VMWARE, INC.
Form 10-K
February 25, 2016
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K
(Mark One)

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

For the fiscal year ended December 31, 2015
OR

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

For the transition period from to
Commission File Number 001-33622

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

Delaware	94-3292913
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
3401 Hillview Avenue Palo Alto, CA	94304
(Address of principal executive offices)	(Zip Code)

(650) 427-5000
(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Class A Common Stock, par value $0.01	New York Stock Exchange

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

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

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

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 x No o

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

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

Large accelerated filer	x		Accelerated filer	o
Non-accelerated filer	o	(Do not check if a smaller reporting company)	Smaller reporting company	o

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

At June 30, 2015, the aggregate market value of the registrant’s Class A common stock held by non-affiliates of the registrant (based upon the closing sale price of such shares on the New York Stock Exchange on June 30, 2015) was approximately $6,814,162,420. Shares of the registrant’s Class A common stock and Class B common stock held by each executive officer and director and by each entity or person, other than investment companies, that, to the registrant’s knowledge, owned 5% or more of the registrant’s outstanding Class A common stock as of June 30, 2015 have been excluded in that such persons may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 19, 2016, the number of shares of common stock, par value $0.01 per share, of the registrant outstanding was 423,592,297 of which 123,592,297 shares were Class A common stock and 300,000,000 were Class B common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Information required in response to Part III of Form 10-K (Items 10, 11, 12, 13 and 14) is hereby incorporated by reference to portions of the registrant’s Proxy Statement for the Annual Meeting of Stockholders to be held in 2016. The Proxy Statement will be filed by the registrant with the Securities and Exchange Commission no later than 120 days after the end of the registrant’s fiscal year ended December 31, 2015.

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Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements, including, without limitation, statements regarding expectations of, or our plans for: the IT industry transformation and our related strategic positioning; expected benefits to customers of our product and service offerings; planned product offerings in connection with our cloud strategy; sales growth in our emerging products, including vSAN and NSX; costs and timing of our realignment plans; slowing of total revenue growth in 2016 as sales transition to emerging products; the level of overall license revenues growth in 2016; impact on professional services revenues of expanding our ecosystem of third-party professionals with expertise in our offerings; increasing employee headcount and its impact on operating expense; the level of amortization of capitalized software development costs in future years; indefinitely reinvesting our overseas earnings outside of the U.S. and not repatriating them to the U.S.; continuing to be included in the consolidated tax group of EMC Corporation; the sufficiency of our liquidity and capital reserves to fund our normal operating requirements; our ability to generate positive cash flows from operations; our ability to obtain liquidity, arrange debt financing or enter into credit facilities, should additional liquidity be required; impact of installment payments to certain key employees of AirWatch on cash flows from operations; the effect on us of the resolutions of pending claims, legal proceedings and investigations and other matters described in Note L of the notes to the consolidated financial statements; the level of additional stock repurchases pursuant to existing stock repurchase authorization; possible reductions to the amount of our total unrecognized tax benefits; the impact of Denali’s proposed acquisition of EMC; and Denali’s intentions with respect to future purchases of VMware common stock and VMware’s use of its cash if its proposed acquisition of EMC is completed. These forward-looking statements involve risks and uncertainties and the cautionary statements set forth above and those contained in the section of this report entitled “Risk Factors” identify important factors that could cause actual results to differ materially from those predicted in any such forward-looking statements. All forward-looking statements in this document are made as of the date hereof, based on information available to us as of the date hereof. We assume no obligation to, and do not currently intend to, update these forward-looking statements.

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PART I

ITEM 1. BUSINESS

Overview

VMware, Inc. (“VMware”) pioneered the development and application of virtualization technologies with x86 server-based computing, separating application software from the underlying hardware. We are a leader in virtualization and cloud infrastructure solutions that enable businesses to transform the way they build, deliver and consume Information Technology (“IT”) resources in a manner that is evolutionary and based on their specific needs. The benefits to our customers include lower IT costs and a more automated and resilient systems infrastructure capable of responding dynamically to variable business demands.

Over the years, we have increased our product offerings beyond compute virtualization to include offerings that allow organizations to manage IT resources across private clouds and complex multi-cloud, multi-device environments by leveraging synergies across these three product groups:

- SDDC or Software-Defined Data Center
- Hybrid Cloud Computing
- End-User Computing

We were the first company to articulate a vision for the SDDC, where increasingly infrastructure is virtualized and delivered as a service, enabling control of the data center to be entirely automated by software.

We incorporated in Delaware in 1998, were acquired by EMC in 2004 and conducted our initial public offering of our Class A common stock in August 2007. EMC holds approximately 81.3% of our outstanding common stock, including 43 million shares of our Class A common stock as of December 31, 2015, and all of our Class B common stock, and we are considered a “controlled company” under the rules of the New York Stock Exchange. On October 12, 2015, Dell Inc. (“Dell”), Denali Holding Inc. (“Denali”) and EMC entered into a definitive agreement under which Denali has agreed to acquire EMC. Under the terms of the agreement, we will continue to operate as a publicly traded company. Upon closing of the transaction, a portion of the merger consideration that EMC shareholders will receive will include shares of Class V common stock that will be registered with the Securities and Exchange Commission and issued by Denali. Pursuant to the terms of the agreement, it is expected that approximately 0.111 shares of Class V common stock will be issued by Denali for each EMC share. Denali has disclosed that the Class V common stock will be a publicly traded tracking stock that, upon issuance, is intended to track the performance of an approximately 53% economic interest in our business. The closing of the transactions contemplated by the merger agreement is subject to approval of the EMC shareholders as well as various regulatory approvals.

Total revenues in 2015 increased 9% to $6,571 million. This is primarily comprised of license revenues of $2,720 million and services revenues of $3,927 million. Of our total services revenues in 2015, 87% comprised software maintenance revenues and the remaining 13% was comprised of professional services revenues, including training. Historically, the majority of our license sales have been from VMware vSphere, which is included in our compute product category within our SDDC product group. However, over the last two years, VMware vSphere license sales have declined. As the transformation of the IT industry continues, we expect that our growth will be increasingly derived from sales of our newer products, suites and services solutions across our three product groups. For example, we have experienced continued growth in sales volumes, production use and number of customers who have purchased VMware NSX, our network virtualization solution. In addition, our end-user computing solutions continue to grow driven in part by enterprise mobile management offerings. For additional financial information on our business by product and geographic area, refer to Note O to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K. Our corporate headquarters are located at 3401 Hillview Avenue, Palo Alto, California, and we have 119 offices worldwide.

Products and Technology

Software-Defined Data Center

VMware was the first company to articulate a vision for the SDDC, where increasingly infrastructure is virtualized, enabling management of the data center to be entirely automated by software, from one, unified platform. Traditional data centers are loose collections of technology silos where each application type has its own vertical stack consisting of a CPU and operating system, storage pool, networking and security, and management systems. Over time, costs to maintain the data center infrastructure have been increasing because the data center environment has become divergent, leading to higher complexity. The increased complexity of the data center demands constantly increasing resources to manage and maintain the IT infrastructure. The SDDC is designed to transform the data center into an on-demand service that addresses application requirements by abstracting, pooling and automating the services that are required from the underlying hardware. SDDC promises to dramatically simplify data center operations and lower costs.

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Our SDDC architecture consists of four main product categories:
- Compute
- Storage and Availability
- Network and Security
- Management and Automation

Compute

VMware vSphere ("vSphere"), our flagship data center platform, provides the fundamental compute layer for VMware environments. A "hypervisor" is a layer of software that resides between the operating system and system hardware to enable compute virtualization. Users deploy the vSphere hypervisor when they purchase vSphere or suite versions that include vSphere, such as VMware vCloud Suites and vSphere with Operations Management ("vSOM").

Storage and Availability

We provide many storage and availability products to offer cost-effective holistic data storage and protection options to all applications running on the vSphere platform. These products serve as hyper-converged infrastructure solutions designed to enable customers to deploy a broad range of hardware solutions. Key hyper-converged infrastructure solutions in this area consist of:
- Virtual SAN-clusters server disks to create radically simple shared storage designed for virtual machines.
- vSphere Replication-provides cost-efficient and simple way to manage replication.
- vCenter Site Recovery Manager-leverages vSphere and vSphere Replication to protect applications against site failures and to streamline planned migrations.

Sales volumes of our Virtual SAN ("vSAN") continued to grow and customer count continued to increase during 2015. Our latest release introduced new data efficiency capabilities for all-flash storage, in addition to new Quality of Service and performance and capacity monitoring capabilities. We expect further growth during 2016 for vSAN.

Network and Security

Network virtualization abstracts physical networks and greatly simplifies the provisioning and consumption of networking resources. In addition, security services are built in, do not require purpose-built hardware, and can scale with the network. Our network virtualization solution is VMware NSX ("NSX"), which was launched in the third quarter of 2013. Sales volumes of NSX continued to grow during 2015 across three key customer priorities: security, automation, and application continuity. During 2015, VMware customers increasingly moved beyond early deployments and introduced NSX into production environments. While the market for network virtualization continues to be in an early stage, we see future opportunities in this market and expect increased customer deployment in 2016.

Management and Automation

Our management and automation products move beyond core compute infrastructure to manage and automate overarching IT processes involved in provisioning IT services and resources to users from initial infrastructure deployment to retirement. These IT processes manage virtualized and non-virtualized infrastructure resources and private and public cloud infrastructures, including hybrid cloud services. Examples of products in the management and automation product portfolio include:
- vRealize Operations-provides performance, capacity and configuration management for virtual or physical infrastructure.
- vRealize Automation-enables customers to rapidly deploy and provision cloud services.
- vRealize Business-provides transparency and control over the costs and quality of IT services.

Software-Defined Data Center Suites

Our SDDC products are available separately or may be acquired as part of a suite. The VMware vCloud Suite, vSOM, and VMware vRealize suite are packaged solutions for building and managing a complete cloud infrastructure optimized for use with the vSphere platform. VMware vCloud Suite is designed to fulfill the promise of the software-defined data center by pooling industry-standard hardware and running compute and management functions in the data center as software-defined services. vSOM allows users to optimize capacity and monitor the workload performance of their vSphere environments. The VMware vRealize suite is a cloud management platform that extends vCloud Suite capabilities beyond a vSphere private cloud environment to both heterogeneous and hybrid cloud environments.

Hybrid Cloud Computing

Our cloud strategy has three components: (i) continue to expand beyond compute virtualization in the private cloud, (ii) extend the private cloud into the public cloud, and (iii) connect and secure endpoints across a range of public clouds. Our cloud strategy is designed to provide organizations with solutions that work across all clouds and all devices.

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We enable our customers to utilize off-premise vSphere-based hybrid cloud computing capacity through two offerings: VMware vCloud Air Network Service Providers ("vCAN") and VMware vCloud Air ("vCloud Air").
Our vCAN program is directed at hosting and cloud computing vendors, enabling organizations to choose between running applications in virtual machines on their own "private clouds" inside their data center or on "public clouds" hosted by a service provider.
vCloud Air, built on the foundation of vSphere, is a public cloud operated by us that includes infrastructure and disaster recovery, while providing customers with a common platform to seamlessly extend their data center to the cloud. vCloud Air enables customers to extend the same skills, tools, networking and security models across both on-premise and off-premise environments. We plan to narrow the focus of vCloud Air to provide specialized cloud software and services unique to VMware that are distinct from those offered by other cloud providers.
End-User Computing ("EUC")
Our End-User Computing portfolio enables IT organizations to efficiently deliver more secure access to applications, data and devices for their end users. Our solutions provide end users a digital workspace, within which they can deliver any application to any device in an increasingly mobile-cloud era, while supporting corporate IT with appropriate management and security to networks, preventing data loss, and enabling a high-quality of service-on-premises or in the cloud. Our solutions are designed to optimize simplicity and choice to end-users, while providing security and control to corporate IT.
EUC's product portfolio consists of our AirWatch mobile solutions, our Horizon application and desktop virtualization solutions, and a set of common services such as VMware Identity Manager. We have combined these solutions into a single offering, Workspace One, which brings together application and desktop management, mobile management, content collaboration and identity management. This solution provides customers with a complete digital workspace which leverages our software defined datacenter solutions so that customers can extend the value of virtualization from their datacenter to their devices.
Our Digital Workspace offering (Workspace One) includes:
- Enterprise Mobility Management and Identity Management
- Application and Desktop Virtualization
- Content Collaboration

Enterprise Mobility Management ("EMM") and Identity Management
AirWatch, a leader in enterprise mobile management and security, provides a portfolio of solutions for managing mobile devices, applications and content while also securing mobile email, securing browsing across any device, and providing telecom analytics and other key modules.
Our mobile offerings are sold both as perpetual licenses and as software-as-a-service ("SaaS"). AirWatch provides the core foundation to support an increasingly mobile workforce and customer base, enabling customers to take advantage of "bring your own device" initiatives.
VMware Identity Manager is a cloud service incorporated into our Workspace One offering that delivers single sign-on for SaaS, web, cloud and mobile applications, from any device, with conditional access that is integrated with our EMM offering, AirWatch.
Application and Desktop Virtualization
Our Application and Desktop Virtualization offering includes:
- Horizon - Horizon desktop and application virtualization solutions provide organizations with a streamlined approach to delivering, protecting and managing desktops and applications while containing costs and allowing end users to work anytime, anywhere, across any device.
- Fusion and Workstation-provide personal desktop virtualization solutions for Macintosh and Windows.

Cloud-based and local virtual desktops and applications provide our customers with the flexibility to meet the needs of Mac and PC users, contractors and other mobile users who are largely disconnected from the network while enabling security, control and compliance of the corporate applications and data. Our cloud-based and local virtual desktop solutions are VMware Horizon Air and VMware Horizon FLEX, along with our real-time application delivery and lifecycle management solution, App Volumes, which were primarily introduced during 2014.

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Content Collaboration

AirWatch by VMware's Content Locker provides a leading enterprise file sync and share solution that extends Mobile Content Management to secure access of content on any device, desktop or mobile, while allowing the content to be stored in any federated data-store whether on-premise or in the cloud. Our content collaboration solutions also include Socialcast, our enterprise social computing solution that allow users to complement their use of email with rich communication in consumer-grade experiences.

Technology Alliances

Consistent with our partner-centric strategy, we have engaged a broad group of hardware, software and cloud computing service vendors to cooperatively advance virtualization technology through joint marketing, product interoperability, collaboration and co-development. We create opportunity for partners by enabling them to build products that utilize our virtualization technology and create differentiated value through joint solutions.

We have more than 1,200 technology partners with whom we bring joint offerings to the marketplace and over 4,000 active service provider partners. We classify our partners as follows:

Independent Hardware Vendors ("IHVs") We have established relationships with large system vendors, including Cisco, Dell, Fujitsu, HPE, IBM, Lenovo and NEC for joint certification and co-development. We also work closely with AMD, Intel and other IHVs to provide input on product development to enable them to deliver hardware advancements that benefit virtualization users. We coordinate with the leading storage and networking vendors to ensure joint interoperability and enable our software to access their differentiated functionality.

Independent Software Vendors ("ISVs") We partner with leading systems management, infrastructure software and application software vendors-including healthcare, telecom, finance and retail market leaders-to deliver value-added products that integrate with our VMware products.

VMware Service Providers We have established partnerships with over 4,000 active service providers in our vCAN program including CenturyLink, Claranet, Fujitsu, IBM, KPN, Macquarie, Navisite, Nifty, NTT, OVH, RackForce Networks, Rackspace, Tieto, T-Systems and UOL Diveo to enable them to host and deliver enterprise-class hybrid clouds as a way for enterprises to extend their data centers to external clouds, while preserving security, compliance and quality of service.

Our Technology Alliance Partner program facilitates joint solution creation and coordinated go-to-market activities with our partners. Over 4,500 of the most widely used applications from ISVs support the vSphere platform. These applications include business solutions for enterprise resource planning, human resource management, electronic medical records management, financial processing and middleware, such as application servers and databases.

Our ISVs and other alliance partners, developers and additional VMware community members have distributed more than 2,900 software applications as virtual appliances. We invest significant capital in testing and certification of infrastructure to rigorously ensure our software works well with major hardware and software products.

Research and Development

We have made, and expect to continue to make, significant investments in research and development ("R&D"). We have assembled an experienced group of developers with system level, systems management, desktop, mobile devices, security, application development, collaborative applications, networking, storage and open source software expertise. We also have strong ties to leading academic institutions around the world, and we invest in joint research with academia.

We prioritize our product development efforts through a combination of engineering-driven innovation and customer and market-driven feedback. Our R&D culture places high value on innovation, quality and open collaboration with our partners. We currently participate in numerous standards groups and VMware employees hold a variety of standards organization leadership positions.

Our R&D expenses totaled $1,300 million, $1,239 million, and $1,082 million in 2015, 2014 and 2013, respectively.

Sales and Marketing

We have a highly leveraged go-to-market strategy that includes a direct sales force that is complementary to our channel. Our sales force works with our channel partners to introduce them to end-user customer accounts and new sales opportunities.

We have established ongoing business relationships with our distributors. Our distributors purchase software licenses and software support from us for resale to end-user customers via resellers. These resellers are part of our VMware Partner Network (“VPN”), which offers resellers sales and product training, pricing incentives, rebates and access to the worldwide network of VMware distributors and the VMware Partner Central Web portal. In addition, our channel partner network includes certain systems integrators and resellers trained and certified to deliver consulting services and solutions leveraging VMware products.

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We generally do not have long-term contracts or minimum purchase commitments with our distributors, resellers, system vendors and systems integrators, and our contracts with these channel partners do not prohibit them from offering products or services that compete with ours.

End users can obtain licenses to our products through individual discrete purchases to meet their immediate needs or through the adoption of enterprise agreements (“EAs”). EAs are comprehensive volume license offerings that provide for multi-year maintenance and support at discounted prices. EAs enable us to build long-term relationships with our customers as they commit to our virtual infrastructure solutions in their data centers. Our sales cycle can vary greatly depending on numerous factors, including the size and complexity of the proposed offering and customer’s infrastructure.

In establishing list prices for our products, we take into account, among other numerous factors, the value our products and solutions deliver and the cost of both alternative virtualization and hardware solutions.

Our marketing efforts focus on communicating the benefits of our solutions and educating our customers, distributors, resellers, system vendors, systems integrators, the media and analysts about the advantages of our innovative virtualization technology. We raise awareness of our company and brands, market our products and generate sales leads through VMware and industry events, public relations efforts, marketing materials, advertising, direct marketing, social media initiatives, free downloads and our website. We have invested in multiple online communities that enable customers and partners to share and discuss sales and development resources, best practices implementation, and industry trends among other topics. Our annual user conference, VMworld, is held in both the U.S. and Europe. We also offer management presentations, seminars, and webinars on our products of virtualization and cloud computing. We believe the combination of these activities strengthens our brand and enhances our leading market position in our industry.

During 2015, we also increased joint marketing, sales, branding and product development efforts with EMC and other EMC companies such as Pivotal, VCE and Virtustream, under the EMC Federation brand.

Our business is subject to seasonality in the sale of our products and services. For example, our fourth quarter revenues are affected by a number of seasonal factors, including fiscal year-end spending trends. Such factors historically have contributed to stronger fourth quarter revenues in any given year. We believe that seasonal factors are common within our industry.

Customers

Our customer deployments range in size from a single virtualized server for small businesses to thousands of virtual machines for our largest enterprise customers.

During 2015, three distributors, who purchased software licenses and software support from us for resale to end-user customers directly or via resellers, each accounted for over 10% of our consolidated revenues. Arrow Electronics, Inc., Tech Data Corporation and Ingram Micro, Inc. accounted for 15%, 12% and 11%, respectively, of our consolidated revenues in 2015. Our distribution agreements are typically terminable at will by either party upon 30 to 90 days’ prior written notice to the other party, and neither party has any obligation to purchase or sell any products under the agreement.

Competition

The virtualization, cloud computing, end-user computing and software-defined data center industries are inter-related and rapidly evolving, and we face intense competition across all the markets for our products and services. We believe that the key factors in our ability to successfully compete include the level of reliability, interoperability and new functionality of our product and service offerings; the ability of our product offerings to support multiple hardware platforms, operating systems, applications frameworks and public cloud platforms; our ability to anticipate customer needs in rapidly evolving markets for IT resources; the pricing of our product and service offerings; the ability to integrate open source technologies that are critical in private and public cloud computing architectures; the ability to attract and retain key employees; and the ability to maintain and expand our ecosystem of technology partners, service providers and sales channel partners. While we believe that we are a technology leader in virtualization and cloud infrastructure solutions and have a strong, favorable image with our customers, many of our current or potential competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, technical, sales, marketing and other resources than we do.

We face competition from, among others:
Providers of public cloud infrastructure and SaaS-based offerings. As businesses increasingly utilize public cloud and SaaS-based offerings, they are building more of their new compute workloads off-premises. As a result, the demand for on-premises IT resources is expected to slow, and our products and services will need to increasingly compete for customers' IT workloads with off-premises public cloud and SaaS-based offerings. If we fail to develop products and services that address evolving customer requirements and that complement and or compete with off-premises compute resources offered by competitors, the demand for VMware’s virtualization products and services may decline, and we could experience lower growth. Additionally, vCloud Air Network offerings from our partners and certain vCloud Air offerings may compete directly with infrastructure-as-a service offerings from various public cloud providers such as Amazon and Microsoft.

Large, diversified enterprise software and hardware companies. These competitors supply a wide variety of products and services to, and have well-established relationships with, our current and prospective end users. For example, small to medium sized businesses and companies in emerging markets that are evaluating the adoption of virtualization-based technologies and solutions may be inclined to consider Microsoft solutions because of their existing use of Windows and Office products. Some of these competitors have in the past and may in the future take advantage of their existing relationships to engage in business practices that make our products and services less attractive to our end users. Other competitors have limited or denied support for their applications running in VMware virtualization environments. In addition, these competitors could integrate competitive capabilities into their existing products and services and make them available without additional charge. For example, Oracle provides free server virtualization software intended to support Oracle and non-Oracle applications, and Microsoft offers its own server virtualization software packaged with its Windows Server product and offers built-in virtualization in the client version of Windows. As a result, existing and prospective VMware customers may elect to use products that are perceived to be “free” or “very low cost” instead of purchasing VMware products and services for certain applications where they do not believe that more advanced and robust capabilities are required.

Companies offering competing platforms based on open source technologies. Open source technologies for virtualization, containerization and cloud platforms such as Xen, KVM, Docker, Rocket and OpenStack provide significant pricing competition and enable competing vendors to leverage these open source technologies to compete directly with our SDDC initiative. Enterprises and service providers have shown significant interest in building their own clouds based on open source projects such as OpenStack, and other companies have indicated their intention to expand offerings of virtual management and cloud computing solutions as well. Additionally, a number of enterprise IT hardware vendors have released solutions based on OpenStack including HP, IBM and Cisco.

Other industry alliances. Many of our competitors have entered into or extended partnerships or other strategic relationships to offer more comprehensive virtualization and cloud computing solutions than they individually had offered. We expect these trends to continue as companies attempt to strengthen or maintain their positions in the evolving virtualization infrastructure and enterprise IT solutions industry. These alliances may result in more compelling product and service offerings than we offer.

Our partners and members of our developer and technology partner ecosystem. We face competition from our partners. For example, third parties currently selling our products and services could build and market their own competing products and services or market competing products and services of other vendors. Additionally, as formerly distinct sectors of enterprise IT such as software-based virtualization and hardware-based server, networking and storage solutions converge, we also increasingly compete with companies who are members of our developer and technology partner ecosystem. Consequently, we may find it more difficult to continue to work together productively on other projects, and the advantages we derive from our ecosystem could diminish.

Intellectual Property

As of December 31, 2015, approximately 890 patents issued by the United States Patent and Trademark Office have been granted or assigned to us. We also have been granted or assigned patents from other countries. These patents cover various aspects of our server virtualization and other technologies. The granted United States patents expire beginning in 2018, with the latest patent expiring in 2034. We also have numerous pending United States provisional and non-provisional patent applications, and numerous pending foreign and international patent applications, that cover other aspects of our virtualization and other technologies.

We have federal trademark registrations in the United States for “VMWARE,” “VMWORLD,” “VSPHERE,” “VMWARE VCLOUD,” “VMWARE VIEW,” “VMOTION,” “HORIZON,” “AIRWATCH,” “VREALIZE,” “VFABRIC,” “VCLOUD,” “VMWARE NSX” and numerous other trademarks. We have also registered trademarks in a number of foreign countries.

We rely on a combination of patent, trademark, copyright and trade secret laws in the United States and other jurisdictions, as well as confidentiality procedures and contractual provisions to protect our intellectual property rights and our brand.

We enforce our intellectual property rights in the United States and a number of foreign countries. Despite our efforts, the steps we have taken to protect our proprietary rights may not be adequate to preclude misappropriation of our proprietary information or infringement of our intellectual property rights, and our ability to police such misappropriation or infringement is uncertain, particularly in countries outside of the United States. United States patent filings are intended to provide the holder with a right to exclude others from making, using, offering to sell, selling or importing into the United States products covered by the claims of granted patents.

Our granted United States patents, and any future patents (to the extent they are issued), may be contested, circumvented or invalidated in the future. Moreover, the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages, and we may not be able to prevent third parties from infringing these patents. Therefore, the exact effect of our patents and the other steps we have taken to protect our intellectual property cannot be predicted with certainty.

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Employees

As of December 31, 2015, we had approximately 19,000 employees in 119 offices worldwide, less than 5% of which were contracted through EMC. None of our employees are represented by labor unions, and we consider current employee relations to be good.

We contract with EMC to utilize personnel who are dedicated to work for VMware on a full-time basis. These individuals are located in countries in which we do not currently have an operating subsidiary and are predominantly dedicated to our sales and marketing efforts. We use contractors from time to time for temporary assignments and in locations in which we do not currently have operating subsidiaries. In the event that these contractor resources were not available, we do not believe that this would have a material adverse effect on our operations.

Available Information

Our website is located at www.vmware.com, and our investor relations website is located at http://ir.vmware.com. Our goal is to maintain the Investor Relations website as a portal through which investors can easily find or navigate to pertinent information about us, all of which is made available free of charge, including:

- our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after we electronically file that material with or furnish it to the Securities and Exchange Commission (“SEC”);
- announcements of investor conferences, speeches and events at which our executives talk about our products, services and competitive strategies;
- webcasts of our quarterly earnings calls and links to webcasts of investor conferences at which our executives appear (archives of these events are also available for a limited time);
- additional information on financial metrics, including reconciliations of non-GAAP financial measures discussed in our presentations to the nearest comparable GAAP measure;
- press releases on quarterly earnings, product and service announcements, legal developments and international news;
- corporate governance information including our certificate of incorporation, bylaws, corporate governance guidelines, board committee charters, business conduct guidelines (which constitutes our code of business conduct and ethics) and other governance-related policies;
- other news, blogs and announcements that we may post from time to time that investors might find useful or interesting; and
- opportunities to sign up for email alerts and RSS feeds to have information pushed in real time.

The information found on our website is not part of, and is not incorporated by reference into, this or any other report we file with, or furnish to, the SEC.

EXECUTIVE OFFICERS OF THE REGISTRANT

The names of our executive officers and their ages as of February 19, 2016, are as follows:

Name	Age	Position(s)
Patrick P. Gelsinger	54	Chief Executive Officer and Director
Carl M. Eschenbach	49	President and Chief Operating Officer
Jonathan C. Chadwick	50	Chief Financial Officer, Chief Operating Officer and Executive Vice President
Sanjay Poonen	46	Executive Vice President and General Manager, End-User Computing
Rangarajan (Raghu) Raghuram	53	Executive Vice President, Software-Defined Data Center Division
S. Dawn Smith	52	Senior Vice President, Chief Legal Officer, Chief Compliance Officer and Secretary

Patrick P. Gelsinger has been the Chief Executive Officer and a Director of VMware since September 1, 2012. Prior to joining VMware, he served as President and Chief Operating Officer, EMC Information Infrastructure Products at EMC, VMware’s parent company and controlling stockholder, from September 2009 to August 2012. Mr. Gelsinger joined EMC from Intel Corporation, a designer and manufacturer of advanced integrated digital technology platforms, where he was Senior Vice President and Co-General Manager of Intel Corporation’s Digital Enterprise Group from 2005 to September 2009 and served as

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Intel’s Senior Vice President, Chief Technology Officer from 2002 to 2005. Prior to this, Mr. Gelsinger led Intel’s Desktop Products Group.

Carl M. Eschenbach has served as President and Chief Operating Officer of VMware since December 2012. He had previously been appointed Co-President and Chief Operating Officer in April 2012. Mr. Eschenbach had previously served as VMware’s Co-President, Customer Operations from January 2011 to April 2012 and as VMware’s Executive Vice President of Worldwide Field Operations from May 2005 to January 2011. Prior to joining VMware in 2002, he was Vice President of North America Sales at Inktomi from 2000 to 2002. He also held various sales management positions with 3Com Corporation, Lucent Technologies Inc. and EMC. Mr. Eschenbach currently serves on the board of Palo Alto Networks.

Jonathan C. Chadwick has served as VMware’s Chief Financial Officer, Chief Operating Officer and Executive Vice President since August 2014. Mr. Chadwick joined VMware as its Chief Financial Officer and Executive Vice President on November 2012. Previously, Mr. Chadwick had been Chief Financial Officer of Skype, a provider of Internet-based voice communication, since March 2011, and a Corporate Vice President of Microsoft Corporation since its acquisition of Skype in October 2011. Mr. Chadwick joined Skype from McAfee, an antivirus software and computer security company, where he was the Executive Vice President and Chief Financial Officer from June 2010 until February 2011, when McAfee was acquired by Intel Corporation. From 1997 to 2010, Mr. Chadwick held various finance roles at Cisco Systems, a networking equipment company. At Cisco, Mr. Chadwick served as Senior Vice President, CFO - Global Customer Markets from July 2009 to June 2010, Senior Vice President, Corporate Controller and Principal Accounting Officer from June 2007 until July 2009, Vice President, Corporate Controller and Principal Accounting Officer from September 2006 to June 2007 and Vice President, Corporate Finance & Planning from February 2001 to September 2006. Mr. Chadwick currently serves on the board of F5 Networks, Inc. On January 20, 2016, Mr. Chadwick resigned from his position as VMware's Chief Financial Officer, Chief Operating Officer and Executive Vice President, effective as of March 1, 2016. Mr. Chadwick will stay with VMware in a transitional role until April 1, 2016.

Sanjay Poonen has served as VMware’s Executive Vice President and General Manager, End-User Computing since August 2013. Prior to joining VMware, he spent more than seven years at SAP AG, serving as President and Corporate Officer of Platform Solutions and the Mobile Division from April 2012 until July 2013, prior to that as President of Global Solutions from November 2010 to March 2012, as Executive Vice President of Performance Optimization Apps from June 2008 to September 2009 and Senior Vice President of Analytics from April 2006 to May 2008. Mr. Poonen’s over 20 years of technology industry experience also included executive-level positions with Symantec and Veritas, and product management and engineering positions with Alphablox, Apple, Inc. and Microsoft Corporation.

Rangarajan (Raghu) Raghuram has served as VMware’s Executive Vice President, Software-Define Data Center Division since April 2012. Mr. Raghuram joined VMware in 2003 and has held multiple product management and marketing roles. Mr. Raghuram served as Senior Vice President and General Manager, Cloud Infrastructure and Management, Virtualization and Cloud Platforms, and Enterprise Products, from December 2009 through March 2012. Mr. Raghuram previously served as Vice President of VMware’s Server Business Unit and of Product and Solutions Marketing from September 2003 through December 2009. Prior to VMware, Mr. Raghuram held product management and marketing roles at Netscape and Bang Networks.

S. Dawn Smith has served as VMware’s Senior Vice President, Chief Legal Officer, Chief Compliance Officer and Secretary at VMware since December 2015. She joined VMware as Senior Vice President, General Counsel and Secretary in September 2009 and she was also appointed as Chief Compliance Officer in August 2010. Prior to joining VMware, Ms. Smith was a partner at Morrison & Foerster LLP, a law firm. Prior to joining Morrison & Foerster LLP, she was an attorney at Wilson Sonsini Goodrich & Rosati P.C.

On January 26, 2016, we announced the appointment of Zane Rowe, age 45, to serve as VMware's Chief Financial Officer and Executive Vice President, effective March 1, 2016. Mr. Rowe is currently Executive Vice President and Chief Financial Officer of EMC and has served in that position since October 2014. Prior to joining EMC, Mr. Rowe was Vice President of North American Sales of Apple Inc., a technology company that designs, develops, and sells consumer electronics, computer software, online services, and personal computers, from May 2012 until May 2014.

He was Executive Vice President and Chief Financial Officer of United Continental Holdings, Inc., an airline holdings company, from October 2010 until April 2012 and was Executive Vice President and Chief Financial Officer of Continental Airlines from August 2008 to September 2010. Mr. Rowe joined Continental in 1993.

ITEM 1A. RISK FACTORS

The risk factors that appear below could materially affect our business, financial condition and operating results. The risks and uncertainties described below are not the only risks and uncertainties facing us. Our business is also subject to general risks and uncertainties that affect many other companies. Specific risk factors related to our status as a controlled subsidiary of EMC Corporation (“EMC”), including, among other things, Dell’s proposed acquisition of EMC (the “Dell Acquisition”), overlapping business opportunities, EMC's ability to control certain transactions and resource allocations and related persons transactions with EMC and its other affiliated companies, are set forth below under the heading "Risks Related to Our Relationship with EMC."

Risks Related to Our Business

Our success depends increasingly on customer acceptance of our emerging products and services.

Our products and services are primarily based on server virtualization and related compute technologies used for virtualizing on-premise data center servers, which form the foundation for private cloud computing. As the market for server virtualization continues to mature, sales of our vSphere hypervisor product have begun to decline, and we are increasingly directing our product development and marketing efforts toward products and services that enable businesses to utilize virtualization as the foundation for private, public and hybrid cloud-based computing and mobile computing, including our vSphere-based software-defined data center ("SDDC") products such as our management and automation and network virtualization ("NSX") offerings, our Horizon client virtualization offerings, our AirWatch mobile device management offerings and our Virtual SAN ("vSAN") storage virtualization offerings. We have also been introducing software-as-a-service ("SaaS") versions of our on-premises products, including our vRealize and Horizon Suite and certain AirWatch offerings, and are working to extend our SDDC and NSX offerings into the public cloud. These initiatives present new and difficult technological and compliance challenges, and significant investments will be required to develop or acquire solutions to address those challenges. Our success depends on our current and future customers perceiving technological and operational benefits and cost savings associated with adopting our private and hybrid cloud solutions and our client virtualization and mobile device management solutions. As the market for our server virtualization products continues to mature, and the scale of our business has increased, our rate of revenue growth increasingly depends upon the success of our newer product and service offerings. To the extent that our emerging products and services are adopted more slowly than revenue growth in our established server virtualization offerings declines, our revenue growth rates may slow materially or our revenue may decline substantially and our operating results could be materially adversely affected.

A significant decrease in demand for our server virtualization products would adversely affect our operating results.

The large majority of our revenues is derived, and will for the foreseeable future continue to be derived, from our server virtualization products. As more and more businesses achieve high levels of virtualization in their data centers, the market for our VMware vSphere product has matured. Additionally, as businesses increasingly utilize public cloud and SaaS-based offerings, they are building more of their new compute workloads off-premises and may also shift some of their existing workloads to public cloud providers, thereby limiting growth, and potentially reducing, the market for on-premises deployments of VMware vSphere. Although sales of VMware vSphere have declined as a portion of our overall business, and we expect this trend to continue, VMware vSphere remains key to our future growth, as it serves as the foundation for our newer SDDC and network virtualization offerings. Although we are developing products to extend our vSphere-based SDDC offerings to the public cloud due to our product concentration, a significant decrease in demand for our server virtualization products would adversely affect our operating results.

We face intense competition that could adversely affect our operating results.

The virtualization, cloud computing, end-user computing and software-defined data center industries are inter-related and rapidly evolving, and we face intense competition across all the markets for our products and services. Many of our current or potential competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, technical, sales, marketing and other resources than we do.

We face competition from, among others:

Providers of public cloud infrastructure and SaaS-based offerings. As businesses increasingly utilize public cloud and SaaS-based offerings, they are building more of their new compute workloads off-premises and may also shift some of their existing workloads. As a result, the demand for on-premises IT resources is expected to slow, and our products and services will need to increasingly compete for customers' IT workloads with off-premises public cloud and SaaS-based offerings. If we fail to develop products and services that address evolving customer requirements and that complement and or compete with off-premises compute resources offered by competitors, the demand for VMware's virtualization products and services may decline, and we could experience lower growth. Additionally, vCloud Air Network offerings from our partners and certain vCloud Air offerings may compete directly with

infrastructure-as-a service (“IaaS”) offerings from various public cloud providers such as Amazon and Microsoft.
Large, diversified enterprise software and hardware companies. These competitors supply a wide variety of products and services to, and have well-established relationships with, our current and prospective end users. For example, small to medium sized businesses and companies in emerging markets that are evaluating the adoption of virtualization-based technologies and solutions may be inclined to consider Microsoft solutions because of their existing use of Windows and Office products. Some of these competitors have in the past and may in the future take advantage of their existing relationships to engage in business practices that make our products and services less attractive to our end users. Other competitors have limited or denied support

for their applications running in VMware virtualization environments. In addition, these competitors could integrate competitive capabilities into their existing products and services and make them available without additional charge. For example, Oracle provides free server virtualization software intended to support Oracle and non-Oracle applications, and Microsoft offers its own server virtualization software packaged with its Windows Server product and offers built-in virtualization in the client version of Windows. As a result, existing and prospective VMware customers may elect to use products that are perceived to be “free” or “very low cost” instead of purchasing VMware products and services for certain applications where they do not believe that more advanced and robust capabilities are required.

Companies offering competing platforms based on open source technologies. Open source technologies for virtualization, containerization and cloud platforms such as Xen, KVM, Docker, Rocket and OpenStack provide significant pricing competition and enable competing vendors to leverage these open source technologies to compete directly with our SDDC initiative. Enterprises and service providers have shown significant interest in building their own clouds based on open source projects such as OpenStack, and other companies have indicated their intention to expand offerings of virtual management and cloud computing solutions as well. Additionally, a number of enterprise IT hardware vendors have released solutions based on OpenStack including HP, IBM and Cisco.

Other industry alliances. Many of our competitors have entered into or extended partnerships or other strategic relationships to offer more comprehensive virtualization and cloud computing solutions than they individually had offered. We expect these trends to continue as companies attempt to strengthen or maintain their positions in the evolving virtualization infrastructure and enterprise IT solutions industry. These alliances may result in more compelling product and service offerings than we offer.

Our partners and members of our developer and technology partner ecosystem. We face competition from our partners. For example, third parties currently selling our products and services could build and market their own competing products and services or market competing products and services of other vendors. Additionally, as formerly distinct sectors of enterprise IT such as software-based virtualization and hardware-based server, networking and storage solutions converge, we also increasingly compete with companies who are members of our developer and technology partner ecosystem. Consequently, we may find it more difficult to continue to work together productively on other projects, and the advantages we derive from our ecosystem could diminish.

This competition could result in increased pricing pressure and sales and marketing expenses, thereby materially reducing our operating margins, and could also prevent our new products and services from gaining market acceptance, thereby harming our ability to increase, or causing us to lose, market share.

The loss of key management personnel could harm our business.

We depend on the continued services of key management personnel. We generally do not have employment or non-compete agreements with our employees, and, therefore, they could terminate their employment with us at any time without penalty and could pursue employment opportunities with any of our competitors. In addition, we do not maintain any key-person life insurance policies. The loss of key management personnel could harm our business.

Competition for our target employees is intense and costly, and we may not be able to attract and retain highly skilled employees.

To execute on our strategy, we must continue to attract and retain highly qualified personnel. Competition for these personnel is intense, especially for senior sales executives and engineers with significant experience designing and developing software and cloud offerings. We may not be successful in attracting and retaining qualified personnel. We have in the past experienced, and we expect to continue to experience in the future, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we have. Research and development personnel are also aggressively recruited by startup and emerging growth companies, which are especially active in many of the technical areas and geographic regions in which we conduct product and service development. Competition for our key personnel results in increased costs in the form of cash and stock-based compensation and can have a dilutive impact on our stock. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could suffer.

Adverse economic conditions may harm our business.

Our business depends on the overall demand for information technology and on the economic health of our current and prospective customers. The purchase of our products and services is often discretionary and may involve a significant commitment of capital and other resources. Weak economic conditions or significant uncertainty regarding the stability of financial markets could adversely impact our business, financial condition and operating results in a number of ways, including by lengthening sales cycles, affecting the size of enterprise agreements (“EAs”) that customers will commit to, reducing the level of our non-EA transactional sales, lowering prices for our products and services, reducing unit sales and reducing the rate of adoption of our products and services by new customers and the willingness of current customers to purchase upgrades to our existing products and services. For example, a recurrence of the sovereign debt crisis in Europe or that region's failure to recover from recession would threaten to suppress demand and our customers' access to credit in that region, which is an important market for our products and services. In addition, recent economic instability in Brazil, China and Russia has adversely affected our operating results in these countries, and our operating results may be further adversely affected if this economic instability continues or spreads to neighboring markets. In response to sustained economic uncertainty, many national and local governments that are current or prospective customers for our products and services, including the U.S. federal government, have made, or threatened to make, significant spending cutbacks which could reduce the amount of government spending on IT and the potential demand for our products and services from the government sector.

Regional economic uncertainty can also result in general and ongoing tightening in the credit markets, lower levels of liquidity, increases in the rates of default and bankruptcy and significant volatility in the credit, equity and fixed income markets. As a result, current or potential customers may be unable to fund software purchases, which could cause them to delay, decrease or cancel purchases of our products and services. Even if customers are willing to purchase our products and services, if they do not meet our credit requirements, we may not be able to record accounts receivable or unearned revenues or recognize revenues from these customers until we receive payment, which could adversely affect the amount of revenues we are able to recognize and our cash flows in a particular period.

We may not be able to respond to rapid technological changes with new solutions and services offerings.

The virtualization, cloud computing, end-user computing and SDDC industries are characterized by rapid technological change, changing customer needs, frequent new software product introductions and evolving industry standards. The introduction of third-party solutions embodying new technologies and the emergence of new industry standards could make our existing and future software solutions obsolete and unmarketable. Cloud computing has proven to be a disruptive technology that is altering the way that businesses consume, manage and provide physical IT resources, applications, data and IT services. We may not be able to establish or sustain our thought leadership in the cloud computing and enterprise software fields, and our customers may not view our products and services as innovative and best-of-breed, which could result in a reduction in market share and our inability to command a pricing premium over competitor products and services. We may not be able to develop updated products and services that keep pace with technological developments and emerging industry standards, that address the increasingly sophisticated needs of our customers or that interoperate with new or updated operating systems and hardware devices.

Our ability to react quickly to new technology trends and customer requirements is negatively impacted by the length of our development cycle for new products and services and product and service enhancements, which has frequently been longer than we originally anticipated. This is due in part to the increasing complexity of our product offerings as we increase their interoperability, introduce them into product suites and maintain their compatibility with multiple IT resources utilized by our customers, which can significantly increase the development time and effort necessary to achieve the interoperability of product suite components while maintaining product quality. If we are unable to evolve our solutions and offerings in time to respond to and remain ahead of new technological developments, our ability to retain or increase market share and revenues in the virtualization, cloud computing, end-user computing and SDDC industries could be materially adversely affected. With respect to our SDDC products, if we fail to introduce compelling new features in future upgrades to our VMware vSphere product line, manage the transition to hybrid cloud platforms, develop new or tightly integrate existing applications for our virtualization technology that address customer requirements for integration, automation and management of their IT systems with public cloud resources, overall demand for products and services based on VMware vSphere may decline.

We are exposed to foreign exchange risks.

Because we conduct business in currencies other than the U.S. dollar but report our operating results in U.S. dollars, we face exposure to fluctuations in currency exchange rates. In 2015, approximately 30% of our sales were invoiced and collected in non-U.S. dollar denominated currencies. The realized gain or loss on foreign currency transactions is dependent upon the types of foreign currency transactions that we enter into, the exchange rates associated these transactions and changes in those rates, the net realized gain or loss on our foreign currency forward contracts, and other factors. Although we hedge a portion of our foreign currency exposure, a significant fluctuation in exchange

rates between the U.S. dollar and foreign currencies may adversely affect our operating results. For example, we experienced a measurable negative impact to our revenues in 2015 due to exchange rate fluctuations, and we expect a further negative impact to 2016 revenues and unearned revenues and cash flows. The further weakening of foreign currency exchange rates against the U.S. dollar would likely result in additional adverse impact on our revenues.
Our operating results may fluctuate significantly.
Our operating results may fluctuate due to a variety of factors, many of which are outside of our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful, and our past results should not be relied upon as an indication of our future performance. In addition, a significant portion of our quarterly sales typically occurs during the last two weeks of the quarter, which generally reflects customer buying patterns for enterprise technology. As a result, our

quarterly operating results are difficult to predict even in the near term. If our revenues or operating results fall below the expectations of investors or securities analysts or below any guidance we may provide to the market, the price of our Class A common stock would likely decline substantially.

Factors that may cause fluctuations in our operating results include, among others, the factors described elsewhere in this risk factors section and the following:

- fluctuations in demand, adoption rates, sales cycles (which have been increasing in length) and pricing levels for our products and services;
- changes in customers' budgets for information technology purchases and in the timing of their purchasing decisions;
- the timing of recognizing revenues in any given quarter, which can be affected by a number of factors, including product announcements, beta programs and product promotions that can cause revenue recognition of certain orders to be deferred until future products to which customers are entitled become available;
- the timing of announcements or releases of new or upgraded products and services by us or by our competitors;
- the timing and size of business realignment plans and restructuring charges;
- our ability to maintain scalable internal systems for reporting, order processing, license fulfillment, product delivery, purchasing, billing and general accounting, among other functions;
- our ability to control costs, including our operating expenses;
- credit risks of our distributors, who account for a significant portion of product revenues and accounts receivable;
- our ability to process sales at the end of quarter;
- seasonal factors such as the end of fiscal period budget expenditures by our customers and the timing of holiday and vacation periods;
- renewal rates and the amounts of the renewals for EAs as original EA terms expire;
- the timing and amount of internally developed software development costs that may be capitalized;
- unplanned events that could affect market perception of the quality or cost-effectiveness of our products and solutions; and
- our ability to accurately predict the degree to which customers will elect to purchase our subscription-based offerings in place of licenses to our on-premises offerings.

Breaches of our cybersecurity systems could seriously harm our business.

We increasingly depend upon our IT systems to conduct virtually all of our business operations, ranging from our internal operations and product development activities to our marketing and sales efforts and communications with our customers and business partners. Unauthorized parties have penetrated our network security and our website in the past and may do so in the future. These cyberattacks threaten to misappropriate our proprietary information, cause interruptions of our IT services and commit fraud. Because the techniques used by unauthorized persons to access or sabotage networks change frequently and may not be recognized until launched against a target, we may be unable to anticipate these tactics. Further, if unauthorized access or sabotage remains undetected for an extended period of time, the effects of such breach could be exacerbated. In addition, sophisticated hardware and operating system software and applications that we produce or procure from third parties may contain defects in design or manufacture, including "bugs" and other problems that could unexpectedly interfere with the operation of our systems and processes. Our exposure to cybersecurity threats and negative consequences of cybersecurity breaches will likely increase as our customers conduct more purchase and service transactions online, and we store increasing amounts of customer data and host or manage parts of customers' businesses in cloud-based IT environments.

We have also outsourced a number of our business functions to third parties, and we rely upon distributors, resellers, system vendors and systems integrators to sell our products and services. Accordingly, if our cybersecurity systems and those of our contractors, partners and vendors fail to protect against breaches, our ability to conduct our business could be damaged in a number of ways, including:

- sensitive data regarding our business, including intellectual property and other proprietary data, could be stolen;
- our electronic communications systems, including email and other methods, could be disrupted, and our ability to conduct our business operations could be seriously damaged until such systems can be restored and secured;
- our ability to process customer orders and electronically deliver products and services could be degraded, and our distribution channels could be disrupted, resulting in delays in revenue recognition;

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- defects and security vulnerabilities could be exploited or introduced into our software products or our hybrid cloud and SaaS offerings, thereby damaging the reputation and perceived reliability and security of our products and services and potentially making the data systems of our customers vulnerable to further data loss and cyber incidents; and
- personally identifiable or confidential data of our customers, employees and business partners could be stolen or lost.

Should any of the above events occur, we could be subject to significant claims for liability from our customers, we could face regulatory actions from governmental agencies, our ability to protect our intellectual property rights could be compromised, our reputation and competitive position could be significantly harmed and we could incur significant costs in order to upgrade our cybersecurity systems and remediate damages. Consequently, our business, financial condition and operating results could be adversely affected.

We operate a global business that exposes us to additional risks.

Our international activities account for a substantial portion of our revenues and profits, and we plan to further expand internationally. In addition, our investment portfolio includes investments in non-U.S. financial instruments and holdings in non-U.S. financial institutions, including European institutions. In addition to the risks described elsewhere in these risk factors, our international operations subject us to a variety of risks, including:

- difficulties in enforcing contracts and collecting accounts receivable and longer payment cycles, especially in emerging markets;
- difficulties in delivering support, training and documentation in certain foreign markets;
- tariffs and trade barriers and other regulatory or contractual limitations on our ability to sell or develop our products and services in certain foreign markets;
- economic or political instability and security concerns in countries that are important to our international sales and operations;
- difficulties in transferring funds from certain countries;
- increased compliance risks, particularly in emerging markets; and
- difficulties in maintaining appropriate controls relating to revenue recognition practices.

For example, recent economic instability in Brazil, China and Russia has adversely affected our operating results in these countries, and our operating results may be further adversely affected if this economic instability continues or spreads to neighboring markets. Additionally, the Chinese government is working to implement new network security standards that will require IT systems being sold into certain key sectors to be certified as “secure and controllable”. As part of that effort, in December 2014, standards were implemented in the banking sector requiring IT companies selling to Chinese banks to submit their software and other technology to intrusive security testing, include indigenous Chinese intellectual property and encryption technology in their software and disclose source code and other proprietary information to the Chinese government. Implementation of these standards was subsequently suspended in light of concerns communicated by banks and other parties. However, in 2015, the government has continued to enact or propose additional laws and regulations to address information and network security. For example, in July 2015, China enacted a State Security Law authorizing the government to implement a system for maintaining the security of networks and information, and it also published a draft cyber security law that proposed various specific information security and network security measures to enhance “cyber sovereignty.” In November 2015, the insurance regulator in China issued draft insurance cyber rules that would require insurance companies to have compliant encryption tools, secure and compliant hardware and software products, and data storage. In December 2015, China enacted an Anti-Terrorism Law that gives local public security and state security authorities the broad discretionary authority to require companies to provide access to their equipment and decryption support in particular cases. Failure to comply with such requests can result in fines and imprisonment. In addition, a broad range of businesses will be required to verify the identities of customers and prohibit the provision of services to customers whose identities are unclear or who refuse to cooperate in the verification process. If we are not able to, or choose not to, comply with these and other information and network security standards that the Chinese government might implement in the future, our business in China may suffer.

Furthermore, if we fail to comply with legal and regulatory requirements covering the foreign activities of U.S. corporations, such as export control requirements and the Foreign Corrupt Practices Act, as well as with local regulatory requirements in non-U.S. jurisdictions, we may be exposed to significant fines and penalties and reputational harm. These risks will increase as we expand our operations in locations with a higher incidence of corruption and fraudulent business practices.

In addition, potential fallout from past disclosures related to the U.S. Internet and communications surveillance and possible efforts to enable increased surveillance could make foreign customers reluctant to purchase products and services from U.S.-based technology companies and impair our growth rate in foreign markets.

Our failure to manage any of these risks successfully could negatively affect our reputation and adversely affect our operating results.

Our current research and development efforts may not produce significant revenues for several years, if at all.

Developing our products and services is expensive. In particular, developing and launching disruptive technologies in new areas, as we are continuing to do with our VMware NSX virtual networking and vSAN virtual storage initiatives, requires significant investments of resources and often entails greater risk than incremental investments in existing products and services. Our investment in research and development may not result in marketable products or services or may result in products and services that generate less revenues than we anticipate. Our research and development expenses were approximately 20% of our total revenues during the year ended December 31, 2015. Our future plans include significant investments in software research and development and related product opportunities. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. However, we may not receive significant revenues from these investments for several years, if at all.

We may not be able to adequately protect our intellectual property rights.

We depend on our ability to protect our proprietary technology. We rely on trade secret, patent, copyright and trademark laws and confidentiality agreements with employees and third parties, all of which offer only limited protection. As such, despite our efforts, the steps we have taken to protect our proprietary rights may not be adequate to prevent misappropriation of our proprietary information or infringement of our intellectual property rights, and our ability to police such misappropriation or infringement is uncertain, particularly in countries outside of the United States. In addition, we rely on confidentiality or license agreements with third parties in connection with their use of our products and technology. There is no guarantee that such parties will abide by the terms of such agreements or that we will be able to adequately enforce our rights, in part because we rely on “click-wrap” and “shrink-wrap” licenses in some instances.

Detecting and protecting against the unauthorized use of our products, technology proprietary rights and intellectual property rights is expensive, difficult and, in some cases, impossible. Litigation is necessary from time to time to enforce or defend our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property, which could result in a substantial loss of our market share.

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

Many of our products and services incorporate so-called “open source” software, and we may incorporate open source software into other products and services in the future. Open source software is generally licensed by its authors or other third parties under open source licenses. Open source licensors generally do not provide warranties or assurance of title or controls on origin of the software, which exposes us to potential liability if the software fails to work or infringes the intellectual property of a third party.

We monitor our use of open source software in an effort to avoid subjecting our products to conditions we do not intend and avoid exposing us to unacceptable financial risk. However, the processes we follow to monitor our use of open source software could fail to achieve their intended result. In addition, although we believe that we have complied with our obligations under the various applicable licenses for open source software that we use, there is little or no legal precedent governing the interpretation of terms in most of these licenses, which increases the risk that a court could interpret the license differently than we do.

From time to time, we receive inquiries or claims from authors or distributors of open source software included in our products regarding our compliance with the conditions of one or more open source licenses. An adverse outcome to a claim could require us to:

- pay significant damages;
- stop distributing our products that contain the open source software;
- revise or modify our product code to remove alleged infringing code;
- release the source code of our proprietary software; or
- take other steps to avoid or remedy an alleged infringement.

In March 2015, a software developer who alleges that software code he wrote is used in a component of our vSphere product filed a lawsuit against us in Germany alleging copyright infringement for failing to comply with the terms of an open source license General Public License v.2 (“GPL v.2”) and seeking an order requiring us to comply with the GPL v.2 or cease distribution of any affected code within Germany. Although we believe that the claims in this lawsuit lack merit and intend to

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vigorously defend the lawsuit, an adverse outcome to this or other claims could have a material adverse impact on our intellectual property rights, our operating results and financial condition.

The evolution of our business requires more complex go-to-market strategies, which involve significant risk.

Our increasing focus on developing and marketing IT management and automation and IaaS (including software-defined networking, vCloud Air, vCloud Air Network and integrated virtual desktop and mobile device) offerings that enable customers to transform their IT systems requires a greater focus on marketing and selling product suites and more holistic solutions, rather than selling on a product-by-product basis. Consequently, we have developed, and must continue to develop, new strategies for marketing and selling our offerings. Additionally, the duration of sales cycles for our offerings has increased as our customers' purchasing decisions become more complex and require additional levels of approval. In addition, marketing and selling new technologies to enterprises requires significant investment of time and resources in order to educate customers on the benefits of our new product offerings. These investments can be costly and the additional effort required to educate both customers and our own sales force can distract from their efforts to sell existing products and services.

Our success depends upon our ability to develop appropriate business and pricing models.

If we cannot adapt our business models to keep pace with industry trends, including the industry-wide transition to cloud-based computing, our revenues could be negatively impacted. Certain of our new product initiatives, such as our vCloud Air and SaaS offerings, have a subscription model. As we increase our adoption of subscription-based pricing models for our products, we may fail to set pricing at levels appropriate to maintain our revenue streams or our customers may choose to deploy products from our competitors that they believe are priced more favorably. In addition, we may fail to accurately predict subscription renewal rates or their impact on operating results, and because revenues from subscriptions are recognized for our services over the term of the subscription, downturns or upturns in sales may not be immediately reflected in our results. Additionally, as customers transition to our hybrid cloud and SaaS products and services, our revenue growth rate may be adversely impacted during the period of transition as we will recognize less revenue up front than we would otherwise recognize as part of the multi-year license arrangements through which we typically sell our established offerings. Finally, as we offer more services that depend on converting users of free services to users of premium services and converting purchasers of our on-premises products to our SaaS offerings, and as such services grow in size, our ability to maintain or improve and to predict conversion rates will become more important.

Our products and services are highly technical and may contain errors, defects or security vulnerabilities.

Our products and services are highly technical and complex and, when deployed, have contained and may contain errors, defects or security vulnerabilities. Some errors in our products or services may only be discovered after a product or service has been installed and used by customers. Undiscovered vulnerabilities in our products or services could expose our customers to hackers or other unscrupulous third parties who develop and deploy viruses, worms and other malicious software programs that could attack our products or services. In the past, VMware has been made aware of public postings by hackers of portions of our source code. It is possible that the released source code could expose unknown security vulnerabilities in our products and services that could be exploited by hackers or others. We may also inherit unknown security vulnerabilities when we integrate the products or services of other companies into VMware products or services. Actual or perceived errors, defects or security vulnerabilities in our products or services could harm our reputation and lead some customers to return products or services, reduce or delay future purchases or use competitive products or services.

Failure to effectively manage our product and service lifecycles could harm our business.

As part of the natural lifecycle of our products and services, we periodically inform customers that products or services will be reaching their end of life or end of availability and will no longer be supported or receive updates and security patches. To the extent these products or services remain subject to a service contract with the customer, we offer to transition the customer to alternative products or services. Failure to effectively manage our product and service lifecycles could lead to customer dissatisfaction and contractual liabilities, which could adversely affect our business and operating results.

Our success depends on the interoperability of our products and services with those of other companies.

The success of our products depends upon the cooperation of hardware and software vendors to ensure interoperability with our products and offer compatible products and services to end users. In addition, we intend to extend the functionality of various products to work with native public cloud applications, which may require the cooperation of public cloud vendors. To the extent that hardware, software and public cloud vendors perceive that their products and services compete with ours or those of our controlling stockholder, EMC or Dell Inc. (“Dell”), which has signed an agreement to acquire EMC, they may have an incentive to withhold their cooperation, decline to share access or sell to us their proprietary APIs, protocols or formats, or engage in practices to actively limit the functionality, compatibility and certification of our products. In addition, vendors may fail to certify or support or continue to certify or support our products for their systems. If any of the foregoing occurs, our product development efforts may be delayed or foreclosed and it may be difficult and more costly for us to achieve

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functionality and service levels that would make our services attractive to end users, any of which could negatively impact our business and operating results.

Disruptions to our distribution channels could harm our business.

Our future success is highly dependent on our relationships with distributors, resellers, system vendors and systems integrators, which account for a significant portion of our revenue. Recruiting and retaining qualified channel partners and training them in the use of our technology and product offerings requires significant time and resources. Our failure to maintain good relationships with channel partners would likely lead to a loss of end users of our products and services, which would adversely affect our revenue. We generally do not have long-term contracts or minimum purchase commitments with our distributors, resellers, system vendors and systems integrators, and our contracts with these channel partners do not prohibit them from offering products or services that compete with ours.

Three of our distributors each accounted for 10% or more of our consolidated revenues during 2015. Although we believe that we have in place, or would have in place by the date of any such termination, agreements with replacement distributors sufficient to maintain our revenues from distribution, if we were to lose the distribution services of a significant distributor, such loss could have a negative impact on our operating results until such time as we arrange to replace these distribution services with the services of existing or new distributors.

Our vCloud Air and SaaS offerings rely on third-party providers for data center space and colocation services.

Our vCloud Air and SaaS offerings rely upon third-party providers to supply data center space, equipment maintenance and other colocation services. Although we have entered into various agreements for the lease of data center space, equipment maintenance and other services, third parties could fail to live up to the contractual obligations under those agreements. The failure of a third-party provider to prevent service disruptions, data losses or security breaches may require us to issue credits or refunds or indemnify or otherwise be liable to customers or third parties for damages that may occur. Additionally, if these third-party providers fail to deliver on their obligations, our reputation could be damaged, our customers could lose confidence in us and our ability to maintain and expand our vCloud Air and SaaS offerings would be impaired.

Joint ventures may not yield expected benefits and outcomes.

As we expand our offerings into new technologies such as the public cloud and seek more efficient methods of marketing our products and services in regions where local partners can operate more easily, we sometimes rely upon joint ventures with established providers of IT products and services in particular regions, for example as service providers. Joint ventures are inherently risky and the requirements for close ongoing cooperation and commitments from the joint venture partners and agreement to devote adequate resources often present significant challenges. Joint ventures can also be difficult to manage, given the potentially different interests of joint venture partners. Accordingly, there can be no guarantee that our joint ventures will achieve their intended objectives. If we are unable to continue our strategic alignment with joint venture partners or obtain the cooperation and commitments we are relying upon, our ability to successfully expand our offerings globally and in certain regions may diminish.

SaaS offerings, which involve various risks, constitute an important part of our business.

As we continue to develop and offer SaaS versions of our products, we will need to continue to evolve our processes to meet a number of regulatory, intellectual property, contractual and service compliance challenges. These challenges include compliance with licenses for open source and third party software embedded in our SaaS offerings, maintaining compliance with export control and privacy regulations, including HIPAA, protecting our services from external threats, maintaining the continuous service levels and data security expected by our customers, preventing the inappropriate use of our services and adapting our go-to-market efforts.

We are involved in litigation and regulatory inquiries and proceedings that could negatively affect us.

From time to time, we are involved in various legal, administrative and regulatory proceedings, claims, demands and investigations relating to our business, which may include claims with respect to commercial, product liability, intellectual property, breach of contract, employment, class action, whistleblower and other matters. In the ordinary course of business, we also receive inquiries from and have discussions with government entities regarding the compliance of our contracting and sales practices with laws and regulations.

We have been, and expect to continue to be, subject to intellectual property infringement claims, including claims by entities that do not have operating businesses of their own and therefore limit our ability to seek counterclaims for damages and injunctive relief. In addition to monetary judgments, a judgment could also include an injunction or other court order that could prevent us from offering our products. In addition, we might be required to seek a license for the use of such intellectual property, which may not be available on commercially reasonable terms or at all. Alternatively, we may be required to develop non-infringing technology, which could require significant effort and expense and may ultimately not be successful. Third parties may also assert infringement claims against our customers and channel partners, which could require us to initiate or

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defend potentially protracted and costly litigation on their behalf, regardless of the merits of these claims, because we generally indemnify our customers and channel partners from claims of infringement of proprietary rights of third parties in connection with the use of our products. These matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Allegations made in the course of regulatory or legal proceedings may also harm our reputation, regardless of the merit of such claims. Furthermore, because litigation and the outcome of regulatory proceedings are inherently unpredictable, our business, financial condition or operating results could be materially affected by an unfavorable resolution of one or more of these proceedings, claims, demands or investigations.

Refer to Note L to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for a description of certain claims and litigations.

Improper disclosure of personal data could result in liability and harm our reputation.

Our business is subject to a wide variety of federal, state and international laws and regulations regarding privacy and protection of personal data. We collect contact and other personal or identifying information from our customers, and our customers increasingly use our services to store and process personal information and other regulated data, including protected health information subject to stringent data privacy laws. In the course of providing employee compensation and benefits, we also maintain personal data of our employees and share that information with third party payroll and benefits providers. Our hybrid cloud computing service offerings, pursuant to which we offer hybrid cloud services and enable third-party service providers to offer hybrid cloud services built on our technology, expose us to particularly significant risks. The application of U.S. and international data privacy laws to cloud computing vendors is evolving and uncertain, and our existing contractual provisions may prove to be inadequate to protect us from claims for data loss or regulatory noncompliance made against cloud computing providers who we may partner with. Any failure by us or our business partners to comply with posted privacy policies, other federal, state or international privacy-related or data protection laws and regulations, or the privacy commitments contained in contracts could result in proceedings against us by governmental entities or others and significant fines, which could have a material adverse effect on our business and operating results and harm our reputation. Further, any systems failure or compromise of our security that results in the release of our customers' and employees' data could (i) subject us to substantial damage claims, (ii) expose us to costly regulatory remediation and (iii) harm our reputation and brand.

If we fail to comply with our customer contracts or government contracting regulations, our business could be adversely affected.

Contracts with many of our customers include unique and specialized performance requirements. In particular, our contracts with federal, state, local and non-U.S. governmental customers and our arrangements with distributors and resellers who may sell directly to governmental customers are subject to various procurement regulations, contract provisions and other requirements relating to their formation, administration and performance. Any failure by us to comply with provisions in our customer contracts or any violation of government contracting regulations could result in the imposition of various civil and criminal penalties, which may include termination of contracts, forfeiture of profits, suspension of payments and, in the case of our government contracts, fines and suspension from future government contracting. Further, any negative publicity related to our customer contracts or any proceedings surrounding them, regardless of its accuracy, may damage our business and affect our ability to compete for new contracts. In the ordinary course of business, we also receive inquiries from and have ongoing discussions with government entities regarding the compliance of our contracting and sales practices with laws and regulations. In June 2015, we reached an agreement with the Department of Justice ("DOJ") and the General Services Administration ("GSA") to pay $76 million to resolve allegations that our government sales practices between 2006 and 2013 had violated the federal False Claims Act. As set forth in the settlement agreement, VMware denied the allegations and did not admit liability. A failure in the future to comply with federal and state governmental contracting requirements could result in the termination of customer contracts, our suspension from government work, the imposition of fines or other government sanctions or an inability to compete for new contracts, any of which could adversely affect our business, operating results or financial condition.

Acquisitions could harm our business and operating results.

We have acquired in the past, and plan to acquire in the future, other businesses, products or technologies. Acquisitions involve significant risks and uncertainties, which include:

- disrupting our ongoing operations, diverting management from day-to-day responsibilities, increasing our expenses, and adversely impacting our business, financial condition and operating results;
- failure of the acquired business to further our business strategy;
- uncertainties in achieving the expected benefits of an acquisition, including enhanced revenues, technology, human resources, cost savings, operating efficiencies and other synergies;

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- reducing cash available for operations, stock repurchase programs and other uses and resulting in potentially dilutive issuances of equity securities or the incurrence of debt;
- incurring amortization expense related to identifiable intangible assets acquired that could impact our operating results;
- difficulty integrating the operations, systems, technologies, products and personnel of the acquired businesses effectively;
- difficulty achieving expected business results due to a lack of experience in new markets, products or technologies or the initial dependence on unfamiliar distribution partners or vendors;
- retaining and motivating key personnel from acquired companies;
- assuming the liabilities of the acquired business, including acquired litigation-related liabilities and regulatory compliance issues, and potential litigation or regulatory action arising from a proposed or completed acquisition;
- maintaining good relationships with customers or business partners of the acquired business or our own customers as a result of any integration of operations;
- unidentified issues not discovered during the diligence process, including issues with the acquired business's intellectual property, product quality, security, privacy practices, accounting practices, regulatory compliance or legal contingencies;
- maintaining or establishing acceptable standards, controls, procedures or policies with respect to the acquired business;
- risks relating to the challenges and costs of closing a transaction; and
- the need to later divest acquired assets at a loss if the acquisition does not meet our expectations.

If our goodwill or amortizable intangible assets become impaired, we may be required to record a significant charge to earnings.

We may not realize all the economic benefit from our acquisitions of other companies, which could result in an impairment of goodwill or intangibles. As of December 31, 2015, goodwill and amortizable intangible assets were $3,993 million and $616 million, respectively. We review our goodwill and amortizable intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. We test goodwill for impairment at least annually. Factors that may lead to impairment include a substantial decline in stock price and market capitalization or cash flows, reduced future cash flow estimates related to the assets and slower growth rates in our industry. We may be required to record a significant charge in our financial statements during the period in which any impairment of our goodwill or amortizable intangible assets is determined, which would negatively impact our operating results.

Problems with our information systems could interfere with our business and could adversely impact our operations.

We rely on our information systems and those of third parties for processing customer orders, delivering products, providing services and support to our customers, billing and tracking our customers, fulfilling contractual obligations and otherwise running our business. If our systems fail, our disaster and data recovery planning and capacity may prove insufficient to enable timely recovery of important functions and business records. Any disruption in our information systems and those of the third parties upon whom we rely could have a significant impact on our business. In addition, we continuously work to enhance our information systems. For example, we are in the midst of a multi-year project to replace our enterprise resource planning software. The implementation of these types of enhancements is frequently disruptive to the underlying business of an enterprise, which may especially be the case for us due to the size and complexity of our business. Implementation may disrupt internal controls and business processes and could introduce unintended vulnerability to error. Additionally, our information systems may not support new business models and initiatives and significant investments could be required in order to upgrade them. Any disruptions relating to our systems enhancements, particularly any disruptions impacting our operations during the implementation period, could adversely affect our business in a number of respects. Additionally, delays in adapting our information systems to address new business models could limit the success or result in the failure of such initiatives and impair the effectiveness of our internal controls. Even if we do not encounter these adverse effects, the implementation of these enhancements may be much more costly than we anticipated. If we are unable to successfully implement the information systems enhancements as planned, our operating results could be negatively

impacted.
We may have exposure to additional tax liabilities, and our operating results may be adversely impacted by higher than expected tax rates.
As a multinational corporation, we are subject to income taxes as well as non-income based taxes, such as payroll, sales, use, value-added, net worth, property and goods and services taxes, in both the United States and various foreign jurisdictions.

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Our domestic and international tax liabilities are subject to the allocation of revenues and expenses in different jurisdictions and the timing of recognizing revenues and expenses. Significant judgment is required in determining our worldwide provision for income taxes and other tax liabilities. We are subject to income and indirect tax examinations. The Internal Revenue Service (the “IRS”) is currently auditing the EMC consolidated group's federal tax returns for tax years 2009 through 2011. While we believe we have complied with all applicable income tax laws, a governing tax authority could have a different interpretation of the law and assess us with additional taxes. Any assessment of additional taxes could materially affect our financial condition and operating results.

Our future effective tax rate may be affected by such factors as changes in tax laws, changing interpretation of existing laws or regulations, the impact of accounting for stock-based compensation, the impact of accounting for business combinations, changes in the composition of global earnings, the expiration of statute of limitations, settlements of audits, changes in our international organization and changes in overall levels of income before tax.

In addition, in the ordinary course of our global business, there are many intercompany transactions, including the transfer of intellectual property, where the ultimate tax determination is uncertain. Although we believe that our tax estimates are reasonable, the final determination of tax audits or tax disputes may differ from what is reflected in our historical income tax provisions and accruals.

Our rate of taxation in foreign jurisdictions is lower than our U.S. tax rate. Our international income is primarily earned by our subsidiaries organized in Ireland, and, as such, our effective tax rate can be impacted by the composition of our earnings in the U.S. and foreign jurisdictions. During October 2014, Ireland announced revisions to its tax regulations that will require foreign earnings of our subsidiaries organized in Ireland to be taxed at higher rates. We will be impacted by the changes in tax regulations in Ireland beginning in 2021, and we may proactively make structural changes that impact our tax rates prior to that date. The Organisation for Economic Cooperation and Development issued guidelines and proposals during October 2015 that also may change how our tax obligations are determined in many of the countries in which we do business. These potential changes could also adversely affect our effective tax rate.

Catastrophic events or geo-political conditions could disrupt our business.

Our corporate headquarters are located in the San Francisco Bay Area, a region known for seismic activity. A significant natural disaster, such as an earthquake, fire, flood or other act of God, could have a material adverse impact on our business and operating results. Abrupt political change, terrorist activity and armed conflict pose a risk of general economic disruption in affected countries, and disease pandemics could temporarily sideline a substantial part of our or our customers’ workforce at any particular time, any of which could disrupt our business. Furthermore, some of our new product initiatives and business functions are hosted and carried out by third parties that may be vulnerable to disruptions of these sorts, many of which may be beyond our control. Unanticipated disruptions in services provided through localized physical infrastructure, such as utility or telecommunication outages, can curtail the functioning of local offices as well as critical components of our information systems, and adversely affect our ability to process orders, provide services, respond to customer requests and maintain local and global business continuity. To the extent that such disruptions result in delays or cancellations of customer orders, or the deployment or availability of our products and services, our revenues would be adversely affected. Additionally, any such catastrophic event could cause us to incur significant costs to repair damages to our facilities, equipment and infrastructure.

Changes in accounting principles and guidance could result in unfavorable accounting charges or effects.

We prepare our consolidated financial statements in accordance with accounting principles generally accepted in the United States. These principles are subject to interpretation by the SEC and various bodies formed to create and interpret appropriate accounting principles and guidance. A change in these principles or guidance, or in their interpretations, may have a significant effect on our reported results, as well as our processes and related controls, and may retroactively affect previously reported results. For example, during May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (Topic 606). The updated standard is effective for us in the first quarter of 2018 and permits the use of either the retrospective or cumulative effect transition method. Early adoption is permitted, but not earlier than the first quarter of 2017. We have not selected a transition method and are currently evaluating the effect that ASU

2014-09 will have on our consolidated financial statements and related disclosures.

Risks Related to Our Relationship with EMC

Our stock price has declined significantly since the announcement of the Dell Acquisition, and its continuing pendency and potential completion may adversely impact our business and stock price in the future.

On October 12, 2015, EMC and Dell announced the Dell Acquisition, pursuant to which Dell’s parent company, Denali, would acquire EMC while maintaining VMware as an independent publicly traded company and issuing a tracking stock, Class V common stock, intended to reflect VMware's economic performance as partial consideration to the EMC shareholders. Upon issuance, the Class V common stock is expected to track the performance of an approximately 53% economic interest in the VMware business.

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Our stock price has declined significantly following the announcement of the Dell Acquisition and following subsequent announcements of our financial results and our guidance for future operating results. The period since the announcement of the Dell Acquisition has also coincided with a general downturn in share prices of technology companies. A number of factors relating to the Dell Acquisition could adversely affect our business or our stock price during the pendency or following the closing of the Dell Acquisition, including:

- If the Dell Acquisition is completed, Denali will be able to control matters requiring our stockholders' approval, including the election of a majority of our directors and the other matters over which EMC currently has control, as described in the risk factors below.
- Following the closing of the acquisition, Denali could implement changes to our business, including changing our commercial relationship with EMC or taking other corporate actions that our other stockholders may not view as beneficial.
- We have arrangements with a number of companies that compete with Dell, and the pendency or completion of the Dell Acquisition could adversely affect our relationship with these companies or other customers, suppliers and partners.
- During the pendency of the Dell Acquisition, Denali has a right of consent to matters requiring EMC's approval under our certificate of incorporation, including acquisitions or investments in excess of $100 million, and Denali may choose not to consent to matters that our board of directors and EMC believe are in the best interests of VMware.
- We anticipate certain synergies and benefits from the Dell Acquisition that may not be realized.
- The Class V common stock to be issued by Denali, while not a VMware issued security, would increase the supply of publicly traded securities that track VMware's economic performance and could create the perception that the Class V common stock dilutes the holdings of our public stockholders, both of which could put downward pressure on our stock price.
- Following the closing of the Dell Acquisition, Denali will be highly leveraged and may be required to commit a substantial portion of its cash flows to servicing its indebtedness. While Denali has publicly stated that it plans to leave VMware free to use its cash to invest in the VMware business, Denali's significant debt could create the perception that Denali may exercise its control over us to limit our growth in favor of its other businesses or cause us to transfer cash to Denali. In addition, if Denali defaults, or appears in danger of defaulting, on its indebtedness, the trading price of the Class V common stock issued by Denali would be adversely affected, which could negatively impact the price of our Class A common stock, and uncertainty as to the impact of such a default on VMware could disrupt our business.
- Some of our products compete directly with products sold or distributed by Dell, which could result in reduced sales during the pendency or following the closing of the Dell Acquisition.
- The pendency of the Dell Acquisition creates uncertainty for our employees, which could make it difficult to attract and retain employees.
- The pendency of the Dell Acquisition could distract management's focus from executing on other strategic initiatives.
- With respect to our stock repurchase program, we are currently subject to a number of legal and regulatory constraints resulting from Dell's proposed acquisition of EMC, which impacts the timing and ability to execute repurchases of our shares and may continue to curtail our ability to repurchase our shares throughout the pendency of the Dell Acquisition.
- The Dell Acquisition creates potential litigation risk. Various lawsuits have been filed against EMC and others in connection with the Dell Acquisition, including one in which the Company and our directors are named as defendants. It is possible that we or our Company's directors may be named in other lawsuits.

Holders of our Class A common stock have limited ability to influence matters requiring stockholder approval.

As of December 31, 2015, EMC owned 43,025,000 shares of our Class A common stock and all 300,000,000 shares of our Class B common stock, representing 81.3% of the total outstanding shares of common stock or 97.5% of the voting power of outstanding common stock. Through its ownership of the Class B common stock, which is generally entitled to 10 votes per share, EMC controls the vote to elect all of our directors and to approve or disapprove all other matters submitted to a stockholder vote.

Prior to a distribution by EMC to its stockholders under Section 355 of the Internal Revenue Code of 1986, as amended (a “355 Distribution”), shares of Class B common stock transferred to any party other than a successor-in-interest (such as Denali, if the Dell Acquisition is completed) or a subsidiary of EMC automatically convert into Class A common stock. EMC’s voting

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control over VMware will continue so long as the shares of Class B common stock it owns continue to represent at least 20% of our outstanding stock. If EMC's ownership falls below 20% of the outstanding shares of our common stock, all outstanding shares of Class B common stock will automatically convert to Class A common stock. If EMC effects a 355 Distribution at a time when it holds shares of Class B common stock, its shareholders will receive Class B common stock. These shares will remain entitled to 10 votes per share, holders of these shares will remain entitled to elect 80% of the total number of directors on our board of directors and the holders of our Class A common stock will continue to have limited ability to influence matters requiring stockholder approval and have limited ability to elect members of our board of directors. Following a 355 distribution, shares of Class B common stock may convert to Class A common stock if such conversion is approved by VMware stockholders after the 355 distribution and we have obtained a private letter ruling from the Internal Revenue Service. In January 2014, the IRS announced in Revenue Procedure 2014-3 that, generally, it would no longer issue private letter rulings on 355 distributions.

EMC has the ability to prevent us from taking actions that might be in our best interest.

Under our certificate of incorporation and the master transaction agreement we entered into with EMC, we must (subject to certain exceptions) obtain the consent of EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed), as the holder of our Class B common stock, prior to taking specified actions, such as acquiring other companies for consideration in excess of $100 million, issuing stock or other VMware securities, except pursuant to employee benefit plans (provided that we obtain Class B common stockholder approval of the aggregate annual number of shares to be granted under such plans), paying dividends, entering into any exclusive or exclusionary arrangement with a third party involving, in whole or in part, products or services that are similar to EMC's or amending certain provisions of our charter documents. In addition, we have agreed that for so long as EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) continues to own greater than 50% of the voting control of our outstanding common stock, we will not knowingly take or fail to take any action that could reasonably be expected to preclude the ability of EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) to undertake a tax-free spin-off. Denali, if the Dell Acquisition is completed, or another acquirer or successor, if the Dell Acquisition is not completed and EMC is subsequently acquired or otherwise undergoes a change of control, will be entitled to exercise the voting control and contractual rights of EMC, and may do so in a manner that could vary significantly from EMC's historic practice. If EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) does not provide any requisite consent allowing us to conduct such activities when requested, we will not be able to conduct such activities. As a result, we may have to forgo capital raising or acquisition opportunities that would otherwise be available to us, and we may be precluded from pursuing certain growth initiatives.

By becoming a stockholder in our company, holders of our Class A common stock are deemed to have notice of and have consented to the provisions of our certificate of incorporation and the master transaction agreement with respect to the limitations that are described above.

EMC has the ability to prevent a change in control transaction and may sell control of VMware without benefiting other stockholders.

EMC's voting control and its additional rights described above gives EMC (or Denali, if the Dell Acquisition is completed) the ability to prevent transactions that would result in a change of control of VMware, including transactions in which holders of our Class A common stock might otherwise receive a premium for their shares over the then-current market price. In addition, EMC (or Denali, if the Dell Acquisition is completed) is not prohibited from selling a controlling interest in us to a third party and may do so without the approval of the holders of our Class A common stock and without providing for a purchase of any shares of Class A common stock held by persons other than EMC. Accordingly, shares of Class A common stock may be worth less than they would be if EMC did not maintain voting control over us or if EMC did not have the additional rights described above.

If EMC's level of ownership significantly increases, EMC (or Denali, if the Dell acquisition is completed) could unilaterally effect a merger of VMware into EMC without a vote of VMware stockholders or the VMware board of directors at a price per share that might not reflect a premium to then-current market prices.

As of December 31, 2015, EMC held approximately 81.3% of VMware's outstanding common stock, and EMC's percentage ownership of VMware common stock could increase as a result of repurchases by VMware of our Class A common stock or purchases by EMC (or Denali, if the Dell Acquisition is completed). Section 253 of the Delaware General Corporation Law permits a parent company, when it owns 90% or more of each class of a subsidiary's stock that generally would be entitled to vote on a merger of that subsidiary with the parent, to unilaterally effect a merger of the subsidiary into the parent without a vote of the subsidiary's board or stockholders. Accordingly, if EMC or Denali (after the Dell Acquisition is completed) becomes the holder of at least 90% of VMware’s outstanding stock, neither VMware's board of directors nor VMware’s stockholders would be entitled to vote on a merger of VMware into Denali (the “short-form merger”). Moreover, a short-form merger is not subject to the stringent “entire fairness” standard and the parent company is not required to negotiate with a special committee of disinterested directors that would serve to approximate arm's length negotiations designed to ensure that a fair price is paid. Rather, a minority stockholder’s sole remedy in the context of a short-form merger is to exercise appraisal rights under Delaware law. In such a proceeding, petitioning stockholders may be awarded more or less than the merger price or the amount they would have received in a merger negotiated between the parent and a disinterested special committee advised by independent financial and legal advisors. Denali has publicly stated that from the completion of the Dell Acquisition through the two-year anniversary of its completion, it will not acquire any shares of common stock of VMware if such acquisition would cause the common stock of VMware to no longer be publicly traded on a U.S. securities exchange or VMware to no longer be required to file reports under Sections 13 and 15(d) of the Exchange Act, in each case, unless such acquisition of VMware common stock is required in order for VMware to continue to be a member of the affiliated group of corporations filing a consolidated tax return with Denali.

We engage in related persons transactions with EMC that may divert our resources, create opportunity costs and prove to be unsuccessful.

We currently engage in a number of related persons transactions with EMC (and, if the Dell Acquisition is completed, we may in the future engage in related persons transactions with Dell) that include joint product development, go-to-market, branding, sales, customer service activities, real estate and various support services. Additionally, we contributed technology and transferred employees to Pivotal Software, Inc. (“Pivotal”) in 2013 and continue to hold a significant ownership interest in Pivotal. For more information, refer to Note N to the consolidated financial statements in Part II, Item 8 and “Our Relationship with EMC” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of this Annual report on Form 10-K, and “Transactions with Related Persons” in the proxy statement for our 2015 annual meeting of stockholders.

We believe that these related persons transactions provide us a unique opportunity to leverage the respective technical expertise, product strengths and market presence of EMC and its subsidiaries for the benefit of our customers and stockholders while enabling us to compete more effectively with competitors who are much larger than us. However, these transactions (or other transactions we may enter into with Dell if the Dell Acquisition is completed) may prove not to be successful and may divert our resources or the attention of our management from other opportunities. Negotiating and implementing these arrangements can be time consuming and cause delays in the introduction of joint product and service offerings and disruptions to VMware's business. We cannot predict whether our stockholders and industry or securities analysts who cover us will react positively to announcements of new related persons transactions with EMC, and such announcements could have a negative impact on our stock price. Our participation in these transactions may also cause certain of our other vendors and ecosystem partners who compete with EMC and its subsidiaries (or, if the Dell Acquisition is completed, Denali and its subsidiaries) to also view us as their competitors. Additionally, if Pivotal requires additional funding, we may be asked to contribute capital resources to Pivotal or accept dilution in our ownership interest, and we may be unable to realize any value from the technology and resources that we contributed to Pivotal.

Our business and EMC’s business overlap, and EMC and Dell may compete with us, which could reduce our market share.

We and EMC are IT infrastructure companies providing products and services that overlap in various areas, including software-based storage, hyper-converged infrastructure products and cloud computing services. Dell, which will indirectly control our company if the Dell Acquisition is completed, also provides products and services that overlap with ours in various areas, including in management and hyper-converged infrastructure products. EMC and Dell compete with us in these areas now and may engage in increased competition with us in the future. In addition, the intellectual property agreement that we have entered into with EMC provides EMC the ability to use our source code and intellectual property, which, subject to limitations, it may use to produce certain products that compete with ours. EMC’s rights in this regard extend to its majority-owned subsidiaries, which could include joint ventures where EMC holds a majority position and one or more of our competitors hold minority positions.

EMC or, if the Dell Acquisition is completed, Denali could assert control over us in a manner that could impede our growth or our ability to enter new markets or otherwise adversely affect our business. Further, EMC or, if the Dell Acquisition is completed, Denali could utilize its control over us to cause us to take or refrain from taking certain actions, including entering into relationships with channel, technology and other marketing partners, enforcing our intellectual property rights or pursuing business combinations, other corporate opportunities (which EMC is expressly permitted to pursue under the circumstances set forth in our certificate of incorporation) or product development initiatives that could adversely affect our competitive position, including our competitive position relative to that of EMC and Dell in markets where we compete with them. In addition, EMC and Dell maintain significant partnerships with certain of our competitors, including Microsoft.

EMC’s and Dell's competition in certain markets may affect our ability to build and maintain partnerships.

Our existing and potential partner relationships may be negatively affected by our relationship with EMC and the pendency of the Dell Acquisition. We partner with a number of companies that compete with EMC or Dell in certain markets in which EMC or Dell participate. EMC’s majority ownership in us, and Denali's potential majority ownership in us if the Dell

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Acquisition is completed, may affect our ability to effectively partner with these companies. These companies may favor our competitors because of our relationship with EMC and our potential relationship with Dell.
EMC and Dell compete with certain of our significant channel, technology and other marketing partners, including IBM and Hewlett-Packard. Pursuant to our certificate of incorporation and other agreements that we have with EMC, EMC and, if the Dell Acquisition is completed, Dell may have the ability to impact our relationship with those of our partners that compete with EMC or Dell, which could have a material adverse effect on our operating results and our ability to pursue opportunities which may otherwise be available to us.
We could be held liable for the tax liabilities of other members of EMC’s consolidated tax group.
We have historically been included in EMC’s consolidated group for U.S. federal income tax purposes, as well as in certain consolidated, combined or unitary groups that include EMC Corporation or certain of its subsidiaries for state and local income tax purposes. Pursuant to our agreement with EMC, we and EMC generally will make payments to each other such that, with respect to tax returns for any taxable period in which we or any of our subsidiaries are included in EMC’s consolidated group for U.S. federal income tax purposes or any other consolidated, combined or unitary group of EMC Corporation or its subsidiaries, the amount of taxes to be paid by us will be determined, subject to certain consolidated return adjustments, as if we and each of our subsidiaries included in such consolidated, combined or unitary group filed our own consolidated, combined or unitary tax return. When we become subject to federal income tax audits as a member of EMC's consolidated group, the tax sharing agreement provides that EMC has authority to control the audit and represent EMC and VMware's interests to the IRS. Accordingly, if we and EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) differ on appropriate responses and positions to take with respect to tax questions that may arise in the course of an audit, our ability to affect the outcome of such audits may be impaired. In addition, if EMC effects a 355 Distribution or other transaction that is subsequently determined to be taxable, VMware could be liable for all or a portion of the tax liability, which could have a material adverse effect on our operating results and financial condition.
We have been included in the EMC consolidated group for U.S. federal income tax purposes since our acquisition by EMC, and expect to continue to be included in such consolidated group for periods in which EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) owns at least 80% of the total voting power and value of our outstanding stock. Each member of a consolidated group during any part of a consolidated return year is jointly and severally liable for tax on the consolidated return of such year and for any subsequently determined deficiency thereon. Similarly, in some jurisdictions, each member of a consolidated, combined or unitary group for state, local or foreign income tax purposes is jointly and severally liable for the state, local or foreign income tax liability of each other member of the consolidated, combined or unitary group. Accordingly, for any period in which we are included in the EMC consolidated group for U.S. federal income tax purposes or any other consolidated, combined or unitary group of EMC Corporation and its subsidiaries, we could be liable in the event that any income tax liability was incurred, but not discharged, by any other member of any such group.
We are still evaluating the potential impact of the pending Dell Acquisition on our tax sharing agreement with EMC and expect to amend the agreement following or in conjunction with the completion of the acquisition. If the pending Dell Acquisition is completed and it is subsequently determined that the tracking stock issued in connection with the Dell Acquisition constitutes a taxable distribution, VMware could be liable for all or a portion of the tax liability, which could have a material adverse effect on our operating results and financial condition.
We have limited ability to resolve favorably any disputes that arise between us and EMC.
Disputes may arise between EMC and us in a number of areas relating to our ongoing relationships, including our reseller, technology and other business agreements with EMC, areas of competitive overlap, strategic initiatives, requests for consent to activities specified in our certificate of incorporation and the terms of our intercompany agreements. We may not be able to resolve any potential conflicts with EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed), and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party.
The agreements we enter into with EMC may be amended upon agreement between the parties, and then in some cases only with the consent of Denali under the terms of the Dell Acquisition Agreement. While we are controlled by EMC and during the pendency of the Dell Acquisition, we may not have the leverage to negotiate amendments to

these agreements if required on terms as favorable to us as those we would negotiate with an unaffiliated third party, if at all.

Our CEO, our future CFO and some of our directors have potential conflicts of interest with EMC.

Our CEO, our future CFO and some of our directors own EMC common stock or equity awards to purchase EMC common stock that will accelerate upon completion of the Dell Acquisition. In addition, some of our directors are executive officers or directors of EMC, and EMC, as the sole holder of our Class B common stock, is entitled to elect 7 of our 8 directors. Ownership of EMC common stock and equity awards to purchase EMC common stock by our directors and the presence of executive officers or directors of EMC on our board of directors could create, or appear to create, conflicts of interest with respect to matters involving both us and EMC that could have different implications for EMC than they do for us. Provisions of our certificate of incorporation and the master transaction agreement between EMC and us address corporate opportunities that are presented to our directors or officers that are also directors or officers of EMC. These provisions may not adequately address potential conflicts of interest or ensure that potential conflicts of interest will be resolved in our favor. As a result, we may not be able to take advantage of corporate opportunities presented to individuals who are officers or directors of both us and EMC or, if the Dell Acquisition is completed, Denali, and we may be precluded from pursuing certain growth initiatives.

EMC's ability to control our board of directors may make it difficult for us to recruit independent directors.

So long as EMC or, if the Dell Acquisition is completed, Denali beneficially owns shares of our common stock representing at least a majority of the votes entitled to be cast by the holders of outstanding voting stock, EMC or, if the Dell Acquisition is completed, Denali can effectively control and direct our board of directors. Further, the interests of EMC, Denali and our other stockholders may diverge. Under these circumstances, persons who might otherwise accept our invitation to join our board of directors may decline.

Our historical financial information as a majority-owned subsidiary of EMC may not be representative of the results of a completely independent public company.

The financial information covering the periods included in this report does not necessarily reflect what our financial condition, operating results or cash flows would have been had we been a completely independent entity during those periods. In certain geographic regions where we do not have an established legal entity, we contract with EMC subsidiaries for support services and EMC personnel who are managed by us. The costs incurred by EMC on our behalf related to these employees are passed on to us and we are charged a mark-up intended to approximate costs that would have been charged had we contracted for such services with an unrelated third party. These costs are included as expenses on our consolidated statements of income. Additionally, we and EMC engage in intercompany transactions, including agreements regarding the use of EMC's and our intellectual property and real estate, agreements regarding the sale of goods and services to one another and to Pivotal, and an agreement for EMC to resell our products and services to third party customers. If EMC were to distribute its shares of our common stock to its stockholders or otherwise divest itself of all or a significant portion of its VMware shares, there would be numerous implications to VMware, including the fact that VMware could lose the benefit of these arrangements with EMC. There can be no assurance that VMware would be able to renegotiate these arrangements with EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) or replace them on the same or similar terms. Additionally, our business could face significant disruption and uncertainty as we transition from these arrangements with EMC. Moreover, our historical financial information is not necessarily indicative of what our financial condition, operating results or cash flows will be in the future if and when we contract at arm's length with independent third parties for the services we have received and currently receive from EMC. During 2015, we recognized revenues of $428 million, and as of December 31, 2015, $306 million of sales were included in unearned revenues from such transactions with EMC. For additional information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and notes thereto.

Risks Related to Owning Our Class A Common Stock

The price of our Class A common stock has fluctuated substantially in recent years and may fluctuate substantially in the future.

The trading price of our Class A common stock has fluctuated significantly in the past and could fluctuate substantially in the future due to the factors discussed in this Risk Factors section and elsewhere in this report. In particular, our stock price declined significantly following the announcement of the Dell Acquisition and following subsequent announcements of financial results and our guidance for future operating results. The period since the announcement of the Dell Acquisition has also coincided with a general downturn in share prices of technology companies. Future announcements concerning these matters, as well as continuing volatility in technology company share prices, could also lead to volatility in our stock price.

EMC, which holds 81.3% of our outstanding stock is not restricted from selling its shares and is entitled to certain registration rights. If a significant number of shares enters the public trading markets in a short period of time, the market price of our Class A common stock may decline. In addition, if our Class B common stock is distributed to

EMC stockholders and remains outstanding, it would trade separately from and potentially at a premium to our Class A common stock, and could thereby contribute additional volatility to the price of our Class A common stock.
Broad market and industry factors may also decrease the market price of our Class A common stock, regardless of our actual operating performance. The stock market in general and technology companies in particular have often experienced extreme price and volume fluctuations. Our public float is also relatively small due to EMC's holdings, which can result in greater volatility in our stock compared to that of other companies with a market capitalization similar to ours. In addition, in the past, following periods of volatility in the overall market and the market price of a company's securities, securities class

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action litigation has often been instituted, including against us, and, if not resolved swiftly, can result in substantial costs and a diversion of management's attention and resources.

If securities or industry analysts change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our Class A 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 any of the analysts who cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline.

Anti-takeover provisions in Delaware law and our charter documents could discourage takeover attempts.

As our controlling stockholder, EMC has the ability to prevent a change in control of VMware. Provisions in our certificate of incorporation and bylaws may also have the effect of delaying or preventing a change of control or changes in our management. These provisions include the following:

- the division of our board of directors into three classes, with each class serving for a staggered three-year term, which prevents stockholders from electing an entirely new board of directors at any annual meeting;
- the right of the Board of Directors to elect a director to fill a vacancy created by the expansion of the Board of Directors;
- following a 355 Distribution of Class B common stock by EMC to its stockholders, the restriction that a beneficial owner of 10% or more of our Class B common stock may not vote in any election of directors unless such person or group also owns at least an equivalent percentage of Class A common stock or obtains approval of our board of directors prior to acquiring beneficial ownership of at least 5% of Class B common stock;
- the prohibition of cumulative voting in the election of directors or any other matters, which would otherwise allow less than a majority of stockholders to elect director candidates;
- the requirement for advance notice for nominations for election to the Board of Directors or for proposing matters that can be acted upon at a stockholders' meeting;
- the ability of the Board of Directors to issue, without stockholder approval, up to 100,000,000 shares of preferred stock with terms set by the Board of Directors, which rights could be senior to those of common stock; and
- in the event that EMC or its successor-in-interest (including Denali, if the Dell Acquisition is completed) no longer owns shares of our common stock representing at least a majority of the votes entitled to be cast in the election of directors, stockholders may not act by written consent and may not call special meetings of the stockholders.

In addition, we have elected to apply the provisions of Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us. These provisions in our certificate of incorporation and bylaws and under Delaware law could discourage potential takeover attempts and could reduce the price that investors might be willing to pay for shares of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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ITEM 2. PROPERTIES

As of December 31, 2015, we owned or leased the facilities described below:

Location		Approximate Sq. Ft.		Principal Use(s)
Palo Alto, CA	owned: leased:	1,499,836 18,200	(1) (2)	Executive and administrative offices, sales and marketing, R&D and data center
North and Latin American region (excluding Palo Alto, CA)	leased:	1,161,039		Administrative offices, sales and marketing, R&D and data center
Asia Pacific region	leased:	1,209,267		Administrative offices, sales and marketing, R&D and data center
Europe, Middle East and Africa region	leased:	623,668		Administrative offices, sales and marketing, R&D and data center

(1) Represents all of the right, title and interest purchased in a ground lease, which expires in 2046, covering the property and improvements located at VMware's Palo Alto, California campus. We have the right to build an additional 90,000 square feet on the campus, if needed, to accommodate expansion.

(2) Includes leased space for a Washington data center facility, for which VMware is considered to be the owner for accounting purposes.

We believe that our current facilities are suitable for our current employee headcount and will sustain us through 2016, but we intend to add new facilities or expand existing facilities as needed as we add employees and expand our operations. We believe that suitable additional or substitute space will be available as needed to accommodate expansion of our operations.

ITEM 3. LEGAL PROCEEDINGS

Refer to Note L to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for a description of legal proceedings. See also the risk factor entitled "We are involved in litigation and regulatory inquiries and proceedings that could negatively affect us" in Part I, Item 1A of this Annual Report on Form 10-K for a discussion of potential risks to our results of operations and financial condition that may arise from legal proceedings

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our Class A common stock, par value $0.01 per share, trades on the New York Stock Exchange under the symbol VMW.

The following table sets forth the range of high and low sales prices of our Class A common stock on the New York Stock Exchange for the past two years during the fiscal periods shown. Our Class B common stock is not publicly traded.

	Market Prices	
	High	Low
Year ended December 31, 2015		
First Quarter	$86.91	$73.65
Second Quarter	92.20	79.93
Third Quarter	93.43	76.04
Fourth Quarter	82.35	52.72
Year ended December 31, 2014		
First Quarter	$111.45	$86.88
Second Quarter	112.89	88.64
Third Quarter	103.86	92.25
Fourth Quarter	95.00	75.85

Holders

We had 41 holders of record of our Class A common stock, and one holder of record, EMC Corporation ("EMC"), of our Class B common stock as of February 19, 2016.

Dividends

Subsequent to our initial public offering in August 2007, we have not declared or paid cash dividends on our common stock. We currently do not anticipate declaring any cash dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to the consent of the holders of our Class B common stock pursuant to our certificate of incorporation. Holders of our Class A common stock and our Class B common stock will share equally on a per share basis in any dividend declared on our common stock by our board of directors.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

Issuer purchases of Class A common stock during the quarter ended December 31, 2015:

	Total Number of Shares Purchased	Average Price Paid Per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Publicly Announced Plans or Programs (1)
October 1 – October 31, 2015	971,316	$77.19	971,316	$835,427,344
November 1 – November 30, 2015	—	—	—	835,427,344
December 1 – December 31, 2015	—	—	—	835,427,344
	971,316	$77.19	971,316	835,427,344

(1) The average price paid per share excludes commissions.

In January 2015, VMware's board of directors authorized the repurchase of up to an additional one billion dollars of VMware's Class A common stock through the end of 2017. VMware's Class A common stock has been, and may in the future be, purchased pursuant to our stock repurchase authorizations, from time to time, in the open market or through private transactions, subject to market conditions. We are not obligated to purchase any shares under our stock repurchase program.

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Subject to applicable laws, repurchases under our stock repurchase program may be made at such times and in such amounts as we deem appropriate. The timing of any repurchases and the actual number of shares repurchased will depend on a variety of factors, including VMware's stock price, cash requirements for operations and business combinations, corporate and regulatory requirements and other market and economic conditions. Purchases under our stock repurchase program can be discontinued at any time that we feel additional purchases are not warranted.

Stock Performance Graph

The graph below compares the cumulative total stockholder return on our Class A common stock with the cumulative total return on the S&P 500 Index and the S&P 500 Systems Software index for the period beginning on December 31, 2010 through December 31, 2015, assuming an initial investment of $100. Historically, we have not declared or paid cash dividends on our common stock, while the data for the S&P 500 Index and the S&P 500 Systems Software Index assume reinvestment of dividends.

	Base Period 12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
VMware, Inc.	$100.00	$93.57	$105.88	$100.90	$92.81	$63.63
S&P 500 Index	100.00	102.11	118.45	156.82	178.29	180.75
S&P 500 Systems Software Index	100.00	90.05	103.76	137.89	169.62	187.38

Note: The stock price performance shown on the graph above is not necessarily indicative of future price performance. This graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section nor shall it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, regardless of any general incorporation language in such filing.

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ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR SELECTED CONSOLIDATED FINANCIAL DATA

(amounts in millions, except per share amounts, and shares in thousands)

	For the Year Ended December 31,				
	2015	2014	2013	2012	2011
Summary of Operations:					
Revenues:					
License	$2,720	$2,591	$2,270	$2,087	$1,841
Services	3,927	3,444	2,937	2,518	1,926
GSA settlement	(76)	—	—	—	—
Total revenues	$6,571	$6,035	$5,207	$4,605	$3,767
Operating income	1,197	1,027	1,093	872	735
Net income	997	886	1,014	746	724
Net income per weighted average share, basic, for Class A and Class B	$2.35	$2.06	$2.36	$1.75	$1.72
Net income per weighted average share, diluted, for Class A and Class B	$2.34	$2.04	$2.34	$1.72	$1.68
Weighted average shares, basic, for Class A and Class B	424,003	430,355	429,093	426,658	421,188
Weighted average shares, diluted, for Class A and Class B	426,547	434,513	433,415	433,974	431,750

	December 31,				
	2015	2014	2013	2012	2011
Balance Sheet Data:					
Cash, cash equivalents and short-term investments(1)	$7,509	$7,075	$6,175	$4,631	$4,512
Working capital(1)(3)	5,231	4,886	4,198	2,982	3,148
Total assets	15,746	15,216	12,327	10,596	8,681
Total unearned revenues	5,076	4,833	4,092	3,461	2,708
Long-term obligations(2)	1,500	1,500	450	450	450
Total stockholders' equity	7,923	7,586	6,816	5,740	4,770
Cash Flow Data:					
Net cash provided by operating activities	$1,899	$2,180	$2,535	$1,897	$2,026

(1) In 2012, we acquired all of the outstanding capital stock of Nicira, Inc. ("Nicira") for $1,100 million, net of cash acquired, consisting of $1,083 million in cash and $17 million for the fair value of assumed equity attributed to pre-combination services.

(2) On January 21, 2014, in connection with our agreement to acquire A.W.S. Holding, LLC ("AirWatch Holding"), the sole member and equity holder of AirWatch LLC ("AirWatch"), we and EMC entered into a note exchange agreement providing for the issuance of three promissory notes in the aggregate principal amount of $1,500 million. The total debt of $1,500 million includes $450 million that was exchanged for the $450 million promissory note outstanding in prior years. Refer to Note B to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for further information.

(3) During the fourth quarter of 2015, VMware early-adopted Accounting Standards Update No. 2015-17, Balance Sheet Classification of Deferred Taxes, using retrospective application. This standard requires that all deferred tax assets and liabilities, and any related valuation allowance, be classified as non-current on the balance sheets. The updated standard has been applied retrospectively to all periods presented.

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

The following management's discussion and analysis ("MD&A") is provided in addition to the accompanying consolidated financial statements and notes to assist in understanding our results of operations and financial condition. Period-over-period changes are calculated based upon the respective underlying, non-rounded data. Unless the context requires otherwise, we are referring to VMware, Inc. and its consolidated subsidiaries when we use the terms "VMware," the "Company," "we," "our" or "us."

Overview

The information technology ("IT") industry is transforming, moving from a hardware-based traditional model to one of a software-defined infrastructure. We are a leader in virtualization and cloud infrastructure solutions utilized by organizations to help transform the way they build, deliver and consume IT resources. We develop and market our product and service offerings within three main product groups, which are discussed in more detail below and allow organizations to leverage synergies and manage IT resources across complex multi-cloud, multi-device environments. Our three main product groups are:

- SDDC or Software-Defined Data Center
- Hybrid Cloud Computing
- End-User Computing

We sell our solutions using enterprise agreements ("EAs") or as part of our non-EA, or transactional, business. EAs are comprehensive volume license offerings, offered both directly by us and through certain channel partners that also provide for multi-year maintenance and support.

SDDC or Software-Defined Data Center

Our SDDC technologies are the basis for the private cloud environment and provide the capabilities for our customers to extend their private cloud to the public cloud and to help them run, manage, secure, and connect all their applications across all clouds and devices. Historically, the majority of our license sales have been from VMware vSphere, which is included in our compute product category within our SDDC product group. However, the market for our compute products is reaching maturity, and VMware vSphere license sales have been declining. As the transformation of the IT industry continues, we expect that our growth of license sales within the SDDC product group will be increasingly derived from sales of our newer products, suites and services solutions across our SDDC portfolio. During 2015 we saw a significant increase in customers deploying the VMware SDDC stack of compute, networking, storage, and management. Additionally, we have experienced continued growth in sales volumes, production use, and number of customers who have purchased VMware NSX ("NSX"), our network virtualization solution, throughout 2015. We also continue to see growth in sales volumes and increase in customer count of our Virtual SAN ("vSAN") product and other newer offerings.

Hybrid Cloud Computing

Our cloud strategy has three components: (i) continue to expand beyond compute virtualization in the private cloud, (ii) extend the private cloud into the public cloud, and (iii) connect and secure endpoints across a range of public clouds.

Hybrid cloud computing is comprised of VMware vCloud Air Network ("vCAN") Service Providers Program and VMware vCloud Air ("vCloud Air") offerings. Revenues derived from these offerings grew during 2015. We plan to narrow the focus of vCloud Air to provide specialized cloud software and services unique to VMware that are distinct from those offered by other cloud providers.

On December 14, 2015, we announced that we will not be participating in the formation of the Virtustream Cloud Services Business previously announced by us and EMC on October 20, 2015.

End-User Computing

Our end-user computing solutions continue to experience strong growth. These solutions include our Horizon workplace suites and enterprise mobile management offerings, led by our AirWatch mobile solutions. AirWatch is at the center of our business mobility product portfolio. AirWatch secures and manages the delivery of cloud applications to users across a world of heterogeneous product devices. Currently, our AirWatch business models include an on-premise solution that we offer through the sale of perpetual licenses and an off-premise solution that we offer as software-as-a-service (“SaaS”). AirWatch products and services continued to contribute to the growth of our end-user computing product group during 2015. Our investments in AirWatch resulted in increased operating expenses during 2015, primarily driven by employee-related costs, including expenses we recognized in connection with installment payments to certain key employees as part of the acquisition, as well as amortization of purchased intangible assets.

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Business Realignment Plan

On January 22, 2016, we approved, subject to compliance with all applicable local legal obligations, a plan to streamline our operations, with plans to reinvest the associated savings in field, technical and support resources associated with growth products. The total charge resulting from this plan is estimated to be between $55 million and $65 million, consisting principally of employee-related charges to be paid in cash for the elimination of approximately 800 positions and personnel. Any such proposals in countries outside the United States will be subject to local law and consultation requirements. Actions associated with the plan are expected to be completed by June 30, 2016. Finalization of the plan will be subject to local information and consultation processes with employees or their representatives if required by law.

Dell and EMC Merger

We are a majority-owned and controlled subsidiary of EMC Corporation ("EMC"). As of December 31, 2015, EMC held 81.3% of our outstanding common stock and 97.5% of the combined voting power of our outstanding common stock, including 43 million shares of our Class A common stock and all of our Class B common stock.

On October 12, 2015, Dell Inc. ("Dell"), Denali Holding Inc. ("Denali") and EMC entered into a definitive merger agreement under which Denali has agreed to acquire EMC. Under the terms of the agreement, we will continue to operate as a publicly traded company. Upon closing of the transaction, a portion of the merger consideration that EMC shareholders will receive will include shares of Class V common stock that will be registered with the Securities and Exchange Commission and issued by Denali. Pursuant to the terms of the agreement, it is expected that approximately 0.111 shares of Class V common stock will be issued by Denali for each EMC share. Denali has also disclosed that the Class V common stock will be a publicly traded tracking stock that, upon issuance, is intended to track the performance of an approximately 53% economic interest in our business. The closing of the transactions contemplated by the merger agreement is subject to approval of the EMC shareholders as well as various regulatory approvals.

Results of Operations

Approximately 70% of our sales are denominated in the U.S. dollar, however, we also invoice and collect in the euro, the British pound, the Japanese yen, the Australian dollar and the Chinese renminbi in their respective regions. As a result, our financial statements, including our revenues, operating expenses, unearned revenues, and the resulting cash flows derived from the U.S. dollar equivalent of foreign currency transactions are impacted by foreign exchange fluctuations. Foreign currency fluctuations have had a negative impact on the growth rate of our revenues during 2015, the amount of unearned revenues recognized derived from sales denominated in foreign currencies, and the U.S. dollar equivalent of foreign currency cash collections. We have also benefited from operating expenses incurred and paid in currencies other than the U.S. dollar.

Revenues

Our revenues during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014			2014 vs. 2013	
				$ Change	% Change		$ Change	% Change
	2015	2014	2013	Actual	Actual	Constant Currency	Actual	Actual
Revenues:								
License	$2,720	$2,591	$2,270	$130	5 %	9 %	$321	14 %
Services:								
Software maintenance	3,405	3,022	2,563	384	13		459	18
Professional services	522	422	374	98	23		49	13
Total services	3,927	3,444	2,937	482	14		508	17
GSA settlement	(76)	—	—	(76)	n/a		—	n/a
Total revenues	$6,571	$6,035	$5,207	$536	9	12	$829	16

Revenues:										
United States	$3,311	$2,912	$2,485	$399	14	%		$427	17	%
International	3,260	3,123	2,722	137	4			401	15	
Total revenues	$6,571	$6,035	$5,207	$536	9		12	$829	16	

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In order to provide a comparable framework for assessing how our business performed, adjusted for the impact of foreign currency fluctuations, management analyzed year-over-year license and total revenue growth on a constant currency basis. License and total revenue growth in constant currency are non-GAAP financial measures that are calculated by converting license and total revenues recognized during the current period derived from non-U.S. dollar based transactions into U.S. dollars using the exchange rates that were effective in the comparable prior year period. The calculated current period license and total revenues, adjusted for foreign currency fluctuations, is compared to the license and total revenues of the comparable prior year period, as reported, in calculating license and total revenue growth in constant currency. Foreign currency fluctuations had a greater impact on our revenue growth during 2015 as compared to 2014. Foreign currency fluctuations did not have a material impact when comparing license and total revenue growth in 2014 to 2013, and as a result, have been excluded from the table above.

Hybrid cloud, including vCAN and vCloud Air, and our SaaS offerings, including our AirWatch mobile solutions, increased to greater than 6% of our total revenues during the year ended December 31, 2015 and experienced significant growth as compared to 2014. vCAN revenues are generally included in license revenues and our SaaS revenues, including vCloud Air and our AirWatch mobile solutions, are included in both license and services revenues.

While license and total sales increased during 2015 compared to 2014, the growth rate of our license sales was at a lower rate than we had expected. We believe the continued macroeconomic weakness in Brazil, Russia and China was a contributing factor. While we are seeing strong growth across our portfolio of emerging products, our compute products are reaching maturity and the sales of these products are expected to represent a decreasing percentage of our total business going forward. Taking this into account, we expect our total revenue growth in 2016 to slow as sales growth transitions to our emerging products.

License Revenues

License revenues increased 5% in 2015 and 14% in 2014. Our license revenues increased primarily as a result of increased sales of our emerging product offerings, including NSX, AirWatch mobile solutions, and vSphere with Operations Management (“vSOM”), as well as revenues from our hybrid cloud offerings. License revenues during 2015 also benefited as a result of declines in unearned license revenues.

Our license revenue growth rate during 2015 has been negatively impacted by certain factors including lower license sales of our core compute products, changes in the value of the U.S. dollar against the foreign currencies in which we invoice, and increased growth derived from our hybrid cloud and SaaS offerings. Perpetual license revenues that are part of a multi-year arrangement are generally recognized upon delivery of the underlying license using the residual method, whereas revenues derived from our hybrid cloud and SaaS offerings are recognized over a period of time. Growth from our hybrid cloud and SaaS offerings have resulted in less revenue being recognized up-front which has had an adverse impact on our growth rate during 2015. For 2016, we expect sales of our emerging products, which includes NSX and vSAN, to continue to increase as a percentage of total revenues and overall license revenue growth in 2016 is expected to be flat when compared with 2015.

Our license revenue growth rate was favorably impacted during 2014 compared to 2013 as a result of increased sales of our integrated product suites, including VMware vCloud Suite and vSOM. Our integrated product suites include various product offerings and are generally sold at a higher price than our products that are sold on an individual basis. Additionally, revenues from NSX, as well as our end-user computing products, including AirWatch mobile solutions, also contributed to the increase in license revenues.

Services Revenues

During 2015 and 2014, software maintenance revenues benefited from renewals of our software maintenance contracts sold in previous periods and additional maintenance contracts sold in conjunction with new software license sales. In each period presented, customers bought, on a weighted-average basis, more than 24 months of support and maintenance with each new license purchased.

Professional services revenues increased 23% in 2015 and 13% in 2014. The increase in 2015 and 2014 was attributable to growth in our license sales across our three product groups, including our newer products, resulting in increased demand for implementation and training services. As we continue to invest in our partners and expand our ecosystem of third-party professionals with expertise in our offerings to independently provide professional services to our customers, our professional services revenues will vary based on the delivery channels used in any given period as well as the timing of engagements.

GSA settlement

During the second quarter of 2015, we reached an agreement with the Department of Justice ("DOJ") and the General Services Administration ("GSA") to pay $76 million to resolve allegations that our government sales practices between 2006 and 2013 had violated the federal False Claims Act. The settlement was paid and recorded as a reduction of our total revenues during the year ended December 31, 2015.

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Unearned Revenues

Our unearned revenues as of December 31, 2015 and 2014 were as follows (table in millions):

	December 31, 2015	December 31, 2014
Unearned license revenues	$428	$488
Unearned software maintenance revenues	4,174	3,905
Unearned professional services revenues	474	440
Total unearned revenues	$5,076	$4,833

Unearned license revenues are generally recognized upon delivery of existing or future products or services, or are otherwise recognized ratably over the term of the arrangement. Future products include, in some cases, emerging products that are offered as part of product promotions where the purchaser of an existing product is entitled to receive the future product at no additional charge. To the extent the future product has not been delivered and vendor-specific objective evidence ("VSOE") of fair value cannot be established, the revenue for the entire order is deferred until such time as all product delivery obligations have been fulfilled. In the event the arrangement does not include professional services, unearned license revenues may also be recognized ratably, if the customer is granted the right to receive unspecified future products or VSOE of fair value on the software maintenance element of the arrangement does not exist.

Unearned software maintenance revenues are attributable to our maintenance contracts and are generally recognized ratably over the contract period. The weighted-average remaining term at December 31, 2015 was approximately two years. Unearned professional services revenues result primarily from prepaid professional services, including training, and are generally recognized as the services are delivered.

Unearned license and software maintenance revenues will fluctuate based upon a variety of factors including sales volume, the timing of both product promotion offers and delivery of the future products offered, and the amount of arrangements sold with ratable revenue recognition. Additionally, the amount of unearned revenues derived from transactions denominated in a foreign currency is impacted by fluctuations in the foreign currencies in which we invoice. The decline of unearned license revenues as of December 31, 2015, compared to December 31, 2014, was the result of our license revenues exceeding our license sales during 2015.

Cost of License Revenues, Cost of Services Revenues and Operating Expenses

Our cost of services revenues and operating expenses were primarily impacted by increasing headcount, net of realignment activities discussed below. Headcount during the year ended December 31, 2015 and 2014 continued to increase. The increased headcount has resulted in higher cash-based employee-related expenses across most of our income statement expense categories when compared to the same period in 2014 and 2013, respectively, and we expect this trend to continue.

In calculating the impact of foreign currency fluctuations on cost of license revenues, cost of services revenues and operating expenses, we converted expenses recognized during the current period derived from non-U.S. dollar based transactions into U.S. dollars using the exchange rates that were effective in the comparable prior year period and compared the calculated amount to the amount, as reported, in the comparable prior year period.

Cost of License Revenues

Our cost of license revenues principally consists of the cost of fulfillment of our software, royalty costs in connection with technology licensed from third-party providers and amortization of intangible assets. The cost of fulfillment of our software includes IT development efforts, personnel costs and related overhead associated with the physical and electronic delivery of our software products.

Our cost of license revenues during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
Cost of license revenues	$184	$190	$208	$(6)	(3)%	$(18)	(9)%
Stock-based compensation	2	2	2	—	(15)	—	—
Total expenses	$186	$192	$210	$(6)	(3)	$(18)	(9)

% of License revenues	7 %	7 %	9 %

Cost of license revenues decreased in 2015 compared to 2014 primarily due to a decrease in royalty costs of $6 million.

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Cost of license revenues decreased in 2014 compared to 2013 primarily due to a decrease of $34 million in amortization of capitalized software development costs, which was partially offset by an increase of $17 million in amortization of intangible assets.

No amortization expenses was recorded during the years ended December 31, 2015 and 2014, as all previously capitalized software development costs had been fully amortized as of December 31, 2013. We do not expect significant amortization of capitalized software development costs in future years as the costs incurred subsequent to technological feasibility are not expected to be material.

Cost of Services Revenues

Our cost of services revenues primarily includes the costs of personnel and related overhead to physically and electronically deliver technical support for our products and to provide professional services. Additionally, our costs of services revenues included depreciation on equipment supporting our service offerings.

Our cost of services revenues during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
Cost of services revenues	$788	$683	$491	$106	15 %	$192	39 %
Stock-based compensation	44	42	29	2	4	13	43
Total expenses	$832	$725	$520	$107	15	$204	39
% of Services revenues	21 %	21 %	18 %				

Cost of services revenues increased in 2015 compared to 2014. The increase was primarily due to growth in cash-based employee-related expenses of $96 million, due to incremental growth in headcount, and an increase in equipment, depreciation and facilities-related costs of $42 million. Additionally, third-party professional services costs increased $23 million due to an increase in demand for technical support and services. These increases were partially offset by the favorable impact of $47 million resulting from fluctuations in the exchange rate between the U.S. dollar and the foreign currencies in which we incur expenses.

Cost of services revenues increased in 2014 compared to 2013 primarily driven by the investment and growth in our SaaS and professional services offerings, which led to higher costs. The increase included growth in cash-based employee-related expenses of $124 million due to incremental growth in headcount, both organic and through acquisitions, and an increase in technical support costs of $21 million. Additionally, increases of $25 million in equipment and depreciation costs also contributed to the increases in cost of services revenues. The increase in 2014 was partially offset by a decrease of $10 million in operating expenses related to Pivotal.

Research and Development Expenses

Our research and development expenses include the personnel and related overhead associated with the development of our product software and service offerings.

Our research and development expenses during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
Research and development	$1,074	$995	$855	$80	8 %	$141	16 %
Stock-based compensation	226	244	227	(18)	(7)	17	7
Total expenses	$1,300	$1,239	$1,082	$61	5	$157	15
% of Total revenues	20 %	21 %	21 %				

Research and development expenses increased in 2015 compared to 2014. The increase was primarily due to growth in cash-based employee-related expenses of $90 million, driven by incremental growth in headcount. In addition, facilities-related costs increased $7 million. These increases were partially offset by a decrease in stock-based compensation of $18 million, primarily as a result of certain awards becoming fully vested in 2014, and the favorable impact of $16 million resulting from fluctuations in the exchange rate between the U.S. dollar and the foreign currencies in which we incur expenses.

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Research and development expenses increased in 2014 compared to 2013. The increase was primarily due to growth in cash-based employee-related expenses of $125 million and increases in stock-based compensation of $17 million, driven by incremental growth in headcount, both organic and through acquisitions. Equipment and depreciation expenses increased by $27 million in 2014. The increase in 2014 was partially offset by a decrease of $15 million in research and development expenses related to Pivotal.

Sales and Marketing Expenses

Our sales and marketing expenses include personnel costs, sales commissions and related overhead associated with the sale and marketing of our license and services offerings, as well as the cost of product launches. Sales commissions are generally earned and expensed when a firm order is received from the customer. Sales and marketing expenses also include the net impact from the expenses incurred and fees generated by certain marketing initiatives, such as our annual VMworld U.S. and VMworld Europe conferences.

Our sales and marketing expenses during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
Sales and marketing	$2,099	$1,969	$1,671	$130	7 %	$298	18 %
Stock-based compensation	168	172	144	(4)	(2)	29	20
Total expenses	$2,267	$2,141	$1,815	$126	6	$327	18
% of Total revenues	35 %	35 %	35 %				

Sales and marketing expenses increased in 2015 compared to 2014. The increase was primarily driven by growth in cash-based employee-related expenses of $158 million, due to incremental growth in headcount, and higher commission expense resulting from increased sales volume. In addition, equipment, depreciation and facilities-related costs increased $24 million. Costs incurred for marketing programs and related initiatives increased $20 million, and costs incurred for contractors increased $19 million. These increases were partially offset by the favorable impact of $109 million from fluctuations in the exchange rate between the U.S. dollar and the foreign currencies in which we incur expenses.

Sales and marketing expenses increased in 2014 compared to 2013 primarily driven by growth in cash-based employee-related expenses of $240 million and an increase in stock-based compensation expense of $29 million due to incremental growth in headcount, both organic and through acquisitions. Costs incurred for travel and marketing programs also increased by $48 million in 2014 compared 2013. The increase in expenses in 2014 was partially offset by a decrease of $10 million in sales and marketing expenses related to Pivotal.

General and Administrative Expenses

Our general and administrative expenses include personnel and related overhead costs to support the overall business. These expenses include the costs associated with our finance, human resources, IT infrastructure and legal, as well as expenses related to corporate costs and initiatives.

Our general and administrative expenses during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
General and administrative	$702	$626	$363	$76	12 %	$263	72 %
Stock-based compensation	64	69	56	(5)	(7)	12	22
Total expenses	$766	$695	$419	$71	10	$276	66
% of Total revenues	12 %	12 %	8 %				

General and administrative expenses increased in 2015 compared to 2014. The increase was primarily driven by an increase in equipment, depreciation and facilities-related costs of $37 million and an increase in cash-based employee-related expenses of $30 million, due to incremental growth in headcount. In addition, professional services-related costs increased $18 million. We have made and will continue to make, through the first quarter of

2016, installment payments to certain key employees of AirWatch subject to the achievement of specified future employment conditions. We recognized compensation expense of $145 million during 2015 relating to these installment payments, and expect to recognize $14 million during the

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first quarter of 2016. The increase to general and administrative expenses was partially offset by the favorable impact of $13 million from fluctuations in the exchange rate between the U.S. dollar and the foreign currencies in which we incur expenses.

General and administrative expenses increased in 2014 compared to 2013. We recognized compensation expense of $141 million in 2014 relating to installment payments to certain key employees of AirWatch subject to the achievement of specified future employment conditions. Other cash-based employee-related expenses increased by $52 million in 2014 due to incremental growth in headcount, both organic and through acquisitions. Costs of $11 million related to certain litigation and other contingencies, and amounts for IT development costs and stock-based compensation expense further contributed to the increase in expenses in 2014 compared to 2013.

Realignment Charges

Our realignment charges during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
Realignment charges	$23	$16	$62	$7	46 %	$(47)	(75)%
Stock-based compensation	—	—	6	—	—	(6)	(100)
Total expenses	$23	$16	$68	$7	46	$(53)	(77)
% of Total revenues	— %	— %	1 %				

During the year ended December 31, 2015, we eliminated approximately 380 positions across all major functional groups and geographies to streamline our operations. As a result of these actions, $23 million of severance-related realignment charges were recognized during the year ended December 31, 2015. As of December 31, 2015, $3 million remained in accrued expenses and other on the consolidated balance sheets and is expected to be paid during 2016.

During the year ended December 31, 2014, we eliminated approximately 180 positions across all major functional groups and geographies to streamline our operations. As a result of these actions, $16 million of severance-related realignment charges were recognized during the year ended December 31, 2014 on the consolidated statements of income.

During the year ended December 31, 2013, we approved and initiated a business realignment plan to streamline our operations. The realignment plan included the elimination of approximately 710 positions and personnel across all major functional groups and geographies. During the year ended December 31, 2013, $68 million of realignment charges were recorded on the consolidated statements of income, which consisted of workforce reduction charges and asset impairments. As of December 31, 2013, the plan had been completed.

During 2016, we expect to incur charges of $55 million to $65 million due to the business realignment plan we approved on January 22, 2016. We plan to reinvest the associated savings in field, technical and support resources associated with growth products. Actions associated with this plan are expected to be completed by June 30, 2016.

Other Income (Expense), Net

Our other income (expense), net during the years ended December 31, 2015, 2014 and 2013 were as follows (dollars in millions):

	For the Year Ended December 31,			2015 vs. 2014		2014 vs. 2013	
	2015	2014	2013	$ Change	% Change	$ Change	% Change
Other income (expense), net	$(7)	$7	$28	$(14)	(186)%	$(21)	(73)%
% of Total revenues	— %	— %	1 %				

Fluctuations in other income (expense), net during 2015 as compared to 2014 were primarily driven by gains and losses on strategic investments and foreign currency exchange.

Other income (expense), net decreased in 2014 compared to 2013. The decrease was primarily due to the recognition of a pre-tax gain of $44 million during 2013 as a result of exiting certain lines of business under our business realignment plan. Partially offsetting this gain in 2013 was an other-than-temporary impairment charge of $13 million that we recognized in connection with a strategic investment.

Income Tax Provision

Our annual effective income tax rate was 17.8%, 15.5%, and 11.6% for 2015, 2014, and 2013, respectively. Our effective tax rate in 2015 was higher than 2014 primarily due to a shift in the composition of income before tax from lower international

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tax jurisdictions to the U.S., a reduction in the benefit from the federal research tax credit and the net increase in unrecognized tax benefits. Our effective tax rate in 2014 was higher than 2013 primarily because the 2013 effective tax rate included the benefit of the federal research tax credit for both 2013 and 2012, whereas the 2014 effective tax rate only included the benefit of the federal research tax credit for 2014.

Our rate of taxation in non-U.S. jurisdictions is lower than our U.S. tax rate. Our non-U.S. earnings are primarily earned by our subsidiaries organized in Ireland, and as such, our annual effective tax rate can be significantly impacted by the composition of our earnings in the U.S. and non-U.S. jurisdictions.

All income earned abroad, except for previously taxed income for U.S. tax purposes, is considered indefinitely reinvested in our non-U.S. operations and no provision for U.S. taxes has been provided with respect to such income. As of December 31, 2015 and 2014, the undistributed earnings of our non-U.S. subsidiaries were approximately $4,473 million and $3,594 million, respectively. Our intent is to indefinitely reinvest our non-U.S. funds in our foreign operations, and our current plans do not demonstrate a need to repatriate them to fund our U.S. operations. At this time, it is not practicable to estimate the amount of tax that may be payable if we were to repatriate these earnings.

We are included in the EMC consolidated group for U.S. federal income tax purposes, and expect to continue to be included in such consolidated group for periods in which EMC owns at least 80% of the total voting power and value of our combined outstanding Class A and Class B common stock as calculated for U.S. federal income tax purposes. The percentage of voting power and value calculated for U.S. federal income tax purposes may differ from the percentage of outstanding shares beneficially owned by EMC due to the greater voting power of our Class B common stock as compared to our Class A common stock and other factors. Each member of a consolidated group during any part of a consolidated return year is jointly and severally liable for tax on the consolidated return of such year and for any subsequently determined deficiency thereon. Should EMC’s ownership fall below 80% of the total voting power or value of our outstanding stock in any period, then we would no longer be included in the EMC consolidated group for U.S. federal income tax purposes, and our U.S. federal income tax would be reported separately from that of the EMC consolidated group.

Although our results are included in the EMC consolidated return for U.S. federal income tax purposes, our income tax provision is calculated primarily as though we were a separate taxpayer. However, certain transactions that we and EMC are parties to are assessed using consolidated tax return rules.

The EMC consolidated group is routinely under audit by the Internal Revenue Service (the “IRS”). All U.S. federal income tax matters have been concluded for years through 2008. The IRS is currently auditing the EMC consolidated group's federal tax returns for tax years 2009 through 2011. In addition, we are under corporate income tax audits in various states and non-U.S. jurisdictions.

Our future effective tax rate may be affected by such factors as changes in tax laws, changes in our business, regulations, or rates, changing interpretation of existing laws or regulations, the impact of accounting for stock-based compensation, the impact of accounting for business combinations and shifts in the amount of earnings in the U.S. compared with other regions in the world as well as the expiration of statute of limitations and settlements of audits.

Our Relationship with EMC

As of December 31, 2015, EMC owned 43 million shares of Class A common stock and all 300 million shares of Class B common stock, representing 81.3% of our total outstanding shares of common stock and 97.5% of the combined voting power of our outstanding common stock.

The information provided below includes a summary of the transactions entered into with EMC and EMC’s consolidated subsidiaries (collectively “EMC”). EMC acquired the controlling interest in VCE Company LLC (“VCE”) during the fourth quarter of 2014. Transactions with VCE from the date EMC acquired VCE have been included in the tables below.

Transactions with EMC

We and EMC engaged in the following ongoing intercompany transactions, which resulted in revenues and receipts and unearned revenues for us:

- Pursuant to an ongoing reseller arrangement with EMC, EMC bundles our products and services with EMC’s products and sells them to end users.
-