	September 30,	
	2018	2017
Ingram Micro, Inc.	16.6%	—
Synnex Corporation ¹	10.3%	13.6%
Arrow ECS	—	11.5%

- (1) On September 1, 2017, Synnex Corporation completed the acquisition of Westcon Americas.

No other distributors accounted for more than 10% of total net revenue or receivables.

	Years Ended September 30,		
	2018	2017	2016
(in thousands, except percentages)			
Cost of net revenues and Gross Margin			
Products	\$ 181,061	\$ 176,032	\$ 166,624
Services	180,420	177,453	170,581
Total	361,481	353,485	337,205
Gross profit	\$ 1,799,926	\$ 1,736,556	\$ 1,657,829
Percentage of net revenues and Gross Margin (as a percentage of related net revenue)			
Products	18.9%	18.2%	17.6%
Services	15.0	15.8	16.2
Total	16.7	16.9	16.9
Gross profit	83.3%	83.1%	83.1%

Cost of Net Product Revenues. Cost of net product revenues consist of finished products purchased from our contract manufacturers, manufacturing overhead, freight, warranty, provisions for excess and obsolete inventory and amortization expenses in connection with developed technology from acquisitions. Cost of net product revenues increased to \$181.1 million in fiscal year 2018, up 2.9% from the prior year, primarily due to an increase in payments to our contract manufacturers due to

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global memory shortages, as well as an increase in sales of our subscription-based Silverline services. Cost of net product revenues increased to \$176.0 million in fiscal year 2017 from \$166.6 million in fiscal year 2016, primarily due to a higher volume of hardware and software sales as well as an increase in sales of our subscription-based Silverline services.

Cost of Net Service Revenues. Cost of net service revenues consist of the salaries and related benefits of our professional services staff, travel, facilities and depreciation expenses. Cost of net service revenues as a percentage of net service revenues decreased to 15.0% in fiscal year 2018 compared to 15.8% in fiscal year 2017 and 16.2% in fiscal year 2016, primarily due to the scalability of our existing customer support infrastructure and increased revenue from maintenance contracts. Professional services headcount at the end of fiscal 2018 decreased to 891 from 895 at the end of fiscal 2017. Professional services headcount at the end of fiscal year 2017 decreased to 895 from 903 at the end of fiscal 2016. In addition, cost of net service revenues included stock-based compensation expense of \$18.8 million, \$19.3 million and \$16.6 million for fiscal years 2018, 2017 and 2016, respectively.

	Years Ended September 30,		
	2018	2017	2016
	(in thousands, except percentages)		
Operating expenses			
Sales and marketing	\$ 664,135	\$ 652,239	\$ 628,743
Research and development	366,084	350,365	334,227
General and administrative	160,382	156,887	138,431
Litigation expense	—	391	9,051
Restructuring charges	18,426	12,718	—
Total	<u>\$ 1,209,027</u>	<u>\$ 1,172,600</u>	<u>\$ 1,110,452</u>
Operating expenses (as a percentage of net revenue)			
Sales and marketing	30.7%	31.2%	31.5%
Research and development	16.9	16.8	16.8
General and administrative	7.4	7.5	6.9
Litigation expense	—	—	0.5
Restructuring charges	0.9	0.6	—
Total	<u>55.9%</u>	<u>56.1%</u>	<u>55.7%</u>

Sales and Marketing. Sales and marketing expenses consist of the salaries, commissions and related benefits of our sales and marketing staff, the costs of our marketing programs, including public relations, advertising and trade shows, travel, facilities, and depreciation expenses. Sales and marketing expense increased 1.8% in fiscal year 2018 from the prior year, as compared to a year over year increase of 3.7% in fiscal year 2017. The increase in sales and marketing expense for fiscal year 2018 was primarily due to increases in commissions and personnel costs of \$11.4 million, compared to the prior year. The increases in commissions and personnel costs were driven by growth in sales and marketing employee headcount during fiscal year 2018. However, sales and marketing headcount at the end of fiscal year 2018 decreased to 1,682 from 1,711 at the end of fiscal year 2017 due to a reduction in workforce that took place in the fourth quarter of fiscal year 2018. In fiscal year 2017, the increase in sales and marketing expense was primarily due to increases in commissions and personnel costs of \$15.7 million, compared to the prior year. The increases in commissions and personnel costs were driven by growth in sales and marketing employee headcount during fiscal year 2017 over the prior year. However, sales and marketing headcount at the end of fiscal year 2017 decreased to 1,711 from 1,741 at the end of fiscal year 2016 due to a reduction in workforce that took place in the fourth quarter of fiscal year 2017. Sales and marketing expense included stock-based compensation expense of \$61.5 million, \$69.7 million and \$61.2 million for fiscal years 2018, 2017 and 2016, respectively.

Research and Development. Research and development expenses consist of the salaries and related benefits of our product development personnel, prototype materials and other expenses related to the development of new and improved products, facilities and depreciation expenses. Research and development expense increased 4.5% in fiscal year 2018, compared to the prior year. The increase in research and development expense for fiscal year 2018 was primarily due to increased personnel costs of \$5.4 million, compared to the prior year. The increase in personnel costs were driven by growth in research and development employee headcount during fiscal year 2018. Research and development headcount at the end of fiscal year 2018 increased to 1,268 from 1,192 at the end of fiscal year 2017. In addition, fees paid to outside consultants for product development advisory services increased \$8.7 million for fiscal year 2018, compared to the prior year. In fiscal year 2017, research and development expense increased 4.8%, compared to the prior year. The increase in research and development expense for fiscal year 2017 was primarily due to increased personnel costs of \$13.3 million, compared to the prior year. The increase in personnel costs were driven by growth in research and development employee headcount during fiscal year 2017.

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However, research and development headcount at the end of fiscal year 2017 decreased to 1,192 from 1,211 at the end of fiscal year 2016 due to a reduction in workforce that took place in the fourth quarter of fiscal year 2017. Research and development expense included stock-based compensation expense of \$47.3 million, \$53.4 million and \$52.6 million for fiscal years 2018, 2017 and 2016, respectively. We expect research and development expenses to be consistent as a percentage of net revenue in the foreseeable future.

General and Administrative. General and administrative expenses consist of the salaries, benefits and related costs of our executive, finance, information technology, human resource and legal personnel, third-party professional service fees, bad debt charges, facilities and depreciation expenses. General and administrative expense increased 2.2% in fiscal year 2018, compared to the prior year. The increase in general and administrative expense for fiscal year 2018 was primarily due to an increase in personnel costs of \$1.7 million, compared to the prior year, and an increase in taxes of \$3.1 million, compared to the prior year. In fiscal year 2017, general and administrative expense increased 13.3% compared to the prior year. The increase in general and administrative expense for fiscal year 2017 was primarily due to an increase in personnel costs of \$7.4 million, compared to the prior year. General and administrative headcount at the end of fiscal year 2018 increased to 475 from 471 at the end of fiscal year 2017 and 447 at the end of fiscal year 2016. General and administrative expense included stock-based compensation expense of \$27.9 million, \$30.8 million and \$24.5 million for fiscal years 2018, 2017 and 2016, respectively.

Litigation expense. In the second quarter of fiscal 2016, we accrued a litigation expense of \$8.9 million, which included a patent-related jury verdict for \$6.4 million and \$2.5 million in legal fees and other costs associated with the litigation. The accrual was adjusted by immaterial amounts in the third and fourth quarters of fiscal 2016 and the second and third quarters of fiscal year 2017 to better reflect our total expected litigation expense. See Note 7 - Commitments and Contingencies of the Notes to Financial Statements (Part II, Item 8 of this Form 10-K) for additional information regarding this litigation.

Restructuring charges. In September 2018, we initiated a restructuring plan to match strategic and financial objectives and optimize resources for long term growth. As a result of these initiatives, we recorded a restructuring charge of \$18.4 million in the fourth quarter of fiscal year 2018 related to a reduction in workforce. In September 2017, we initiated a restructuring plan to reduce our operating expenses and better align our workforce and costs with market opportunities, product development and business strategies. As a result of these initiatives, we recorded a restructuring charge of \$12.7 million in the fourth quarter of fiscal year 2017 related to a reduction in workforce.

	Years Ended September 30,		
	2018	2017	2016
(in thousands, except percentages)			
Other income and income taxes			
Income from operations	\$ 590,899	\$ 563,956	\$ 547,377
Other income, net	12,861	11,561	2,514
Income before income taxes	603,760	575,517	549,891
Provision for income taxes	150,071	154,756	184,036
Net income	\$ 453,689	\$ 420,761	\$ 365,855
Other income and income taxes (as percentage of net revenue)			
Income from operations	27.3%	27.0%	27.4%
Other income, net	0.6	0.5	0.1
Income before income taxes	27.9	27.5	27.5
Provision for income taxes	6.9	7.4	9.2
Net income	21.0%	20.1%	18.3%

Other Income, Net. Other income, net, consists primarily of interest income and foreign currency transaction gains and losses. Other income, net increased \$1.3 million in fiscal year 2018, as compared to fiscal year 2017 and increased \$9.0 million in fiscal year 2017, as compared to fiscal year 2016. Interest income was \$17.0 million, \$8.5 million and \$6.6 million for fiscal years 2018, 2017 and 2016, respectively. The increase in other income, net for fiscal year 2018 was primarily due to an increase of \$8.5 million in interest income, compared to the prior year, partially offset by foreign currency losses of \$7.5 million, compared to the prior year. The increase in other income, net for fiscal year 2017 as compared to fiscal year 2016 was primarily due to \$7.0 million in foreign currency gains, compared to the prior year.

Provision for Income Taxes. We recorded a 24.9% provision for income taxes for fiscal year 2018, compared to 26.9% in fiscal year 2017 and 33.5% in fiscal year 2016. The decrease in the effective tax rate from fiscal year 2017 to 2018 was primarily due to the impacts of the Tax Cuts and Jobs Act enacted on December 22, 2017, partially offset with foreign tax

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credits from a one time distribution in fiscal year 2017. Significant impacts of the TaxCuts and Jobs Act include a reduction in the U.S. federal income tax rate from 35% to 24.5%, partially offset with a tax on the deemed repatriation of undistributed foreign earnings, and a remeasurement of our net deferred tax assets. Several provisions of the TaxCuts and Jobs Act are not effective for us until fiscal year 2019, including a further reduction in the U.S. federal income tax rate to 21%, a deduction for foreign derived intangible income, repeal of the deduction for income attributable to domestic production activities, and a tax on global intangible low-taxed income. The decrease in the effective tax rate from fiscal year 2016 to 2017 was primarily due to the impact of foreign income, and foreign tax credits from a one time distribution of prior year foreign earnings, partially offset with a benefit recorded in fiscal year 2016 from the retroactive extension of the United States Federal Credit for Increasing Research Activities.

We record a valuation allowance to reduce our deferred tax assets to the amount we believe is more-likely-than-not to be realized. In making these determinations we consider historical and projected taxable income, and ongoing prudent and feasible tax planning strategies in assessing the appropriateness of a valuation allowance. The net increase in the valuation allowance of \$4.6 million for fiscal year 2018 and \$3.6 million for fiscal year 2017 was primarily related to tax net operating losses incurred in certain foreign jurisdictions, and state tax credit carryforwards. Our net deferred tax assets as of September 30, 2018, 2017 and 2016 were \$33.4 million, \$53.2 million and \$49.4 million, respectively.

Our worldwide effective tax rate may fluctuate based on a number of factors, including variations in projected taxable income in the various geographic locations in which we operate, changes in the valuation of our net deferred tax assets, resolution of potential exposures, tax positions taken on tax returns filed in the various geographic locations in which we operate, and the introduction of new accounting standards or changes in tax laws or interpretations thereof in the various geographic locations in which we operate. We have recorded liabilities to address potential tax exposures related to business and income tax positions we have taken that could be challenged by taxing authorities. The ultimate resolution of these potential exposures may be greater or less than the liabilities recorded which could result in an adjustment to our future tax expense.

Liquidity and Capital Resources

We have funded our operations with our cash balances, cash generated from operations and proceeds from public offerings of our securities.

	Years Ended September 30,		
	2018	2017	2016
	(in thousands)		
Liquidity and Capital Resources			
Cash and cash equivalents and investments	\$ 1,450,596	\$ 1,301,730	\$ 1,158,770
Cash provided by operating activities	761,068	740,281	711,535
Cash (used in) provided by investing activities	(455,987)	(32,285)	62,720
Cash used in financing activities	(551,263)	(546,032)	(652,647)

Cash and cash equivalents, short-term investments and long-term investments totaled \$1,450.6 million as of September 30, 2018, compared to \$1,301.7 million as of September 30, 2017, representing an increase of \$148.9 million. The increase was primarily due to cash provided by operating activities of \$761.1 million, partially offset by \$600.1 million of cash required for the repurchase of outstanding common stock under our share repurchase program in fiscal year 2018 and \$53.5 million of capital expenditures related to the expansion of our facilities to support our operations worldwide. As of September 30, 2018, 37.6% of our cash and cash equivalents and investment balances were outside of the U.S. The cash and cash equivalents and investment balances outside of the U.S. are subject to fluctuation based on the settlement of intercompany balances. In fiscal year 2017, the increase to cash and cash equivalents, short-term investments and long-term investments from the prior year was primarily due to cash provided by operating activities of \$740.3 million, partially offset by \$600.1 million of cash required for the repurchase of outstanding common stock under our share repurchase program in fiscal year 2017 and \$38.7 million of capital expenditures related to the expansion of our facilities to support our operations worldwide. As of September 30, 2017, 37.7% of our cash and cash equivalents and investment balances were outside of the U.S.

Cash provided by operating activities during fiscal year 2018 was \$761.1 million compared to \$740.3 million in fiscal year 2017 and \$711.5 million in fiscal year 2016. Cash provided by operating activities resulted primarily from cash generated from net income, after adjusting for non-cash charges such as stock-based compensation, depreciation and amortization charges and changes in operating assets and liabilities.

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Cash used in investing activities during fiscal year 2018 was \$456.0 million compared to cash used in investing activities of \$32.3 million in fiscal year 2017 and cash provided by investing activities of \$62.7 million in fiscal year 2016. Cash used in investing activities for fiscal year 2018 was primarily the result of the purchase of investments and capital expenditures related to maintaining our operations worldwide, partially offset by the sale and maturity of investments. Cash used in investing activities for fiscal year 2017 was primarily the result of the purchase of investments and capital expenditures related to maintaining our operations worldwide, partially offset by the sale and maturity of investments. Cash provided by investing activities for fiscal year 2016 was primarily the result of the sale and maturity of investments, partially offset by the purchase of investments and capital expenditures related to the expansion of our facilities to support our operations worldwide.

Cash used in financing activities was \$551.3 million for fiscal year 2018, compared to \$546.0 million for fiscal year 2017 and \$652.6 million for fiscal year 2016. Cash used in financing activities for fiscal year 2018 included \$600.1 million to repurchase common stock under our share repurchase program, which was partially offset by cash received from the exercise of employee stock options and stock purchases under our employee stock purchase plan of \$48.8 million. Cash used in financing activities for fiscal year 2017 included \$600.1 million to repurchase common stock under our share repurchase program, which was partially offset by cash received from the exercise of employee stock options and stock purchases under our employee stock purchase plan of \$47.0 million and excess tax benefits related to share-based compensation of \$7.0 million. Cash used in financing activities for fiscal year 2016 included \$700.1 million to repurchase common stock under our share repurchase program, which was partially offset by cash received from the exercise of employee stock options and stock purchases under our employee stock purchase plan of \$44.9 million and excess tax benefits related to share-based compensation of \$2.6 million.

Based on our current operating and capital expenditure forecasts, we believe that our existing cash and investment balances, together with cash generated from operations should be sufficient to meet our operating requirements for the next twelve months. Our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the timing and extent of expansion into new territories, the timing of introductions of new products and enhancements of existing products, and the continuing market acceptance of our products.

Obligations and Commitments

The following table summarizes our contractual payment obligations and commitments as of September 30, 2018:

	Payment Obligations by Year						Total
	2019	2020	2021	2022	2023	Thereafter	
	(in thousands)						
Operating leases	\$ 30,870	\$ 45,418	\$ 42,615	\$ 40,285	\$ 31,238	\$ 271,882	\$ 462,308
Purchase obligations	26,233	—	—	—	—	—	26,233
Total	<u>\$ 57,103</u>	<u>\$ 45,418</u>	<u>\$ 42,615</u>	<u>\$ 40,285</u>	<u>\$ 31,238</u>	<u>\$ 271,882</u>	<u>\$ 488,541</u>

We lease our facilities under operating leases that expire at various dates through 2033.

As of September 30, 2018, we had approximately \$33.3 million of tax liabilities, including interest and penalties, related to uncertain tax positions (See Note 5 to our Consolidated Financial Statements). Because of the high degree of uncertainty regarding the settlement of these liabilities, we are unable to estimate the years in which future cash outflows may occur.

Purchase obligations are comprised of purchase commitments with our contract manufacturers. The agreement with our primary contract manufacturer allows it to procure component inventory on our behalf based on our production forecast. We are obligated to purchase component inventory that the contract manufacturer procures in accordance with the forecast, unless cancellation is given within applicable lead times.

Recently Adopted Accounting Standards

In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory* (ASU 2015-11), which changes the subsequent measurement of inventory from lower of cost or market to lower of cost and net realizable value. We adopted ASU 2015-11 during the first quarter of fiscal 2018. The adoption of ASU 2015-11 did not have a material impact on our consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes* (ASU 2015-17), which requires that all deferred tax assets and liabilities be classified as noncurrent in a classified balance sheet. We adopted ASU 2015-17 during the first quarter of fiscal year 2018 on a retrospective basis, which resulted in reclassification of \$53.0 million of deferred tax assets, net of deferred tax liabilities, from current to non-current as of September 30, 2017.

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In March 2016, the FASB issued ASU 2016-09, *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09), which is intended to simplify several aspects of the accounting for share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows.

We adopted ASU 2016-09 during the first quarter of fiscal year 2018. Excess tax benefits and tax deficiencies from share-based compensation are now recorded to the consolidated income statements rather than to additional paid-in capital within equity on a prospective basis. We recognized \$7.6 million of tax benefits for the fiscal year ended September 30, 2018. We also elected to prospectively apply the change in presentation requirement wherein excess tax benefits of awards are classified as operating activities in the consolidated statements of cash flows. Prior periods have not been reclassified to conform to the fiscal 2018 presentation.

We did not elect an accounting policy change to record forfeitures as they occur and will continue to estimate forfeitures at each period.

In January 2017, the FASB issued ASU 2017-04, *Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment* (ASU 2017-04), which simplifies the goodwill impairment process by eliminating Step 2 from the quantitative goodwill impairment test. Under this update, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. We elected to early adopt ASU 2017-04 for our annual goodwill impairment test that was performed during the second quarter of fiscal 2018. The adoption of this standard did not have a material impact on our consolidated financial statements.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* (ASU 2014-09). ASU 2014-09 and the related amendments outline a new, single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The new model will require revenue recognition to depict the transfer of promised goods or services to customers in an amount that reflects the consideration a company expects to receive in exchange for those goods or services. The standard can be applied either retrospectively to each period presented or as a cumulative-effect adjustment as of the date of adoption. In July 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which delays the effective date of ASU 2014-09 by one year. The updated standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017 with early adoption permitted for annual reporting periods beginning after December 15, 2016.

We currently plan to adopt ASU 2014-09 in the first quarter of fiscal 2019 on a modified retrospective basis. We are finalizing system, data and process changes related to the implementation of this accounting standard. Under the new standard, we expect to defer and amortize incremental costs to obtain a contract, which are primarily commission costs, over the expected customer life rather than expensing them as incurred under current practice. Additionally, under the new standard, we would be required to recognize a portion of term license revenues upfront, at the time of delivery rather than ratably over the related contract period. We do not anticipate that the implementation of this updated standard and related amendments will have a material impact to our consolidated income statements. We are continuing to evaluate the impact that this updated standard and the related amendments will have on our consolidated balance sheets and footnote disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* (ASU 2016-02), which requires lessees to recognize on the balance sheet a right-of-use asset, representing its right to use the underlying asset for the lease term, and a corresponding lease liability for all leases with terms greater than twelve months. Our leases consist of operating leases for our office and lab spaces. The guidance also requires qualitative and quantitative disclosures designed to assess the amount, timing and uncertainty of cash flows arising from leases. Adoption of the new lease standard requires measurement of leases at the beginning of the earliest period presented on a modified retrospective basis. The new standard will be effective for us beginning October 1, 2019. We anticipate our long-term leases for office space will be recognized as lease liabilities and corresponding right-of-use assets, and will accordingly have a material impact on our consolidated balance sheets upon adoption.

In July 2018, the FASB issued ASU 2018-11, *Leases (Topic 842)* (ASU 2018-11), which provides an optional transition method to adopt ASU 2016-02, *Leases (Topic 842)* by allowing lessees to apply the new standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Comparative periods will still be presented under current GAAP (ASC 840), along with the applicable Topic 840 disclosures for those

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comparative periods. The new standard is effective at the same time as adoption of ASU 2016-02, *Leases (Topic 842)*, which we are planning to adopt in the first quarter of fiscal year 2020. We anticipate our long-term leases for office space will be recognized as lease liabilities and corresponding right-of-use assets, and will accordingly have a material impact on our consolidated balance sheets upon adoption.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (ASU 2016-13), which replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. We do not anticipate that the adoption of this standard will have a material impact on our consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* (ASU 2016-15), which clarifies how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. We do not anticipate that the adoption of this standard will have a material impact on our consolidated financial statements.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* (ASU 2016-18), which will require a company's cash flow statement to explain the changes during a reporting period of the totals for cash, cash equivalents, restricted cash, and restricted cash equivalents. Additionally, amounts for restricted cash and restricted cash equivalents are to be included with cash and cash equivalents if the cash flow statement includes a reconciliation of the total cash balances for a reporting period. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. We do not anticipate that the adoption of this standard will have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (ASU 2017-01), which provides a more robust framework to use in determining when a set of assets and activities is considered a business. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted for certain transactions. We will evaluate the impact of adopting this standard prospectively, for any transaction involving the acquisition or disposal of assets or businesses.

In May 2017, the FASB issued ASU 2017-09, *Compensation-Stock Compensation* (ASU 2017-09), which provides clarification on when modification accounting should be used for changes to the terms or conditions of a share-based payment award. This ASU does not change the accounting for modifications but clarifies that modification accounting guidance should only be applied if there is a change to the value, vesting conditions or award classification and would not be required if the changes are considered non-substantive. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. We do not anticipate that the adoption of this standard will have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40)* (ASU 2018-15), which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software, and hosting arrangements that include an internal use software license. The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments in this Update. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. We are currently assessing the impact that this updated standard will have on our consolidated financial statements and footnote disclosures.

Item 7A. Quantitative and Qualitative Disclosure About Market Risk

Interest Rate Risk. Our cash equivalents consist of high-quality securities, as specified in our investment policy guidelines. The policy limits the amount of credit exposure to any one issue or issuer to a maximum of 5% of the total portfolio with the exception of U.S. treasury and agency securities, commercial paper and money market funds, which are exempt from size limitation. The policy requires investments in securities that mature in three years or less, with the average maturity being no greater than one and a half years. These securities are subject to interest rate risk and will decrease in value if interest rates increase. A decrease of one percent in the average interest rate would have resulted in a decrease of approximately \$9.5 million in our interest income for the fiscal year 2018.

	Maturing in			Total	Fair Value
	Three Months or Less	Three Months to One Year	Greater Than One Year		
(in thousands, except for percentages)					
September 30, 2018					
Included in cash and cash equivalents	\$ 54,336	\$ —	\$ —	\$ 54,336	\$ 54,336
Weighted average interest rate	1.1%	—	—	—	—
Included in short-term investments	\$ 146,376	\$ 468,329	\$ —	\$ 614,705	\$ 614,705
Weighted average interest rates	1.4%	1.7%	—	—	—
Included in long-term investments	\$ —	\$ —	\$ 411,184	\$ 411,184	\$ 411,184
Weighted average interest rate	—	—	1.9%	—	—
September 30, 2017					
Included in cash and cash equivalents	\$ 16,909	\$ —	\$ —	\$ 16,909	\$ 16,909
Weighted average interest rate	0.5%	—	—	—	—
Included in short-term investments	\$ 105,713	\$ 237,987	\$ —	\$ 343,700	\$ 343,700
Weighted average interest rates	0.9%	1.1%	—	—	—
Included in long-term investments	\$ —	\$ —	\$ 284,802	\$ 284,802	\$ 284,802
Weighted average interest rate	—	—	1.4%	—	—
September 30, 2016					
Included in cash and cash equivalents	\$ 56,525	\$ —	\$ —	\$ 56,525	\$ 56,525
Weighted average interest rate	0.3%	—	—	—	—
Included in short-term investments	\$ 78,969	\$ 288,855	\$ —	\$ 367,824	\$ 367,824
Weighted average interest rates	0.4%	0.6%	—	—	—
Included in long-term investments	\$ —	\$ —	\$ 276,375	\$ 276,375	\$ 276,375
Weighted average interest rate	—	—	1.0%	—	—

Foreign Currency Risk. The majority of our sales and expenses are denominated in U.S. dollars and as a result, we have not experienced significant foreign currency transaction gains and losses to date. While we have conducted some transactions in foreign currencies during the fiscal year ended September 30, 2018 and expect to continue to do so, we do not anticipate that foreign currency transaction gains or losses will be significant at our current level of operations. However, as we continue to expand our operations internationally, transaction gains or losses may become significant in the future. We have not engaged in foreign currency hedging to date. However, we may do so in the future.

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Item 8. *Financial Statements and Supplementary Data*

F5 NETWORKS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of F5 Networks, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of F5 Networks, Inc. and its subsidiaries as of September 30, 2018 and 2017, and the related consolidated statements of income, of comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended September 30, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of September 30, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financing Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (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 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 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.

/s/ PricewaterhouseCoopers LLP
Seattle, Washington
November 21, 2018

We have served as the Company's auditor since 1996.

F5 NETWORKS, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands)

	September 30,	
	2018	2017
ASSETS		
Current assets		
Cash and cash equivalents	\$ 424,707	\$ 673,228
Short-term investments	614,705	343,700
Accounts receivable, net of allowances of \$2,040 and \$1,815	295,352	291,924
Inventories	30,568	29,834
Other current assets	52,326	67,538
Total current assets	1,417,658	1,406,224
Property and equipment, net	145,042	122,420
Long-term investments	411,184	284,802
Deferred tax assets	33,441	53,303
Goodwill	555,965	555,965
Other assets, net	42,186	53,775
Total assets	\$ 2,605,476	\$ 2,476,489
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 57,757	\$ 50,760
Accrued liabilities	180,979	187,379
Deferred revenue	715,697	696,404
Total current liabilities	954,433	934,543
Other long-term liabilities	65,892	44,589
Deferred revenue, long-term	299,624	267,902
Deferred tax liabilities	35	63
Total long-term liabilities	365,551	312,554
Commitments and contingencies (Note 7)		
Shareholders' equity		
Preferred stock, no par value; 10,000 shares authorized, no shares outstanding	—	—
Common stock, no par value; 200,000 shares authorized, 60,215 and 62,594 shares issued and outstanding	20,427	17,627
Accumulated other comprehensive loss	(22,178)	(17,997)
Retained earnings	1,287,243	1,229,762
Total shareholders' equity	1,285,492	1,229,392
Total liabilities and shareholders' equity	\$ 2,605,476	\$ 2,476,489

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

F5 NETWORKS, INC.
CONSOLIDATED INCOME STATEMENTS
(in thousands, except per share amounts)

	Years Ended September 30,		
	2018	2017	2016
Net revenues			
Products	\$ 960,108	\$ 964,662	\$ 944,469
Services	1,201,299	1,125,379	1,050,565
Total	<u>2,161,407</u>	<u>2,090,041</u>	<u>1,995,034</u>
Cost of net revenues			
Products	181,061	176,032	166,624
Services	180,420	177,453	170,581
Total	<u>361,481</u>	<u>353,485</u>	<u>337,205</u>
Gross profit	<u>1,799,926</u>	<u>1,736,556</u>	<u>1,657,829</u>
Operating expenses			
Sales and marketing	664,135	652,239	628,743
Research and development	366,084	350,365	334,227
General and administrative	160,382	156,887	138,431
Litigation expense	—	391	9,051
Restructuring charges	18,426	12,718	—
Total	<u>1,209,027</u>	<u>1,172,600</u>	<u>1,110,452</u>
Income from operations	590,899	563,956	547,377
Other income, net	12,861	11,561	2,514
Income before income taxes	603,760	575,517	549,891
Provision for income taxes	150,071	154,756	184,036
Net income	<u>\$ 453,689</u>	<u>\$ 420,761</u>	<u>\$ 365,855</u>
Net income per share — basic	<u>\$ 7.41</u>	<u>\$ 6.56</u>	<u>\$ 5.43</u>
Weighted average shares — basic	<u>61,262</u>	<u>64,173</u>	<u>67,433</u>
Net income per share — diluted	<u>\$ 7.32</u>	<u>\$ 6.50</u>	<u>\$ 5.38</u>
Weighted average shares — diluted	<u>62,013</u>	<u>64,775</u>	<u>67,984</u>

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

F5 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

	Years Ended September 30,		
	2018	2017	2016
Net income	\$ 453,689	\$ 420,761	\$ 365,855
Other comprehensive (loss) income:			
Foreign currency translation adjustment	(1,415)	(3,671)	2,067
Available-for-sale securities:			
Unrealized (losses) gains on securities, net of taxes of \$(869), \$(493), and \$14 for the years ended September 30, 2018, 2017, and 2016, respectively	(2,775)	(822)	23
Reclassification adjustment for realized losses (gains) included in net income, net of taxes of \$(4), \$186, and \$(2) for the years ended September 30, 2018, 2017, and 2016, respectively	9	(310)	4
Net change in unrealized (losses) gains on available-for-sale securities, net of tax	(2,766)	(1,132)	27
Total other comprehensive (loss) income	(4,181)	(4,803)	2,094
Comprehensive income	\$ 449,508	\$ 415,958	\$ 367,949

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

F5 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(in thousands)

	Common Stock		Accumulated Other Comprehensive Income/(Loss)	Retained Earnings	Total Shareholders' Equity
	Shares	Amount			
Balance, September 30, 2015	70,138	\$ 10,159	\$ (15,288)	\$ 1,321,857	\$ 1,316,728
Exercise of employee stock options	19	179	—	—	179
Issuance of stock under employee stock purchase plan	492	44,690	—	—	44,690
Issuance of restricted stock	1,275	—	—	—	—
Repurchase of common stock	(6,609)	(197,677)	—	(502,447)	(700,124)
Tax loss from employee stock transactions	—	(920)	—	—	(920)
Stock-based compensation	—	156,760	—	—	156,760
Net income	—	—	—	365,855	365,855
Other comprehensive income	—	—	2,094	—	2,094
Balance, September 30, 2016	65,315	\$ 13,191	\$ (13,194)	\$ 1,185,265	\$ 1,185,262
Exercise of employee stock options	9	201	—	—	201
Issuance of stock under employee stock purchase plan	469	46,838	—	—	46,838
Issuance of restricted stock	1,362	—	—	—	—
Repurchase of common stock	(4,561)	(223,826)	—	(376,264)	(600,090)
Tax benefit from employee stock transactions	—	5,897	—	—	5,897
Stock-based compensation	—	175,326	—	—	175,326
Net income	—	—	—	420,761	420,761
Other comprehensive loss	—	—	(4,803)	—	(4,803)
Balance, September 30, 2017	62,594	\$ 17,627	\$ (17,997)	\$ 1,229,762	\$ 1,229,392
Exercise of employee stock options	1	3	—	—	3
Issuance of stock under employee stock purchase plan	475	48,815	—	—	48,815
Issuance of restricted stock	1,219	—	—	—	—
Repurchase of common stock	(4,074)	(203,873)	—	(396,208)	(600,081)
Stock-based compensation	—	157,855	—	—	157,855
Net income	—	—	—	453,689	453,689
Other comprehensive loss	—	—	(4,181)	—	(4,181)
Balance, September 30, 2018	60,215	\$ 20,427	\$ (22,178)	\$ 1,287,243	\$ 1,285,492

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

F5 NETWORKS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended September 30,		
	2018	2017	2016
Operating activities			
Net income	\$ 453,689	\$ 420,761	\$ 365,855
Adjustments to reconcile net income to net cash provided by operating activities:			
Realized (gain) loss on disposition of assets and investments	(267)	(439)	693
Stock-based compensation	157,855	175,326	156,760
Provisions for doubtful accounts and sales returns	1,461	366	1,526
Depreciation and amortization	59,491	61,148	56,776
Deferred income taxes	20,810	(4,626)	2,967
Changes in operating assets and liabilities:			
Accounts receivable	(4,889)	(24,115)	9,732
Inventories	(734)	4,218	(334)
Other current assets	15,607	(14,890)	(1,876)
Other assets	446	(2,056)	(712)
Accounts payable and accrued liabilities	6,583	30,524	33,217
Deferred revenue	51,016	94,064	86,931
Net cash provided by operating activities	761,068	740,281	711,535
Investing activities			
Purchases of investments	(855,424)	(446,838)	(354,708)
Maturities of investments	439,130	390,449	418,821
Sales of investments	12,736	66,858	66,848
Decrease (increase) in restricted cash	36	(73)	(3)
Acquisition of intangible assets	—	(4,000)	(4,750)
Cash provided by sale of fixed asset	1,000	—	—
Purchases of property and equipment	(53,465)	(38,681)	(63,488)
Net cash (used in) provided by investing activities	(455,987)	(32,285)	62,720
Financing activities			
Excess tax benefit from stock-based compensation	—	7,019	2,608
Proceeds from the exercise of stock options and purchases of stock under employee stock purchase plan	48,818	47,039	44,869
Repurchase of common stock	(600,081)	(600,090)	(700,124)
Net cash used in financing activities	(551,263)	(546,032)	(652,647)
Net (decrease) increase in cash and cash equivalents	(246,182)	161,964	121,608
Effect of exchange rate changes on cash and cash equivalents	(2,339)	(3,307)	2,503
Cash and cash equivalents, beginning of year	673,228	514,571	390,460
Cash and cash equivalents, end of year	\$ 424,707	\$ 673,228	\$ 514,571
Supplemental disclosures of cash flow information			
Cash paid for taxes	\$ 104,878	\$ 162,944	\$ 164,362
Supplemental disclosures of non-cash activities			
Capitalized leasehold improvements paid directly by landlord	\$ 9,958	\$ —	\$ —

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

F5 NETWORKS, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

The Company

F5 Networks, Inc. (the “Company”) is the leading developer and provider of application services. The Company’s core technology is a full-proxy, programmable, highly-scalable software platform called TMOS, which supports a broad array of features and functions designed to ensure that applications delivered over Internet Protocol (IP) networks are secure, fast, and available. The Company’s offerings include software products for local and global traffic management, network and application security, access management, web acceleration and a number of other network and application services. F5 offerings are available via software that can run individually or as part of an integrated solution on the Company’s high-performance, scalable, purpose-built BIG-IP appliances and VIPRION chassis-based hardware, as software-only Virtual Editions, or as software-based services available through a number of leading cloud marketplaces. The Company also offers distributed denial-of-service (DDoS) protection, application security and other application services by subscription on its cloud-based Silverline platform. In connection with its products, the Company offers a broad range of support and managed services including consulting, training, installation and maintenance.

Accounting Principles

The Company’s consolidated financial statements and accompanying notes are prepared on the accrual basis of accounting in accordance with generally accepted accounting principles in the United States of America (GAAP).

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Estimates are used in accounting for revenue recognition, reserves for doubtful accounts, product returns, obsolete and excess inventory and valuation allowances on deferred tax assets. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. The Company invests its cash and cash equivalents in deposits with five major financial institutions, which, at times, exceed federally insured limits. The Company has not experienced any losses on its cash and cash equivalents.

Investments

The Company classifies its investment securities as available-for-sale. Investment securities, consisting of certificates of deposit, corporate and municipal bonds and notes, United States government and agency securities and international government securities are reported at fair value with the related unrealized gains and losses included as a component of accumulated other comprehensive income (loss) in shareholders’ equity. Realized gains and losses and declines in value of securities judged to be other than temporary are included in other income (expense). The cost of investments for purposes of computing realized and unrealized gains and losses is based on the specific identification method. Investments in securities with maturities of less than one year or where management’s intent is to use the investments to fund current operations are classified as short-term investments. Investments with maturities of greater than one year are classified as long-term investments.

Concentration of Credit Risk

The Company extends credit to customers and is therefore subject to credit risk. The Company performs initial and ongoing credit evaluations of its customers' financial condition and does not require collateral. An allowance for doubtful accounts is recorded to account for potential bad debts. Estimates are used in determining the allowance for doubtful accounts and are based upon an assessment of selected accounts and as a percentage of remaining accounts receivable by aging category. In determining these percentages, the Company evaluates historical write-offs, and current trends in customer credit quality, as well as changes in credit policies. At September 30, 2018, Synnex Corporation and Ingram Micro, Inc. accounted for 10.3% and 16.6% of the Company's accounts receivable, respectively. At September 30, 2017, Synnex Corporation and Arrow ECS, Inc. accounted for 13.6% and 11.5% of the Company's accounts receivable, respectively. No other customers accounted for more than 10% of total receivables as of September 30, 2018 and 2017.

The Company maintains its cash and investment balances with high credit quality financial institutions.

Fair Value of Financial Instruments

Short-term and long-term investments are recorded at fair value as the underlying securities are classified as available-for-sale with any unrealized gain or loss being recorded to other comprehensive income. The fair value for securities held is determined using quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency.

Inventories

The Company outsources the manufacturing of its pre-configured hardware platforms to contract manufacturers, who assemble each product to the Company's specifications. As protection against component shortages and to provide replacement parts for its service teams, the Company also stocks limited supplies of certain key product components. The Company reduces inventory to net realizable value based on excess and obsolete inventories determined primarily by historical usage and forecasted demand. Inventories consist of hardware and related component parts and are recorded at the lower of cost and net realizable value (as determined by the first-in, first-out method).

Inventories consist of the following (in thousands):

	September 30,	
	2018	2017
Finished goods	\$ 21,339	\$ 20,280
Raw materials	9,229	9,554
	<u>\$ 30,568</u>	<u>\$ 29,834</u>

Property and Equipment

Property and equipment is stated at net book value. Depreciation of property and equipment are provided using the straight-line method over the estimated useful lives of the assets, ranging from two to five years. Leasehold improvements are amortized over the lesser of the remaining lease term or the estimated useful life of the improvements. The cost of normal maintenance and repairs is charged to expense as incurred and expenditures for major improvements are capitalized at cost. Gains or losses on the disposition of assets are reflected in the income statements at the time of disposal.

Property and equipment consist of the following (in thousands):

	September 30,	
	2018	2017
Computer equipment	\$ 194,847	\$ 177,235
Office furniture and equipment	31,625	32,781
Leasehold improvements	107,615	88,410
	334,087	298,426
Accumulated depreciation and amortization	(189,045)	(176,006)
	<u>\$ 145,042</u>	<u>\$ 122,420</u>

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Depreciation expense totaled approximately \$45.9 million, \$44.6 million, and \$36.4 million for the fiscal years ended September 30, 2018, 2017 and 2016, respectively.

Goodwill

Goodwill represents the excess purchase price over the estimated fair value of net assets acquired as of the acquisition date. The Company tests goodwill for impairment on an annual basis and between annual tests when impairment indicators are identified, and goodwill is written down when impaired. Goodwill was recorded in connection with various acquisitions in prior years. For its annual goodwill impairment test in all periods to date, the Company has operated under one reporting unit and the fair value of its reporting unit has been determined by the Company's enterprise value. The Company performs its annual goodwill impairment test during the second fiscal quarter.

As part of the annual goodwill impairment test, the Company has the option to perform a qualitative assessment to determine whether further impairment testing is necessary. Examples of events and circumstances that might indicate that the reporting unit's fair value is less than its carrying amount include macro-economic conditions such as deterioration in the entity's operating environment or industry or market considerations; entity-specific events such as increasing costs, declining financial performance, or loss of key personnel; or other events such as a sustained decrease in the stock price on either an absolute basis or relative to peers. If, as a result of its qualitative assessment, it is more-likely-than-not (i.e. greater than 50% chance) that the fair value of the Company's reporting unit is less than its carrying amount, the quantitative impairment test will be required. Otherwise, no further testing will be required. If the Company chooses to bypass the qualitative assessment, it completes a quantitative assessment in performing its annual impairment test.

As described in the "Recently Adopted Accounting Standards" section of Note 1, the Company elected to early adopt ASU 2017-04. For its annual impairment test performed in the second quarter of fiscal 2018, the Company completed a quantitative assessment and determined that there was no impairment of goodwill. The Company also considered potential impairment indicators of goodwill at September 30, 2018 and noted no indicators of impairment.

Acquired Technology and Intangible Assets

Acquired technology is recorded at cost and amortized over its estimated useful life. The estimated useful life of these assets is assessed and evaluated for reasonableness periodically.

Acquired in-process research and development (IPR&D) are intangible assets initially recognized at fair value and classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. During the development period, these assets will not be amortized as charges to earnings; instead these assets will be tested for impairment on an annual basis or more frequently if impairment indicators are identified.

Amortization expense related to acquired technology totaled \$7.4 million, \$8.8 million and \$10.6 million during the fiscal years 2018, 2017 and 2016, respectively, and is charged to cost of product revenues.

The Company's intangible assets subject to amortization are amortized using the straight-line method over their estimated useful lives, ranging from three to ten years. The Company evaluates the recoverability of intangible assets periodically by taking into account events or circumstances that may warrant revised estimates of useful lives or that indicate the asset may be impaired. Amortization expense of all other intangible assets, including customer relationships, patents and trademarks was not material during the fiscal years 2018, 2017 and 2016.

Software Development Costs

The authoritative guidance requires certain internal software development costs related to software to be sold to be capitalized upon the establishment of technological feasibility. Thereafter, software development costs incurred after the establishment of technological feasibility and prior to a product being released for sale are capitalized and reported at the lower of unamortized cost or net realizable value. Capitalized software development costs are amortized over the remaining estimated economic life of the product. The establishment of technological feasibility and the ongoing assessment of recoverability of costs require considerable judgment by the Company with respect to certain internal and external factors, including, but not limited to, anticipated future gross product revenues, estimated economic life and changes in hardware and software technology.

The Company's software development costs incurred subsequent to achieving technological feasibility have not been significant, and all software development costs have been expensed as research and development activities as incurred.

Internal Use Software

In accordance with the authoritative guidance, the Company capitalizes costs incurred during the application development stage associated with the development of new functionality for internal-use software and developed software related to the infrastructure of its SaaS-based product offerings. The capitalized costs are then amortized over the estimated useful life of the software, which is generally three to five years, and are included in property and equipment in the accompanying consolidated balance sheets.

Impairment of Long-Lived Assets

The Company assesses the impairment of long-lived assets whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be recoverable. When such events occur, management determines whether there has been impairment by comparing the anticipated undiscounted net future cash flows to the related asset's carrying value. If impairment exists, the asset is written down to its estimated fair value. No impairment of long-lived assets was noted as of and for the years ended September 30, 2018, 2017 and 2016.

Revenue Recognition

The Company sells products through distributors, resellers, and directly to end users. Revenue is recognized provided that all of the following criteria have been met:

- Persuasive evidence of an arrangement exists. Evidence of an arrangement generally consists of a purchase order issued pursuant to the terms and conditions of a distributor, reseller or end user agreement.
- Delivery has occurred. The Company uses shipping or related documents, or written evidence of customer acceptance, when applicable, to verify delivery or completion of any performance terms.
- The sales price is fixed or determinable. The Company assesses whether the sales price is fixed or determinable based on payment terms associated with the transaction and whether the sales price is subject to refund or adjustment.
- Collectability is reasonably assured. The Company assesses collectability primarily based on the creditworthiness of the customer as determined by credit checks and related analysis, as well as the Customer's payment history.

Revenue from the sale of products is generally recognized when the product has been shipped and the customer is obligated to pay for the product. When rights of return are present and the Company cannot estimate returns, revenue is recognized when such rights of return lapse. Payment terms to domestic customers are generally net 30 days to net 45 days. Payment terms to international customers range from net 30 days to net 120 days based on normal and customary trade practices in the individual markets.

Revenues for post-contract customer support (PCS) are recognized on a straight-line basis over the service contract term. PCS includes a limited period of telephone support, updates, repair or replacement of any failed product or component that fails during the term of the agreement, bug fixes and rights to upgrades, when and if available. Consulting services are customarily billed at fixed hourly rates, plus out-of-pocket expenses, and revenues are recognized when the consulting has been completed. Training revenue is recognized when the training has been completed.

Arrangement consideration is first allocated between software (consisting of nonessential and stand-alone software) and non-software deliverables. The majority of the Company's products are hardware appliances which contain software essential to the overall functionality of the products. Hardware appliances are generally sold with PCS and on occasion, with consulting and/or training services. Arrangement consideration in such multiple element transactions is allocated to each element based on a fair value hierarchy, where the selling price for an element is based on vendor specific objective evidence (VSOE), if available, third-party evidence (TPE), if available and VSOE is not available; or the best estimate of selling price (BESP), if neither VSOE or TPE is available.

For software deliverables, the Company allocates revenue between multiple elements based on software revenue recognition guidance. Software revenue recognition guidance requires revenue earned on software arrangements involving multiple elements to be allocated to each element based on the relative fair values of those elements. The fair value of an element must be based on VSOE. Where VSOE of the fair value of delivered elements is not available, revenue is recognized on the "residual method" based on the fair value of undelivered elements. If evidence of fair value of one or more undelivered elements does not exist, all revenue is deferred and recognized at the earlier of the delivery of those elements or the establishment of fair value of the remaining undelivered elements.

The Company establishes VSOE for its products, PCS, consulting and training services based on the sales price charged for each element when sold separately. The sales price is discounted from the applicable list price based on various factors

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including the type of customer, volume of sales, geographic region and program level. The Company's list prices are generally not fair value as discounts may be given based on the factors enumerated above. The Company uses historical sales transactions to determine whether VSOE can be established for each of the elements. In most instances, VSOE of fair value is the sales price of actual standalone (unbundled) transactions within the past 12 month period, when a substantial majority of transactions (more than 80%) are priced within a narrow range, which the Company has determined to be plus or minus 15% of the median sales price.

The Company believes that the VSOE of fair value of training and consulting services is represented by the billable rate per hour, based on the rates charged to customers when they purchase standalone training or consulting services. The price of consulting services is not based on the type of customer, volume of sales, geographic region or program level.

The Company is typically not able to determine VSOE or TPE for non-software products. TPE is determined based on competitor prices for similar elements when sold separately. Generally, the Company's go-to-market strategy differs from that of other competitive products or services in its markets and the Company's offerings contain a significant level of differentiation such that the comparable pricing of products with similar functionality cannot be obtained. Furthermore, the Company is unable to reliably determine the selling prices on a stand-alone basis of similar products offered by its competitors.

When the Company is unable to establish selling price using VSOE or TPE, the Company uses BESP in its allocation of arrangement consideration. The objective of BESP is to determine the price at which the Company would transact a sale if the product or service were sold on a stand-alone basis. The Company has been able to establish BESP through the list price, less a discount deemed appropriate to maintain a reasonable gross margin. Management regularly reviews the gross margin information. Non-software product BESP is determined through the Company's review of historical sales transactions within the past 12 month period. Additional factors considered in determining an appropriate BESP include, but are not limited to, cost of products, pricing practices, geographies, customer classes, and distribution channels.

The Company regularly validates the VSOE of fair value and BESP for elements in its multiple element arrangements. The Company accounts for taxes collected from customers and remitted to governmental authorities on a net basis and excluded these amounts from revenues.

Shipping and Handling

Shipping and handling fees charged to the Company's customers are recognized as product revenue in the period shipped and the related costs for providing these services are recorded as a cost of sale.

Guarantees and Product Warranties

In the normal course of business to facilitate sales of its products, the Company indemnifies other parties, including customers, resellers, lessors, and parties to other transactions with the Company, with respect to certain matters. The Company has agreed to hold the other party harmless against losses arising from a breach of representations or covenants, or out of intellectual property infringement or other claims made against certain parties. These agreements may limit the time within which an indemnification claim can be made and the amount of the claim. The Company has entered into indemnification agreements with its officers and directors, and the Company's bylaws contain similar indemnification obligations to the Company's agents. It is not possible to determine the maximum potential amount under these indemnification agreements due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement.

The Company offers warranties of one year for hardware for those customers without service contracts, with the option of purchasing additional warranty coverage in yearly increments. The Company accrues for warranty costs as part of its cost of sales based on associated material product costs and technical support labor costs. Accrued warranty costs as of September 30, 2018, 2017 and 2016 were not considered material.

Research and Development

Research and development expenses consist of salaries and related benefits of product development personnel, prototype materials and expenses related to the development of new and improved products, and an allocation of facilities and depreciation expense. Research and development expenses are reflected in the income statements as incurred.

Advertising

Advertising costs are expensed as incurred. The Company incurred \$4.6 million, \$3.5 million and \$4.0 million in advertising costs during the fiscal years 2018, 2017 and 2016, respectively.

Income Taxes

Deferred income tax assets and liabilities are determined based upon differences between the financial statement and income tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The realization of deferred tax assets is based on historical tax positions and estimates of future taxable income. A valuation allowance is recorded when it is more-likely-than-not that some of the deferred tax assets will not be realized.

The Company assesses whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. The Company may recognize the tax benefit from an uncertain tax position only if it is more-likely-than-not that the tax position will be sustained on examination by the taxing authorities, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The tax benefits to be recognized in the financial statements from such a position is measured as the largest amount of benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. The Company adjusts these liabilities based on a variety of factors, including the evaluation of information not previously available. These adjustments are reflected as increases or decreases to income tax expense in the period in which new information is available.

Foreign Currency

The functional currency for the Company's foreign subsidiaries is the local currency in which the respective entity is located, with the exception of F5 Networks Singapore Pte Ltd., F5 Networks (UK) Ltd., F5 Networks Benelux B.V. (Netherlands), F5 Networks Japan G.K., F5 Networks Canada Ltd., F5 Networks GmbH (Germany), F5 Networks Australia Pty, Ltd., F5 Networks (Israel) Ltd., Traffix Communication Systems Ltd. (Israel) and Versafe Ltd. (Israel), that use the U.S. dollar as their functional currency. An entity's functional currency is determined by the currency of the economic environment in which the majority of cash is generated and expended by the entity. The financial statements of all majority-owned subsidiaries and related entities, with a functional currency other than the U.S. dollar, have been translated into U.S. dollars. All assets and liabilities of the respective entities are translated at year-end exchange rates and all revenues and expenses are translated at average rates during the respective period. Translation adjustments are reported as other comprehensive income (loss) in the consolidated statements of comprehensive income.

Foreign currency transaction gains and losses are a result of the effect of exchange rate changes on transactions denominated in currencies other than the functional currency, including U.S. dollars. Gains and losses on those foreign currency transactions are included in determining net income or loss for the period of exchange and are recorded in other income, net. The net effect of foreign currency gains and losses was not significant during the fiscal years ended September 30, 2018, 2017 and 2016.

Segments

Management has determined that the Company was organized as, and operated in, one reportable operating segment for fiscal year 2018 and prior years: the development, marketing and sale of application services that optimize the security, performance and availability of network applications, servers and storage systems.

Stock-based Compensation

The Company accounts for stock-based compensation using the straight-line attribution method for recognizing compensation expense. The Company recognized \$157.9 million, \$175.3 million and \$156.8 million of stock-based compensation expense for the fiscal years ended September 30, 2018, 2017 and 2016, respectively. As of September 30, 2018, there was \$109.6 million of total unrecognized stock-based compensation cost, the majority of which will be recognized over the next two years. Going forward, stock-based compensation expenses may increase as the Company issues additional equity-based awards to continue to attract and retain key employees.

The Company issues incentive awards to its employees through stock-based compensation consisting of restricted stock units (RSUs). On October 31, 2018, the Company's Board of Directors and Compensation Committee approved 774,313 RSUs to employees and executive officers pursuant to the Company's annual equity awards program. The value of RSUs is determined using the fair value method, which in this case, is based on the number of shares granted and the quoted price of the Company's common stock on the date of grant. No stock options were granted in fiscal years 2018, 2017 and 2016. In determining the fair value of shares issued under the Employee Stock Purchase Plan (ESPP), the Company uses the Black-Scholes option pricing model that employs the following key assumptions.

	Employee Stock Purchase Plan Years Ended September 30,		
	2018	2017	2016
Risk-free interest rate	2.25%	1.14%	0.44%
Expected dividend	—	—	—
Expected term	0.5 years	0.5 years	0.5 years
Expected volatility	18.14%	22.03%	29.97%

The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant. The Company does not anticipate declaring dividends in the foreseeable future. Expected volatility is based on the annualized daily historical volatility of the Company's stock price commensurate with the expected life of the ESPP option. Expected term of the ESPP option is based on an offering period of six months. The assumptions above are based on management's best estimates at that time, which impact the fair value of the ESPP option calculated under the Black-Scholes methodology and, ultimately, the expense that will be recognized over the life of the ESPP option.

The Company recognizes compensation expense for only the portion of restricted stock units that are expected to vest. Therefore, the Company applies estimated forfeiture rates that are derived from historical employee termination behavior. Based on historical differences with forfeitures of stock-based awards granted to the Company's executive officers and Board of Directors versus grants awarded to all other employees, the Company has developed separate forfeiture expectations for these two groups.

The Company issues incentive awards to certain current executive officers as part of its annual equity awards program. Fifty percent of the aggregate number of RSUs issued to executive officers vest in equal quarterly increments, and 50% are subject to the Company achieving specified performance goals.

For the prior year performance stock grants, attainment is based on the Company achieving specific quarterly revenue and EBITDA targets. In each case, 70% of the quarterly performance stock grant is based on achieving at least 80% of the quarterly revenue goal set by the Company's Board of Directors, and the other 30% is based on achieving at least 80% of the quarterly EBITDA goal set by the Company's Board of Directors. The quarterly performance stock grant is paid linearly over 80% of the targeted goals. At least 100% of both goals must be attained in order for the quarterly performance stock grant to be awarded over 100%. Each goal is evaluated individually and subject to the 80% achievement threshold and the 100% over-achievement threshold. Each goal is also capped at achievement of 200% above target.

For the fiscal 2018 performance stock grants, the Company's Compensation Committee adopted a new set of metrics that are differentiated from the quarterly revenue and EBITDA measures, including (1) 50% of the annual performance stock grant is based on achieving 80% of the annual revenue goal set by the Company's Board of Directors; (2) 25% of the annual performance stock grant is based on achieving at least a 15% increase in annual stand-alone software revenue compared to the prior year; and (3) 25% of the annual performance stock grant is based on relative total shareholder return benchmarked to the S&P 500 index. In each case, no vesting or payment with respect to a performance goal shall occur unless a minimum threshold is met for the applicable goal. Vesting and payment with respect to the performance goal is linear above the threshold of the applicable goal and is capped at achievement of 200% above target.

As of September 30, 2018, the following annual equity grants for executive officers or a portion thereof are outstanding:

Grant Date	RSUs Granted	Vesting Schedule	Vesting Period	Date Fully Vested
November 1, 2017	140,135	Quarterly	4 years	November 1, 2021
November 1, 2016	115,347	Quarterly	4 years	November 1, 2020
November 2, 2015	145,508	Quarterly	4 years	November 1, 2019
November 1, 2014	171,575	Quarterly	4 years	November 1, 2018

The Company recognizes compensation costs for awards with performance conditions when it concludes it is probable that the performance condition will be achieved. The Company reassesses the probability of vesting at each balance sheet date and adjusts compensation costs based on the probability assessment.

Common Stock Repurchase

On October 25, 2017, the Company announced that its Board of Directors authorized an additional \$1.0 billion for its common stock share repurchase program. This new authorization is incremental to the existing \$3.4 billion program, initially approved in October 2010 and expanded in each fiscal year. Acquisitions for the share repurchase programs will be made from time to time in private transactions or open market purchases as permitted by securities laws and other legal requirements. The programs can be terminated at any time. During fiscal year 2018, the Company repurchased and retired 4,074,170 shares at an average price of \$147.29 per share and as of September 30, 2018, the Company had \$573.6 million remaining authorized to purchase shares.

Earnings Per Share

Basic net income per share is computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted net income per share is computed by dividing net income by the weighted average number of common and dilutive common stock equivalent shares outstanding during the period. The Company's nonvested restricted stock units do not have nonforfeitable rights to dividends or dividend equivalents and are not considered participating securities that should be included in the computation of earnings per share under the two-class method.

The following table sets forth the computation of basic and diluted net income per share (in thousands, except per share data):

	Years Ended September 30,		
	2018	2017	2016
Numerator			
Net income	\$ 453,689	\$ 420,761	\$ 365,855
Denominator			
Weighted average shares outstanding — basic	61,262	64,173	67,433
Dilutive effect of common shares from stock options and restricted stock units	751	602	551
Weighted average shares outstanding — diluted	62,013	64,775	67,984
Basic net income per share	\$ 7.41	\$ 6.56	\$ 5.43
Diluted net income per share	\$ 7.32	\$ 6.50	\$ 5.38

For the years ended September 30, 2018, 2017 and 2016, there were no common shares potentially issuable from stock options excluded from the calculation of diluted earnings per share because the exercise price was greater than the average market price of common stock.

Comprehensive Income

Comprehensive income includes certain changes in equity that are excluded from net income. Specifically, unrealized gains or losses on securities and foreign currency translation adjustments. These changes are included in accumulated other comprehensive income or loss.

Recently Adopted Accounting Standards

In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory* (ASU 2015-11), which changes the subsequent measurement of inventory from lower of cost or market to lower of cost and net realizable value. The Company adopted ASU 2015-11 during the first quarter of fiscal 2018. The adoption of ASU 2015-11 did not have a material impact on the Company's consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes* (ASU 2015-17), which requires that all deferred tax assets and liabilities be classified as noncurrent in a classified balance sheet. The Company adopted ASU 2015-17 during the first quarter of fiscal year 2018 on a retrospective basis, which resulted in reclassification of \$53.0 million of deferred tax assets, net of deferred tax liabilities, from current to non-current as of September 30, 2017.

In March 2016, the FASB issued ASU 2016-09, *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09), which is intended to simplify several aspects of the accounting for share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows.

The Company adopted ASU 2016-09 during the first quarter of fiscal year 2018. Excess tax benefits and tax deficiencies from share-based compensation are now recorded to the consolidated income statements rather than to additional paid-in capital within equity on a prospective basis. The Company recognized \$7.6 million of tax benefits for the fiscal year ended September 30, 2018. The Company also elected to prospectively apply the change in presentation requirement wherein excess tax benefits of awards are classified as operating activities in the consolidated statements of cash flows. Prior periods have not been reclassified to conform to the fiscal 2018 presentation.

The Company did not elect an accounting policy change to record forfeitures as they occur and will continue to estimate forfeitures at each period.

In January 2017, the FASB issued ASU 2017-04, *Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment* (ASU 2017-04), which simplifies the goodwill impairment process by eliminating Step 2 from the quantitative goodwill impairment test. Under this update, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company elected to early adopt ASU 2017-04 for its annual goodwill impairment test that was performed during the second quarter of fiscal 2018. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* (ASU 2014-09). ASU 2014-09 and the related amendments outline a new, single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The new model will require revenue recognition to depict the transfer of promised goods or services to customers in an amount that reflects the consideration a company expects to receive in exchange for those goods or services. The standard can be applied either retrospectively to each period presented or as a cumulative-effect adjustment as of the date of adoption. In July 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which delays the effective date of ASU 2014-09 by one year. The updated standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017 with early adoption permitted for annual reporting periods beginning after December 15, 2016.

The Company currently plans to adopt ASU 2014-09 in the first quarter of fiscal 2019 on a modified retrospective basis. The Company is finalizing system, data and process changes related to the implementation of this accounting standard. Under the new standard, the Company expects to defer and amortize incremental costs to obtain a contract, which are primarily commission costs, over the expected customer life rather than expensing them as incurred under current practice. Additionally, under the new standard, the Company would be required to recognize a portion of term license revenues upfront, at the time of delivery rather than ratably over the related contract period. The Company does not anticipate that the implementation of this updated standard and related amendments will have a material impact on its consolidated income statements. The Company is continuing to evaluate the impact that this updated standard and the related amendments will have on its consolidated balance sheets and footnote disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* (ASU 2016-02), which requires lessees to recognize on the balance sheet a right-of-use asset, representing its right to use the underlying asset for the lease term, and a corresponding lease liability for all leases with terms greater than twelve months. The Company's leases consist of operating leases for its office and lab spaces. The guidance also requires qualitative and quantitative disclosures designed to assess the amount, timing and uncertainty of cash flows arising from leases. Adoption of the new lease standard requires measurement of leases at the beginning of the earliest period presented on a modified retrospective basis. The new standard will be effective for the Company beginning October 1, 2019. The Company anticipates that its long-term leases for office space will be recognized as lease liabilities and corresponding right-of-use assets, and will accordingly have a material impact on its consolidated balance sheets upon adoption.

In July 2018, the FASB issued ASU 2018-11, *Leases (Topic 842)* (ASU 2018-11), which provides an optional transition method to adopt ASU 2016-02, *Leases (Topic 842)* by allowing lessees to apply the new standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Comparative periods will still be presented under current GAAP (ASC 840), along with the applicable Topic 840 disclosures for those comparative periods. The new standard is effective at the same time as adoption of ASU 2016-02, *Leases (Topic 842)*, which the Company is planning to adopt in the first quarter of fiscal year 2020. The Company anticipates that its long-term leases for

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office space will be recognized as lease liabilities and corresponding right-of-use assets, and will accordingly have a material impact on its consolidated balance sheets upon adoption.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (ASU 2016-13), which replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. The Company does not anticipate that the adoption of this standard will have a material impact on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* (ASU 2016-15), which clarifies how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. The Company does not anticipate that the adoption of this standard will have a material impact on its consolidated financial statements.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash* (ASU 2016-18), which will require a company's cash flow statement to explain the changes during a reporting period of the totals for cash, cash equivalents, restricted cash, and restricted cash equivalents. Additionally, amounts for restricted cash and restricted cash equivalents are to be included with cash and cash equivalents if the cash flow statement includes a reconciliation of the total cash balances for a reporting period. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. The Company does not anticipate that the adoption of this standard will have a material impact on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (ASU 2017-01), which provides a more robust framework to use in determining when a set of assets and activities is considered a business. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted for certain transactions. The Company will evaluate the impact of adopting this standard prospectively, for any transaction involving the acquisition or disposal of assets or businesses.

In May 2017, the FASB issued ASU 2017-09, *Compensation-Stock Compensation* (ASU 2017-09), which provides clarification on when modification accounting should be used for changes to the terms or conditions of a share-based payment award. This ASU does not change the accounting for modifications but clarifies that modification accounting guidance should only be applied if there is a change to the value, vesting conditions or award classification and would not be required if the changes are considered non-substantive. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted. The Company does not anticipate that the adoption of this standard will have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40)* (ASU 2018-15), which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software, and hosting arrangements that include an internal use software license. The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments in this Update. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. The Company is currently assessing the impact that this updated standard will have on its consolidated financial statements and footnote disclosures.

2. Fair Value Measurements

In accordance with the authoritative guidance on fair value measurements and disclosure under GAAP, the Company determines fair value using a fair value hierarchy that distinguishes between market participant assumptions developed based on market data obtained from sources independent of the reporting entity, and the reporting entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances and expands disclosure about fair value measurements.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date, essentially the exit price.

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The levels of fair value hierarchy are:

Level 1: Quoted prices in active markets for identical assets and liabilities at the measurement date that the Company has the ability to access.

Level 2: Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3: Unobservable inputs for which there is little or no market data available. These inputs reflect management's assumptions of what market participants would use in pricing the asset or liability.

Level 1 investments are valued based on quoted market prices in active markets and include the Company's cash equivalent investments. Level 2 investments, which include investments that are valued based on quoted prices in markets that are not active, broker or dealer quotations, actual trade data, benchmark yields or alternative pricing sources with reasonable levels of price transparency, include the Company's certificates of deposit, corporate bonds and notes, municipal bonds and notes, U.S. government securities, U.S. government agency securities and international government securities. Fair values for the Company's level 2 investments are based on similar assets without applying significant judgments. In addition, all of the Company's level 2 investments have a sufficient level of trading volume to demonstrate that the fair values used are appropriate for these investments.

A financial instrument's level within the fair value hierarchy is based upon the lowest level of any input that is significant to the fair value measurement. However, the determination of what constitutes "observable" requires significant judgment by the Company. The Company considers observable data to be market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant market.

The Company's financial assets measured at fair value on a recurring basis subject to the disclosure requirements at September 30, 2018, were as follows (in thousands):

	Fair Value Measurements at Reporting Date Using			Fair Value at September 30, 2018
	Quoted Prices in Active Markets for Identical Securities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Cash equivalents	\$ 41,468	\$ 13,118	\$ —	\$ 54,586
Short-term investments				
Available-for-sale securities — certificates of deposit	—	2,970	—	2,970
Available-for-sale securities — corporate bonds and notes	—	393,750	—	393,750
Available-for-sale securities — municipal bonds and notes	—	22,524	—	22,524
Available-for-sale securities — U.S. government securities	—	120,078	—	120,078
Available-for-sale securities — U.S. government agency securities	—	75,383	—	75,383
Long-term investments				
Available-for-sale securities — corporate bonds and notes	—	367,710	—	367,710
Available-for-sale securities — municipal bonds and notes	—	24,286	—	24,286
Available-for-sale securities — U.S. government securities	—	12,771	—	12,771
Available-for-sale securities — U.S. government agency securities	—	6,417	—	6,417
Total	\$ 41,468	\$ 1,039,007	\$ —	\$ 1,080,475

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The Company's financial assets measured at fair value on a recurring basis subject to the disclosure requirements at September 30, 2017, were as follows (in thousands):

	Fair Value Measurements at Reporting Date Using			Fair Value at September 30, 2017
	Quoted Prices in Active Markets for Identical Securities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Cash equivalents	\$ 13,967	\$ 3,192	\$ —	\$ 17,159
Short-term investments				
Available-for-sale securities — corporate bonds and notes	—	172,493	—	172,493
Available-for-sale securities — municipal bonds and notes	—	67,409	—	67,409
Available-for-sale securities — U.S. government securities	—	72,930	—	72,930
Available-for-sale securities — U.S. government agency securities	—	30,868	—	30,868
Long-term investments				
Available-for-sale securities — corporate bonds and notes	—	191,782	—	191,782
Available-for-sale securities — municipal bonds and notes	—	26,643	—	26,643
Available-for-sale securities — U.S. government securities	—	29,374	—	29,374
Available-for-sale securities — U.S. government agency securities	—	37,003	—	37,003
Total	\$ 13,967	\$ 631,694	\$ —	\$ 645,661

The Company uses the fair value hierarchy for financial assets and liabilities. The Company's non-financial assets and liabilities, which include goodwill, intangible assets, and long-lived assets, are not required to be carried at fair value on a recurring basis. These non-financial assets and liabilities are measured at fair value on a non-recurring basis when there is an indicator of impairment, and they are recorded at fair value only when impairment is recognized. The Company reviews goodwill and intangible assets for impairment annually, during the second quarter of each fiscal year, or as circumstances indicate the possibility of impairment. The Company monitors the carrying value of long-lived assets for impairment whenever events or changes in circumstances indicate its carrying amount may not be recoverable. During the year ended September 30, 2018, the Company did not recognize any impairment charges related to goodwill, intangible assets, or long-lived assets.

The carrying amounts of other current financial assets and other current financial liabilities approximate fair value due to their short-term nature.

3. Short-Term and Long-Term Investments

Short-term investments consist of the following (in thousands):

September 30, 2018	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	\$ 2,970	\$ —	\$ —	\$ 2,970
Corporate bonds and notes	394,684	9	(943)	393,750
Municipal bonds and notes	22,588	1	(65)	22,524
U.S. government securities	120,283	—	(205)	120,078
U.S. government agency securities	75,587	—	(204)	75,383
	\$ 616,112	\$ 10	\$ (1,417)	\$ 614,705

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September 30, 2017	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and notes	\$ 172,560	\$ 25	\$ (92)	\$ 172,493
Municipal bonds and notes	67,382	36	(9)	67,409
U.S. government securities	72,991	—	(61)	72,930
U.S. government agency securities	30,954	—	(86)	30,868
	<u>\$ 343,887</u>	<u>\$ 61</u>	<u>\$ (248)</u>	<u>\$ 343,700</u>

Long-term investments consist of the following (in thousands):

September 30, 2018	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and notes	\$ 370,377	\$ 25	\$ (2,692)	\$ 367,710
Municipal bonds and notes	24,468	—	(182)	24,286
U.S. government securities	12,956	—	(185)	12,771
U.S. government agency securities	6,500	—	(83)	6,417
	<u>\$ 414,301</u>	<u>\$ 25</u>	<u>\$ (3,142)</u>	<u>\$ 411,184</u>

September 30, 2017	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds and notes	\$ 192,278	\$ 25	\$ (521)	\$ 191,782
Municipal bonds and notes	26,639	46	(42)	26,643
U.S. government securities	29,427	—	(53)	29,374
U.S. government agency securities	37,164	—	(161)	37,003
	<u>\$ 285,508</u>	<u>\$ 71</u>	<u>\$ (777)</u>	<u>\$ 284,802</u>

The following table summarizes investments that have been in a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for more than 12 months as of September 30, 2018 (in thousands):

September 30, 2018	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Corporate bonds and notes	\$ 543,729	\$ (1,800)	\$ 152,097	\$ (1,835)	\$ 695,826	\$ (3,635)
Municipal bonds and notes	26,846	(123)	14,363	(124)	41,209	(247)
U.S. government securities	103,470	(281)	29,379	(109)	132,849	(390)
U.S. government agency securities	44,812	(110)	36,987	(177)	81,799	(287)
Total	<u>\$ 718,857</u>	<u>\$ (2,314)</u>	<u>\$ 232,826</u>	<u>\$ (2,245)</u>	<u>\$ 951,683</u>	<u>\$ (4,559)</u>

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The following table summarizes investments that have been in a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for more than 12 months as of September 30, 2017 (in thousands):

September 30, 2017	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Corporate bonds and notes	\$ 262,852	\$ (528)	\$ 35,401	\$ (85)	\$ 298,253	\$ (613)
Municipal bonds and notes	30,256	(49)	881	(2)	31,137	(51)
U.S. government securities	94,312	(105)	7,992	(9)	102,304	(114)
U.S. government agency securities	36,121	(83)	31,750	(164)	67,871	(247)
Total	\$ 423,541	\$ (765)	\$ 76,024	\$ (260)	\$ 499,565	\$ (1,025)

The Company invests in securities that are rated investment grade or better. The unrealized losses on investments for fiscal year 2018 were primarily caused by interest rate increases.

The Company reviews the individual securities in its portfolio to determine whether a decline in a security's fair value below the amortized cost basis is other-than-temporary. The Company determined that as of September 30, 2018, there were no investments in its portfolio that were other-than-temporarily impaired.

4. Balance Sheet Details

Goodwill

There was no change in the carrying amount of goodwill during fiscal years 2018 and 2017.

Other Assets

Other assets consist of the following (in thousands):

	September 30,	
	2018	2017
Acquired and developed technology and software development costs	\$ 17,641	\$ 25,085
Intangible assets	13,618	17,469
Restricted cash and deposits	10,927	11,221
	\$ 42,186	\$ 53,775

Amortization expense related to other assets was approximately \$11.1 million, \$12.3 million, and \$13.9 million for the fiscal years ended September 30, 2018, 2017 and 2016, respectively.

Intangible assets are included in other assets on the balance sheet and consist of the following (in thousands):

	2018			2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired and developed technology and software development costs	\$ 63,672	\$ (46,031)	\$ 17,641	\$ 69,307	\$ (44,222)	\$ 25,085
Customer relationships	8,242	(4,376)	3,866	8,242	(3,552)	4,690
Patents and trademarks	18,971	(9,219)	9,752	19,756	(7,159)	12,597
Trade names	973	(973)	—	973	(791)	182
Non-compete covenants	1,960	(1,960)	—	2,532	(2,532)	—
	\$ 93,818	\$ (62,559)	\$ 31,259	\$ 100,810	\$ (58,256)	\$ 42,554

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Estimated amortization expense for intangible assets for the five succeeding fiscal years is as follows (in thousands):

2019	\$ 6,858
2020	6,363
2021	6,232
2022	5,026
2023	4,229
	\$ 28,708

Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	September 30,	
	2018	2017
Payroll and benefits	\$ 104,815	\$ 109,088
Sales and marketing	2,743	6,654
Restructuring	8,268	7,741
Income tax accruals	17,795	15,519
Other tax accruals	9,861	13,429
Other	37,497	34,948
	\$ 180,979	\$ 187,379

5. Income Taxes

The United States and international components of income before income taxes are as follows (in thousands):

	Years Ended September 30,		
	2018	2017	2016
United States	\$ 441,336	\$ 452,869	\$ 465,738
International	162,424	122,648	84,153
	\$ 603,760	\$ 575,517	\$ 549,891

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

	Years Ended September 30,		
	2018	2017	2016
Current			
U.S. federal	\$ 78,454	\$ 113,105	\$ 129,728
State	9,800	10,381	16,821
Foreign	41,040	34,679	31,015
Total	129,294	158,165	177,564
Deferred			
U.S. federal	21,259	964	9,770
State	725	99	(1,029)
Foreign	(1,207)	(4,472)	(2,269)
Total	20,777	(3,409)	6,472
	\$ 150,071	\$ 154,756	\$ 184,036

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The effective tax rate differs from the U.S. federal statutory rate as follows (in thousands):

	Years Ended September 30,		
	2018	2017	2016
Income tax provision at statutory rate	\$ 147,921	\$ 201,431	\$ 192,462
State taxes, net of federal benefit	9,349	9,235	13,434
Foreign operations	(6,696)	(40,606)	(9,199)
Research and development and other credits	(13,159)	(12,795)	(18,368)
Domestic manufacturing deduction	(9,722)	(15,802)	(14,624)
Stock-based and other compensation	(150)	12,688	17,137
Impacts of the Tax Cuts and Jobs Act	21,015	—	—
Other	1,513	605	3,194
	<u>\$ 150,071</u>	<u>\$ 154,756</u>	<u>\$ 184,036</u>

The provision for income taxes for fiscal year 2018 includes various impacts from the Tax Cuts and Jobs Act enacted on December 22, 2017. Significant impacts include a reduction of the U.S. federal income tax rate from 35% to 24.5%, partially offset with a \$7.0 million provisional tax expense for the deemed repatriation of undistributed foreign earnings, and a \$14.0 million expense from the remeasurement of the Company's net deferred tax assets to reflect the change in the U.S. federal income tax rate when temporary differences are expected to reverse. Several provisions of the Tax Cuts and Jobs Act are not effective for the Company until fiscal year 2019, including a further reduction in the U.S. federal income tax rate to 21%, a deduction for foreign derived intangible income, repeal of the deduction for income attributable to domestic production activities, and a tax on global intangible low-taxed income (GILTI). The Company has made an accounting policy election to treat taxes under the GILTI provision as a current period expense.

During the year ended September 30, 2017, the Company recorded a \$21.0 million reduction to tax expense related to the utilization of U.S. foreign tax credits. This non-recurring reduction to tax expense is presented as part of foreign operations in the Company's effective tax rate reconciliation. Effective January 1, 2018, the new U.S. tax law provides a deduction for the foreign-source portion of dividends received from specified foreign corporations. As of September 30, 2018, the Company does not maintain an indefinite reinvestment assertion on any unremitted foreign earnings and has recorded a deferred tax liability for any estimated foreign, federal, or state tax liabilities associated with a future repatriation of foreign earnings.

In accordance with SEC Staff Accounting Bulletin ("SAB") No. 118, the Company recorded a provisional tax expense of \$7.0 million related to the deemed repatriation of undistributed foreign earnings in the period ended December 31, 2017. The Company did not record any adjustments to the provisional tax expense in the period ended September 30, 2018. Additional regulatory guidance may result in a change to the provisional amount. SAB No. 118 provides a one-year measurement period to complete the accounting.

The Company benefits from a tax incentive arrangement in a foreign jurisdiction, which is effective through March 31, 2021. The tax incentive agreement is conditional upon meeting certain employment and investment thresholds. This arrangement decreased foreign taxes by \$6.4 million and \$6.9 million, and increased diluted earnings per common share by \$0.10 and \$0.11 for the years ended September 30, 2018 and 2017, respectively.

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

	Years Ended September 30,	
	2018	2017
Deferred tax assets		
Net operating loss carry-forwards	\$ 11,540	\$ 11,235
Allowance for doubtful accounts	368	1,236
Accrued compensation and benefits	8,202	11,617
Inventories and related reserves	324	715
Stock-based compensation	5,570	11,857
Deferred revenue	29,290	43,371
Other accruals and reserves	14,409	17,924
Tax credit carryforwards	12,177	7,873
Depreciation	671	628
	82,551	106,456
Valuation allowance	(22,780)	(18,189)
	59,771	88,267
Deferred tax liabilities		
Purchased intangibles and other	(10,678)	(17,459)
Depreciation	(12,277)	(16,893)
Other accruals and reserves	(3,410)	(676)
	(26,365)	(35,028)
Net deferred tax assets	\$ 33,406	\$ 53,239

At September 30, 2018, the Company had foreign net operating loss carry-forwards of approximately \$58.4 million that can be carried forward indefinitely and \$4.1 million that will expire in fiscal years 2026 to 2028. In addition, there are \$8.2 million of state tax credit carryforwards that can be carried forward indefinitely and \$3.6 million that will expire in fiscal years 2028 to 2033. Management believes that it is more-likely-than-not that the benefit from certain foreign net operating loss carryforwards and state tax carryforwards will not be realized. In recognition of this risk, the Company has provided a valuation allowance on the deferred tax assets relating to these carryforwards. The net change in the total valuation allowance was an increase of \$4.6 million and \$3.9 million for the years ended September 30, 2018 and 2017, respectively.

The Company recognizes the financial statement impact of a tax position only after determining that the relevant tax authority would more-likely-than-not sustain the position following an audit. For tax positions meeting the more-likely-than-not threshold, the amount recognized in the financial statements is the largest impact that has a greater than fifty percent likelihood of being realized upon ultimate settlement with the relevant tax authority.

The following table provides a reconciliation of the beginning and ending amount of unrecognized tax benefits in fiscal years 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Balance, beginning of period	\$ 23,135	\$ 13,687	\$ 9,562
Gross increases related to prior period tax positions	2,715	2,769	1,622
Gross decreases related to prior period tax positions	—	—	(7)
Gross increases related to current period tax positions	8,230	8,507	4,441
Decreases relating to settlements with tax authorities	—	(240)	(521)
Reductions due to lapses of statute of limitations	(2,408)	(1,588)	(1,410)
Balance, end of period	\$ 31,672	\$ 23,135	\$ 13,687

The total amount of gross unrecognized tax benefits was \$31.7 million, \$23.1 million, and \$13.7 million as of September 30, 2018, 2017, and 2016, respectively, of which, \$23.1 million, \$18.3 million, and \$11.1 million, if recognized, would affect the effective tax rate. There is a reasonable possibility that the Company's unrecognized tax benefits will change

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within twelve months due to audit settlements or the expiration of statute of limitations, but the Company does not expect the change to be material to the consolidated financial statements.

The Company recognizes interest and, if applicable, penalties (not included in the “unrecognized tax benefits” table above) for any uncertain tax positions. Interest and penalties are recorded as a component of income tax expense. In the years ended September 30, 2018, 2017 and 2016, the Company recorded approximately \$437,000, \$258,000 and \$18,000, respectively, of interest and penalty expense related to uncertain tax positions. As of September 30, 2018 and 2017, the Company had a cumulative balance of accrued interest and penalties on unrecognized tax positions of \$1,615,000 and \$1,178,000, respectively.

The Company and its subsidiaries are subject to U.S. federal income tax as well as the income tax of multiple state and foreign jurisdictions. The Company has concluded all U.S. federal income tax matters for fiscal years through September 30, 2014. The Company is currently under audit by the IRS for fiscal year 2016 and various states for fiscal years 2014 through 2017. Major jurisdictions where there are wholly owned subsidiaries of F5 Networks, Inc. which require income tax filings include the United Kingdom, Japan, Singapore, and Australia. The earliest periods open for review by local taxing authorities are fiscal years 2017 for the United Kingdom, 2012 for Japan, 2013 for Singapore, and 2014 for Australia. Within the next four fiscal quarters, the statute of limitations will begin to close on the fiscal year 2015 federal income tax return, fiscal years 2014 and 2015 state income tax returns, and fiscal years 2012 to 2017 foreign income tax returns.

6. Stock-based Compensation

The majority of awards consist of restricted stock units and to a lesser degree, stock options. Employees vest in restricted stock units and stock options ratably over the corresponding service term, generally one to four years. The Company’s stock options expire ten years from the date of grant. Restricted stock units are payable in shares of the Company’s common stock as the periodic vesting requirements are satisfied. The value of a restricted stock unit is based upon the fair market value of the Company’s common stock on the date of grant. The value of restricted stock units is determined using the intrinsic value method and is based on the number of shares granted and the quoted price of the Company’s common stock on the date of grant. Alternatively, the Company used the Black-Scholes option pricing model to determine the fair value of its stock options. Compensation expense related to restricted stock units and stock options is recognized over the vesting period. The Company has adopted a number of stock-based compensation plans as discussed below.

2011 Employee Stock Purchase Plan. In April 2012, the Board of Directors amended and restated the Company’s 1999 Employee Stock Purchase Plan, or the Employee Stock Purchase Plan. A total of 8,000,000 shares of common stock have been reserved for issuance under the Employee Stock Purchase Plan. The Employee Stock Purchase Plan permits eligible employees to acquire shares of the Company’s common stock through periodic payroll deductions of up to 15% of base compensation. No employee may purchase more than 10,000 shares during an offering period. In addition, no employee may purchase more than \$25,000 worth of stock, determined by the fair market value of the shares at the time such option is granted, in one calendar year. The Employee Stock Purchase Plan has been implemented in a series of offering periods, each 6 months in duration. The price at which the common stock may be purchased is 85% of the lesser of the fair market value of the Company’s common stock on the first day of the applicable offering period or on the last day of the respective purchase period. As of September 30, 2018 there were 652,351 shares available for awards under the Employee Stock Purchase Plan.

Acquisition Related Incentive Plans. In connection with the Company’s acquisition of Traffix Systems in the second quarter of fiscal year 2012, the Company assumed the Traffix 2007 Israeli Employee Share Option Plan, or the Traffix Plan. Unvested options to acquire Traffix’s common stock were converted into options to acquire the Company’s common stock in connection with the acquisition. A total of 106,829 shares of common stock were reserved for issuance under the Traffix Plan. The plan provided for grants of stock options to persons who were employees, officers, directors, consultants or advisors to Traffix on or prior to February 21, 2012. During the fiscal year 2018, the Company issued no stock options or restricted stock units under the Traffix Plan. As of September 30, 2018, there were options to purchase 49 shares outstanding and no shares available for additional awards under the Traffix Plan. The Company terminated the Traffix Plan effective January 3, 2014 and no additional shares may be issued from the Traffix Plan.

In connection with the Company’s acquisition of Defense.Net, Inc. in the third quarter of fiscal year 2014, the Company assumed the Defense.Net, Inc. 2012 Stock Option and Grant Plan, or the Defense.Net Plan. Unvested options to acquire Defense.Net’s common stock were converted into options to acquire the Company’s common stock in connection with the acquisition. A total of 84,375 shares of common stock were reserved for issuance under the Defense.Net Plan. The plan provided for grants of stock options to persons who were employees, officers, directors, consultants or advisors to Defense.Net, Inc. on or prior to May 22, 2014. During the fiscal year 2018, the Company issued no stock options or restricted stock units under the Defense.Net Plan. As of September 30, 2018, there were options to purchase 113 shares outstanding and no shares

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available for additional awards under the Defense.Net Plan. The Company terminated the Defense.Net Plan effective January 5, 2015 and no additional shares may be issued from the Defense.Net Plan.

2014 Incentive Plan. In March 2014, the Company adopted the 2014 Incentive Plan, or the 2014 Plan, which amended and restated the 2005 Equity Incentive Plan. The 2014 Plan provides for discretionary grants of non-statutory stock options and stock units for employees, including officers, and other service providers. A total of 18,730,000 shares of common stock have been reserved for issuance under the 2014 Plan. Upon certain changes in control of the Company, all outstanding and unvested options or stock awards under the 2014 Plan will vest at the rate of 50%, unless assumed or substituted by the acquiring entity. During the fiscal year 2018, the Company issued no stock options, 62,396 performance stock units and 1,307,589 restricted stock units under the 2014 Plan. As of September 30, 2018, there were no options outstanding, 24,079 performance stock units outstanding, 1,150,870 restricted stock units outstanding and 2,051,687 shares available for new awards under the 2014 Plan.

A majority of the restricted stock units the Company grants to its employees vest quarterly over a two-year period. The performance stock units and restricted stock units under all plans were granted during fiscal years 2018, 2017 and 2016 with a per-share weighted average fair value of \$126.86, \$134.35 and \$109.65, respectively. The fair value of performance stock units and restricted stock units vested during fiscal years 2018, 2017 and 2016 was \$182.6 million, \$176.8 million and \$137.7 million, respectively.

A summary of restricted stock unit activity under the 2014 Plan is as follows:

	Performance Stock Units		Restricted Stock Units	
	Outstanding Performance Stock Units	Weighted Average Grant Date Fair Value	Outstanding Restricted Stock Units	Weighted Average Grant Date Fair Value
Balance, September 30, 2017	13,871	\$ 121.44	1,347,431	\$ 127.89
Units granted	62,396	118.97	1,307,589	127.24
Units vested	(24,374)	145.23	(1,191,577)	150.75
Units cancelled	(27,814)	119.15	(312,573)	125.46
Balance, September 30, 2018	24,079	\$ 119.01	1,150,870	\$ 129.35

A summary of stock option activity under all of the Company's plans is as follows:

	Options Outstanding	
	Number of Shares	Weighted Average Exercise Price per Share
Balance, September 30, 2017	976	\$ 3.18
Options granted	—	—
Options exercised	(814)	3.07
Options cancelled	—	—
Balance, September 30, 2018	162	\$ 3.76

No stock options were granted in fiscal years 2018, 2017 and 2016.

The total intrinsic value of options exercised during fiscal 2018, 2017 and 2016 was \$0.1 million, \$1.0 million and \$1.9 million, respectively.

	Number of Shares	Weighted Average Remaining Contractual Life (in Years)	Weighted Average Exercise Price per Share	Aggregate Intrinsic Value(1)
				(In thousands)
Stock options outstanding	162	4.73	\$ 3.76	\$ 32
Exercisable	162	4.73	\$ 3.76	\$ 32
Vested and expected to vest	162	4.73	\$ 3.76	\$ 32

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- (1) Aggregate intrinsic value represents the difference between the fair value of the Company's common stock underlying these options at September 30, 2018 and the related exercise prices.

As of September 30, 2018, equity based awards (including stock options and restricted stock units) are available for future issuance as follows:

	Awards Available for Grant
Balance, September 30, 2017	3,081,285
Granted	(1,369,985)
Cancelled	341,000
Additional shares reserved (terminated), net	(613)
Balance, September 30, 2018	<u>2,051,687</u>

7. Commitments and Contingencies

Operating Leases

The majority of the Company's operating lease payments relate to the Company's four building corporate headquarters in Seattle, Washington. The leases for all four buildings will expire in 2022. The Company also leases additional office space for product development and sales and support personnel in the United States and internationally.

In October 2006, the Company entered into an agreement to lease a total of approximately 137,000 square feet of office space in a building known as 333 Elliott West, which is adjacent to the four buildings that serve as the Company's corporate headquarters. The lease expired in May of 2018.

On May 3, 2017, the Company entered into an agreement to lease approximately 515,000 square feet of office space in Seattle, Washington that will serve as its new corporate headquarters. The initial term of the lease is 14.5 years and is expected to commence on the latter of (i) April 1, 2019 or (ii) 10 months after the substantial completion date of the construction of the Premises. This lease will expire in 2033 with an option for renewal.

Future minimum operating lease payments, net of sublease income, are as follows (in thousands):

	Gross Lease Payments	Sublease Income	Net Lease Payments
2019	30,870	—	30,870
2020	45,418	—	45,418
2021	42,615	—	42,615
2022	40,285	—	40,285
2023	31,238	—	31,238
Thereafter	271,882	—	271,882
	<u>\$ 462,308</u>	<u>\$ —</u>	<u>\$ 462,308</u>

Rent expense under non-cancelable operating leases amounted to approximately \$30.0 million, \$30.2 million, and \$30.1 million for the fiscal years ended September 30, 2018, 2017, and 2016, respectively.

Purchase Obligations

Purchase obligations are comprised of purchase commitments with the Company's contract manufacturers. The agreement with the Company's primary contract manufacturer allows them to procure component inventory on the Company's behalf based on the Company's production forecast. The Company is obligated to purchase component inventory that the contract manufacturer procures in accordance with the forecast, unless cancellation is given within applicable lead times. As of September 30, 2018, the Company's remaining unfulfilled purchase obligations were \$26.2 million.

Litigation

On April 4, 2016, the Company sued Radware, Inc. in the United States District Court for the Western District of

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Washington (the case was subsequently moved to the Northern District of California) accusing Radware of infringing three Company patents. The Company's complaint seeks a jury trial and an unspecified amount of monetary damages, as well as interest, costs, and injunctive relief. Radware moved to dismiss the allegations of one patent but the motion was denied.

Radware filed a counterclaim separately asserting that the Company is infringing U.S. patent no. 9,231,853, an expired ISP link load balancing patent related to the patents previously asserted by Radware in litigation in California that has been completed. Radware claims that the Company's BIG-IP product infringes. The counterclaim seeks injunctive relief and unspecified damages.

The Company denied infringement and asserted that the '853 patent is invalid. Both parties filed inter partes reviews (IPRs) on the patents asserted against them. All of Radware's IPRs were denied and the Company's IPR against the '853 patent resulted in cancellation of all but four of the '853 claims. The Court has entered a schedule for trial in November of 2019. Both parties moved for summary judgment on the issue of infringement with respect to the '853 patent. A hearing on the motions was conducted on November 15, 2018 and the Court granted F5's summary judgment motion for noninfringement by order dated November 19, 2018. Accordingly, the case will proceed solely on F5's infringement claims against Radware.

In addition to the above referenced matters, the Company is subject to other legal proceedings, claims, and litigation arising in the ordinary course of business. Management believes that the Company has meritorious defenses to the allegations made in its pending cases and intends to vigorously defend these lawsuits; however, the Company is unable currently to determine the ultimate outcome of these or similar matters or the potential exposure to loss, if any. There are many uncertainties associated with any litigation and these actions or other third-party claims against the Company may cause it to incur costly litigation and/or substantial settlement charges that could have a material adverse effect on the Company's business, financial condition, results of operations, and cash flows.

The Company records an accrual for loss contingencies for legal proceedings when it believes that an unfavorable outcome is both (a) probable and (b) the amount or range of any possible loss is reasonably estimable. The Company has not recorded an accrual for loss contingencies associated with the legal proceedings or the investigations discussed above.

8. Restructuring Charges

In July 2018, the Company initiated a restructuring plan to match strategic and financial objectives and optimize resources for long term growth, including a reduction in force program affecting approximately 215 employees. The Company recorded a restructuring charge of \$18.4 million in the fourth quarter of fiscal 2018. The Company does not expect to record any significant future charges related to the restructuring plan.

During the year ended September 30, 2018, the following activity was recorded (in thousands):

	Employee Severance, Benefits and Related Costs
Accrued expenses, October 1, 2017	\$ 7,741
Restructuring charges	18,426
Cash payments	(17,899)
Non-cash items	—
Accrued expenses, September 30, 2018	<u>\$ 8,268</u>

9. Employee Benefit Plans

The Company has a 401(k) savings plan whereby eligible employees may voluntarily contribute a percentage of their compensation. The Company may, at its discretion, match a portion of the employees' eligible contributions. Contributions by the Company to the plan during the years ended September 30, 2018, 2017, and 2016 were approximately \$10.5 million, \$10.5 million and \$9.5 million, respectively. Contributions made by the Company vest over four years.

10. Geographic Sales and Significant Customers

Operating segments are defined as components of an enterprise for which separate financial information is available and evaluated regularly by the chief operating decision-maker, or decision-making group, in deciding how to allocate resources and

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in assessing performance. Management has determined that the Company is organized as, and operates in, one reportable operating segment: the development, marketing and sale of application services that optimize the security, performance and availability of network applications, servers and storage systems.

The Company does business in four main geographic regions: the Americas (primarily the United States); Europe, the Middle East, and Africa (EMEA); Japan; and the Asia Pacific region (APAC). The Company's chief operating decision-making group reviews financial information presented on a consolidated basis accompanied by information about revenues by geographic region. The Company's foreign offices conduct sales, marketing and support activities. Revenues are attributed by geographic location based on the location of the customer.

The following presents revenues by geographic region (in thousands):

	Years Ended September 30,		
	2018	2017	2016
Americas:			
United States	\$ 1,088,270	\$ 1,075,222	\$ 1,019,054
Other	116,073	110,298	106,228
Total Americas	1,204,343	1,185,520	1,125,282
EMEA	546,239	506,571	487,966
Japan	95,251	95,055	94,767
Asia Pacific	315,574	302,895	287,019
	<u>\$ 2,161,407</u>	<u>\$ 2,090,041</u>	<u>\$ 1,995,034</u>

The following distributors of the Company's products accounted for more than 10% of total net revenue:

	Years Ended September 30,		
	2018	2017	2016
Ingram Micro, Inc.	16.6%	16.1%	14.9%
Tech Data ¹	11.6%	12.4%	13.3%
Synnex Corporation ²	10.8%	—	—
Arrow ECS	10.7%	10.4%	10.1%
Westcon Group, Inc. ²	10.4%	17.7%	18.7%

- (1) On February 27, 2017, Tech Data completed the acquisition of Avnet Technology Solutions. Revenues for the year ended September 30, 2017 represent combined revenues for Tech Data and Avnet while revenues for years ended September 30, 2016 and 2015 represent revenues from Avnet only.
- (2) On September 1, 2017, Synnex Corporation completed the acquisition of Westcon Americas.

The Company tracks assets by physical location. Long-lived assets consist of property and equipment, net, and are shown below (in thousands):

	September 30,	
	2018	2017
United States	\$ 126,790	\$ 103,486
EMEA	12,538	15,054
Other countries	5,714	3,880
	<u>\$ 145,042</u>	<u>\$ 122,420</u>

11. Quarterly Results of Operations (Unaudited)

The following presents the Company's unaudited quarterly results of operations for the eight quarters ended September 30, 2018. The information should be read in conjunction with the Company's financial statements and related notes included elsewhere in this report. This unaudited information has been prepared on the same basis as the audited financial statements and includes all adjustments, consisting only of normal recurring adjustments that were considered necessary for a fair statement of the Company's operating results for the quarters presented.

	Three Months Ended							
	Sept. 30, 2018	June 30, 2018	March 31, 2018	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	March 31, 2017	Dec. 31, 2016
(unaudited and in thousands, except per share data)								
Net revenues								
Products	\$ 256,412	\$ 238,835	\$ 237,558	\$ 227,303	\$ 248,990	\$ 235,109	\$ 241,080	\$ 239,483
Services	306,297	303,368	295,746	295,888	289,008	282,728	277,168	276,475
Total	562,709	542,203	533,304	523,191	537,998	517,837	518,248	515,958
Cost of net revenues								
Products	48,505	45,164	44,127	43,265	46,641	43,787	43,928	41,676
Services	44,935	45,845	45,518	44,122	43,900	45,983	43,984	43,586
Total	93,440	91,009	89,645	87,387	90,541	89,770	87,912	85,262
Gross profit	469,269	451,194	443,659	435,804	447,457	428,067	430,336	430,696
Operating expenses								
Sales and marketing	160,425	165,806	169,970	167,934	162,068	160,952	164,705	164,514
Research and development	95,078	94,061	91,056	85,889	85,479	88,602	89,234	87,050
General and administrative	41,748	39,374	39,276	39,984	37,832	39,368	38,009	41,678
Litigation expense	—	—	—	—	525	1	(135)	—
Restructuring charges	18,426	—	—	—	12,718	—	—	—
Total operating expenses	315,677	299,241	300,302	293,807	298,622	288,923	291,813	293,242
Income from operations	153,592	151,953	143,357	141,997	148,835	139,144	138,523	137,454
Other income, net	5,667	2,259	2,790	2,145	5,027	2,589	1,302	2,643
Income before income taxes	159,259	154,212	146,147	144,142	153,862	141,733	139,825	140,097
Provision for income taxes	26,378	31,469	36,511	55,713	18,119	44,071	46,687	45,879
Net income	\$ 132,881	\$ 122,743	\$ 109,636	\$ 88,429	\$ 135,743	\$ 97,662	\$ 93,138	\$ 94,218
Net income per share — basic	\$ 2.20	\$ 2.01	\$ 1.79	\$ 1.42	\$ 2.15	\$ 1.53	\$ 1.44	\$ 1.45
Weighted average shares — basic	60,462	60,970	61,420	62,195	63,088	63,935	64,479	65,195
Net income per share — diluted	\$ 2.18	\$ 1.99	\$ 1.77	\$ 1.41	\$ 2.14	\$ 1.52	\$ 1.43	\$ 1.44
Weighted average shares — diluted	61,070	61,633	62,059	62,550	63,446	64,361	65,028	65,645

12. Subsequent Events

On October 31, 2018, the Company's Board of Directors authorized an additional \$1.0 billion for its common stock share repurchase program. This new authorization is incremental to the \$573.6 million currently unused in the existing program, which was initially approved in October 2010.

Acquisitions for the share repurchase program will be made from time to time in private transactions or open market purchases as permitted by securities laws and other legal requirements. The timing and amounts of any purchases will be based on market conditions and other factors including but not limited to price, regulatory requirements and capital availability. The program does not require the purchase of any minimum number of shares and the program may be modified, suspended or discontinued at any time.

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

The Company maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) that are designed to ensure that required information is recorded, processed, summarized and reported within the required timeframe, as specified in the rules set forth by the Securities Exchange Commission. Our disclosure controls and procedures are also designed to ensure that information required to be disclosed is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2018 and, based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of September 30, 2018.

Management’s Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). 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.

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 conducted an assessment of the effectiveness of our internal control over financial reporting as of September 30, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control — Integrated Framework (2013)*. Based on the results of this assessment and on those criteria, management concluded that our internal control over financial reporting was effective as of September 30, 2018.

The effectiveness of the Company’s internal control over financial reporting as of September 30, 2018, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control over Financial Reporting

During the fourth fiscal quarter, there were no changes to our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Item 9B. *Other Information*

None.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance*

Certain information required by this item regarding the Company's directors and executive officers is incorporated herein by reference to the sections entitled "Board of Directors — Nominees and Continuing Directors," "Corporate Governance — Committees of the Board — Audit Committee" and "— Code of Ethics for Senior Financial Officers" and "— Director Nomination," and "Security Ownership of Certain Beneficial Owners and Management — Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's definitive Proxy Statement that will be furnished to the SEC no later than January 28, 2019 (the "Proxy Statement"). Additional information regarding the Company's directors and executive officers is set forth in Item 1 of Part I of this Annual Report on Form 10-K under the caption "Directors and Executive Officers of the Registrant."

Item 11. *Executive Compensation*

The information required by this item is incorporated by reference to the sections entitled "Executive Compensation" and "Corporate Governance — Committees of the Board — Compensation Committee" and "— Compensation Committee Interlocks and Insider Participation" and "— Compensation Committee Report" in the Proxy Statement.

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

The information required by this item is incorporated by reference to the section entitled "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The information required by this item is incorporated by reference to the sections entitled "Board of Directors — Director Independence" and "Corporate Governance — Related Person Transactions Policy and Procedures" and "— Certain Relationships and Related Person Transactions" in the Proxy Statement.

Item 14. *Principal Accountant Fees and Services*

The information required by this item is incorporated by reference to the section entitled "Executive Compensation — Fees Paid to PricewaterhouseCoopers LLP" and "— Audit Committee Pre-Approval Procedures" and "— Annual Independence Determination" in the Proxy Statement.

PART IV

Item 15. *Exhibits and Financial Statement Schedules*

(a) Documents filed as part of this report are as follows:

1. *Consolidated Financial Statements:*

Our Consolidated Financial Statements are listed in the Index to Consolidated Financial Statements.

2. *Financial Statement Schedule:*

Financial statement schedules have been omitted because the information required to be set forth therein is not applicable, material, or is shown in the Consolidated Financial Statements or the notes hereto.

3. *Exhibits:*

The required exhibits are included at the end of this Annual Report on Form 10-K and are described in the Exhibit Index immediately preceding the first exhibit.

Item 16. *Form 10-K Summary*

Not applicable.

EXHIBIT INDEX

Exhibit Number	Exhibit Description
2.1	— Agreement and Plan of Merger dated as of May 31, 2004, by and among the Registrant, Fire5, Inc., a wholly owned subsidiary of the Registrant, MagniFire Websystems, Inc., and Lucent Venture Partners III LLC(1)
3.1	— Third Amended and Restated Articles of Incorporation of the Registrant(2)
3.2	— Fifth Amended and Restated Bylaws of F5 Networks, Inc.(3)
4.1	— Specimen Common Stock Certificate(4)
10.1	— Second Amended and Restated Office Lease Agreement dated April 5, 2010, between the Registrant and CLP--Elliott West, L.P.(5)
10.2	— Sublease Agreement dated March 30, 2001 between the Registrant and Cell Therapeutics, Inc.(6)
10.3	— First Amendment to Sublease Agreement dated April 13, 2001 between the Registrant and Cell Therapeutics, Inc.(7)
10.4	— Second Amendment to Sublease Agreement dated March 6, 2002 between the Registrant and Cell Therapeutics, Inc.(7)
10.5	— Third Amendment to Sublease Agreement dated as of December 22, 2005 between the Registrant and Cell Therapeutics, Inc.(7)
10.6	— Office Lease Agreement with Selig Real Estate Holdings IIX, L.L.C. dated October 31, 2006(8)
10.7	— Office Lease Agreement between F5 Networks, Inc. and Fifth & Columbia Investors, LLC dated May 3, 2017(9)
10.8	— Form of Indemnification Agreement between the Registrant and each of its directors and certain of its officers(4) §
10.9	— 2011 Employee Stock Purchase Plan(10) §
10.10	— Form of Change of Control Agreement between F5 Networks, Inc. and the executive officers(11) §
10.11	— Traffix Communication Systems Ltd. 2007 Israeli Employee Share Option Plan(12) §
10.12	— Traffix Communication Systems Ltd. Acquisition Equity Incentive Plan(12) §
10.13	— Versafe Ltd. Acquisition Equity Incentive Plan(13) §
10.14	— F5 Networks, Inc. 2014 Incentive Plan (Amended and Restated effective March 9, 2017) (14) §
10.15	— Defense.Net, Inc. 2012 Stock Option and Grant Plan(15) §
10.16	— Defense.Net Acquisition Equity Incentive Plan(15) §
10.17	— Form of 2014 Incentive Plan Award Agreement (Accelerated Vesting) as revised November 2014(16) §
10.18	— Form of 2014 Incentive Plan Award Agreement (Accelerated Vesting) as revised October 2017(17) §
10.19	— Retirement Agreement between John McAdam and F5 Networks, Inc.(18) §
10.20	— Waiver and Non-Competition Agreement and General Release of all Claims(19) §
10.21	— Separation and Consulting Agreement and General Release of all Claims(20) §
10.22	— Offer Letter from F5 Networks, Inc. to François Locoh-Donou(21) §
10.23	— Offer Letter from F5 Networks, Inc. to Francis J. Pelzer(22) §
10.24	— Separation Agreement and General Release of all Claims(22) §
21.1 *	— Subsidiaries of the Registrant
23.1 *	— Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
31.1 *	— Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2 *	— Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1 *	— Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS *	— XBRL Instance Document
101.SCH *	— XBRL Taxonomy Extension Schema Document
101.CAL *	— XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF *	— XBRL Taxonomy Extension Definition Linkbase Document
101.LAB *	— XBRL Taxonomy Extension Label Linkbase Document

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Exhibit Number	Exhibit Description
101.PRE *	— XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

§ Indicates a management contract or compensatory plan or arrangement.

- (1) Incorporated by reference from Current Report on Form 8-K dated May 31, 2004 and filed with the SEC on June 2, 2004.
- (2) Incorporated by reference from Current Report on Form 8-K dated March 19, 2013 and filed with the SEC on March 19, 2013.
- (3) Incorporated by reference from Current Report on Form 8-K dated April 22, 2015 and filed with the SEC on April 22, 2015.
- (4) Incorporated by reference from Registration Statement on Form S-1, File No. 333-75817.
- (5) Incorporated by reference from Current Report on Form 8-K dated April 5, 2010 and filed with the SEC on April 8, 2010.
- (6) Incorporated by reference from Quarterly Report on Form 10-Q for the quarter ended June 30, 2001.
- (7) Incorporated by reference from Annual Report on Form 10-K for the year ended September 30, 2006.
- (8) Incorporated by reference from Current Report on Form 8-K dated October 31, 2006 and filed with the SEC on November 3, 2006.
- (9) Incorporated by reference from Current Report on Form 8-K dated May 3, 2017 and filed with the SEC on May 3, 2017.
- (10) Incorporated by reference from Appendix B of Proxy Statement for 2015 Annual Meeting of Stockholders and filed with the SEC on January 16, 2015.
- (11) Incorporated by reference from Current Report on Form 8-K dated April 29, 2009 and filed with the SEC on May 4, 2009.
- (12) Incorporated by reference from Registration Statement on Form S-8 File No. 333-179794.
- (13) Incorporated by reference from Registration Statement on Form S-8 File No. 333-191773.
- (14) Incorporated by reference from Registration Statement on Form S-8 File No. 333-217436.
- (15) Incorporated by reference from Registration Statement on Form S-8 File No. 333-196405.
- (16) Incorporated by reference from Annual Report on Form 10-K for the year ended September 30, 2014.
- (17) Incorporated by reference from Annual Report on Form 10-K for the year ended September 30, 2017.
- (18) Incorporated by reference from Quarterly Report on Form 10-Q for the quarter ended March 31, 2015.
- (19) Incorporated by reference from Current Report on Form 8-K dated December 13, 2015 and filed with the SEC on January 6, 2016.
- (20) Incorporated by reference from Current Report on Form 8-K dated September 26, 2016 and filed with the SEC on September 30, 2016.
- (21) Incorporated by reference from Current Report on Form 8-K dated January 27, 2017 and filed with the SEC on January 30, 2017.
- (22) Incorporated by reference from Current Report on Form 8-K dated April 20, 2018 and filed with the SEC on April 25, 2018.

