

VMWARE, INC.

FORM 10-K (Annual Report)

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

Form 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended January 31, 2020

OR

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

For the transition period from to

Commission File Number 001-33622

VMWARE, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

94-3292913
(I.R.S. Employer
Identification Number)

3401 Hillview Avenue
Palo Alto, CA
(Address of principal executive offices)

94304
(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	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock	VMW	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 ☒ No ☐

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

At August 2, 2019, 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 August 2, 2019) was approximately \$12.7 billion. 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 August 2, 2019 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 March 17, 2020, the number of shares of common stock, par value \$0.01 per share, of the registrant outstanding was 418,009,379, of which 110,787,543 shares were Class A common stock and 307,221,836 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 2020. 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

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VMware, Pivotal, vSphere, VMware Cloud, vRealize, Wavefront, CloudHealth, Carbon Black, NSX, VeloCloud, AppDefense, Avi Networks, VMware vSAN, vCloud, vCloud NFV, Pivotal Labs, Heptio, Tanzu, vCenter, Workspace ONE, Horizon, VMworld, vMotion, AirWatch, ESX, Bitnami, Nyansa, VMware Foundation, AetherPal, and vCloud Air are registered trademarks or trademarks of VMware or its subsidiaries in the United States and other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements. All statements other than statements of historical fact could be deemed forward-looking statements, and words such as “expect,” “anticipate,” “target,” “goal,” “project,” “intent,” “plan,” “believe,” “momentum,” “seek,” “estimate,” “continue,” “potential,” “future,” “endeavor,” “will,” “may,” “should,” “could,” “depend,” “predict,” and variations or the negative expression of such words and similar expressions are intended to identify forward-looking statements. Forward-looking statements in this report include statements relating to expected industry trends and conditions; future financial performance, trends or plans; anticipated impacts of developments in accounting rules and tax laws and rates; VMware’s expectations regarding the timing of tax payments and the impacts of changes in VMware’s corporate structure and alignment; plans for and anticipated benefits of VMware products, services and solutions and partner and alliance relationships; plans for, timing of and anticipated impacts and benefits of corporate transactions, acquisitions, stock repurchases and investment activities; the outcome or impact of pending litigation, claims or disputes; the economic impact of the coronavirus/COVID-19; and any statements of assumptions underlying any of the foregoing. These statements are based on current expectations about the industries in which VMware operates and the beliefs and assumptions of management. 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.

PART I

ITEM 1. BUSINESS

Overview

VMware, Inc. (“VMware”) originally pioneered the development and application of virtualization technologies with x86 server-based computing, separating application software from the underlying hardware. Information technology (“IT”) driven innovation continues to disrupt markets and industries. Technologies emerge faster than organizations can absorb, creating increasingly complex environments. IT is working at an accelerated pace to harness new technologies, platforms and cloud models, ultimately guiding their business through a digital transformation. To take on these challenges, we are working with customers in the areas of hybrid and multi-cloud, modern applications, networking, security and digital workspaces. Our software provides a flexible digital foundation to enable customers in their digital transformation.

We help customers manage their IT resources across private clouds and complex multi-cloud, multi-device environments by offering solutions across three categories: Software-Defined Data Center (“SDDC”), Hybrid and Multi-Cloud Computing and Digital Workspace—End-User Computing (“EUC”). This portfolio supports and addresses the key IT priorities of our customers including accelerating their cloud journey, modernizing their applications, empowering digital workspaces, transforming networking and embracing intrinsic security. VMware enables customers to digitally transform their operations as they ready their applications, infrastructure and employees for constantly evolving business needs.

We incorporated in Delaware in 1998, were acquired by EMC Corporation (“EMC”) in 2004 and conducted our initial public offering of our Class A common stock in August 2007. In September 2016, Dell Technologies Inc. (“Dell”) acquired EMC. As a result, EMC became a wholly-owned subsidiary of Dell, and we became an indirectly-held, majority-owned subsidiary of Dell. We are considered a “controlled company” under the rules of the New York Stock Exchange (“NYSE”). As of January 31, 2020, Dell controlled approximately 80.9% of our outstanding common stock, including 31 million shares of our Class A common stock and all of our Class B common stock.

In December 2019, we completed the acquisition of Pivotal Software, Inc. (“Pivotal”), a subsidiary of Dell, to enhance our cloud native applications portfolio. The purchase of Pivotal was accounted for as a transaction between entities under common control and required that we recast our prior period financial statements and financial data to include Pivotal for all periods presented in this Annual Report on Form 10-K, as if the combination had been in effect since the inception of common control.

Effective with the fourth quarter of fiscal 2020, we presented a new revenue line item entitled “subscription and SaaS revenue” on our consolidated statements of income. Prior period amounts have been reclassified to conform with current period presentation. Previously, subscription and software-as-a-service (“SaaS”) revenue was allocated between license revenue and services revenue.

We refer to our fiscal years ended January 29, 2021, January 31, 2020 and February 1, 2019 as “fiscal 2021,” “fiscal 2020” and “fiscal 2019,” respectively.

Total revenue in fiscal 2020 increased 12% to \$10.8 billion. Total revenue is comprised of license revenue of \$3.2 billion, subscription and SaaS revenue of \$1.9 billion and services revenue of \$5.8 billion. While sales of our VMware vSphere (“vSphere”) product have remained strong, the majority of our license sales originate from solutions across our broad portfolio beyond our compute products.

Our corporate headquarters are located at 3401 Hillview Avenue, Palo Alto, California, and we have 169 offices worldwide.

Products and Technology Solutions

Software-Defined Data Center

We were the first company to articulate a vision for SDDC, whereby infrastructure is increasingly virtualized and delivered as a service, enabling data center management to be entirely automated by software, from one unified platform. Traditional data centers are collections of technology silos where each application type has its own vertical stack consisting of a CPU and operating system, storage pool, networking, security, and management systems. Over time, costs to maintain data center infrastructure have increased as the data center environment has become more heterogeneous and complex, requiring greater resources to manage and maintain IT infrastructures. SDDC is designed to transform and modernize 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 dramatically simplifies data center operations and lowers costs.

Our SDDC architecture consists of four main product categories, which are available separately or as part of our Software-Defined Data Center Suites or Platform:

- Compute

- Cloud Management
- Networking
- Storage and Availability

Compute

VMware vSphere, our flagship data center platform that utilizes our hypervisor software, 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 implement vSphere, VMware Cloud Foundation or suite solutions that include vSphere, such as VMware vCloud Suite.

We have continued to develop vSphere solutions to be compatible with new technologies and tools utilized by software developers and enterprises, including modern cloud-native applications.

Cloud Management

Our comprehensive cloud management platform manages hybrid environments running a range of workloads from traditional to container. Cloud management solutions are available as both an on-premises platform or as a service under our VMware Cloud Services offering, providing businesses with automated operation, programmable provisioning and application monitoring. VMware Cloud Services optimize cloud usage and costs, improve cloud security and compliance, monitor application and cloud infrastructure, and automate the deployment, management and migration of applications and data across vSphere, non-vSphere, hybrid and multiple public clouds. VMware Cloud Services enable our customers to run, manage, connect and better secure their applications across hybrid and multiple public clouds, including Amazon Web Services (“AWS”), Microsoft Azure (“Azure”), Google Cloud Platform (“Google Cloud”) and IBM Cloud, as well as all devices in a common operating environment, regardless whether the underlying infrastructure is VMware-based.

Key products in the cloud management product portfolio include:

- *vRealize Operations*—provides performance, capacity and configuration management for virtual or physical infrastructure as well as transparency and control over the costs and quality of IT services.
- *vRealize Automation*—enables customers to rapidly deploy and provision cloud services.
- *Wavefront by VMware*—provides a SaaS-based metrics monitoring and analytics platform for modern cloud-native applications.
- *CloudHealth by VMware*—delivers a consistent cloud operations platform across AWS, Azure and Google Cloud, enabling customers to analyze and manage cloud costs, usage, security and performance centrally for native public clouds.

Networking

VMware networking products and services enable our customers to connect and operate their network consistently within and across the data center, the cloud and network edges. Our offerings also provide networking capabilities to virtual machines, containers and public cloud workloads.

Key products within networking solutions include:

- *VMware NSX (“NSX”)*—our network virtualization solution, abstracts physical networks and greatly simplifies the provisioning and consumption of networking and security resources. NSX can be layered into any environment, integrates with many automation, security and container solutions and is an integral part of our key offerings, including VMware Cloud Foundation, VMware Cloud on AWS and Pivotal Container Service.
- *VMware SD-WAN by VeloCloud*—available as a service and as an on-premises software solution, enables simple, agile and more secure branch connectivity. Our SD-WAN solution serves as a platform for deploying virtual network services that integrate with local edge compute to manage and control application traffic from users and Internet-connected devices.
- *Network Insight*—delivers intelligent operations and planning for software-defined networking and security across virtual, physical and multi-cloud environments.
- *VMware NSX Advanced Load Balancer by Avi Networks*—provides consistent, multi-cloud load balancing, web application firewall and application insights across data centers and public clouds. We acquired Avi Networks, Inc., a provider of multi-cloud application delivery services in July 2019.

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 are applicable to hyperconverged infrastructure as well as

traditional infrastructure solutions designed to enable customers to deploy a broad range of hardware solutions. Key solutions include:

- *VMware vSAN* (“vSAN”)—clusters server disks to create simple, shared storage designed for virtual machines in hyperconverged infrastructure.
- *VxRail*—a hyperconverged infrastructure solution comprised of a fully integrated and pre-configured Dell EMC Appliance powered by vSAN and vSphere software.

Software-Defined Data Center Suites

Our SDDC products are available separately, and our compute and management products may also be purchased as part of a broader offering. The VMware vRealize Suite and VMware vCloud Suite are packaged solutions for building and managing a complete cloud infrastructure optimized for use with the vSphere platform:

- *VMware vRealize Suite*—an enterprise-ready cloud management platform that enables customers to manage heterogeneous, multi-cloud environments.
- *VMware vCloud Suite*—an integrated offering that brings together our vSphere hypervisor and our vRealize Suite multi-vendor multi-cloud management platform.

Software-Defined Data Center Platform—On Premises

VMware Cloud Foundation is a unified platform that combines our compute, storage and networking technologies with cloud management into an integrated stack that delivers enterprise-ready cloud infrastructure for private and public clouds. The offering includes lifecycle management capabilities to span the full stack.

SDDC products can also be delivered through our VMware vCloud NFV, a fully integrated, modular, multi-tenant network functions virtualization (“NFV”) platform. It provides the compute, storage, networking and operations management and service assurance capabilities to enable operators to provide virtualized network services and drive NFV deployments with an architecture that will support 5G and Edge services in the future.

Hybrid and Multi-Cloud Computing

Our multi-cloud offering is based on consistent infrastructure and operations across the data center, public cloud and edge environments. This allows customers to benefit from a single deployment model with consistent security policies, visibility and governance for all applications, running on-premises and off-premises. It builds on our private and multi-cloud capabilities by offering customers the freedom to innovate in multiple clouds and is delivered through VMware Cloud Foundation, the VMware vRealize cloud management platform and a new set of VMware Cloud Services that we are developing. We continue to execute against our multi-cloud strategy as we drive and expand our cloud partnerships to offer our customers choice and flexibility. Our overarching cloud strategy contains three key 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 multi-cloud strategy is designed to provide organizations with solutions that work across all clouds and devices.

VMware Cloud Provider Program Services

We currently enable our customers to utilize vSphere-based multi-cloud computing capacity through our VMware Cloud Provider Program (“VCP”) offerings. VCP partners, a key component of our strategic priority to support multi cloud, constitute a global ecosystem of over 4,500 cloud providers in more than 120 countries who provide VMware-based cloud services. Our VCP offering is directed at hosting and cloud computing providers, giving organizations the flexibility to choose between running applications in virtual machines on their own private clouds inside their data center or on public clouds hosted and managed by a VMware cloud provider.

Software-Defined Data Center Platform—Multi Cloud

VMware Cloud Foundation can be used for on-premises private clouds and also can be extended to multi-cloud environments using VMware Cloud on AWS or VCP offerings. VMware Cloud on AWS is an on-demand service that enables customers to run applications across vSphere-based cloud environments and provides access to a broad range of AWS services. This hybrid offering, a strategic alliance with AWS, integrates vSphere, vSAN and NSX along with VMware vCenter management and is optimized to run on dedicated, elastic, bare-metal AWS infrastructure. VMware Cloud on AWS is available to our VCP and System Integrators and System Outsourcers partners through our VMware Cloud Provider—Managed Services Provider offering, which enables our partners to make VMware Cloud on AWS available to their end customers without having to create a similar service in their own data centers.

VMware Cloud Foundation is also offered as a service platform through a select number of our VCP partners. For example, IBM, OVH US LLC (“OVH”) and Rackspace are VCP partners who leverage our SDDC technologies to create

cloud services addressing the needs of customers globally. IBM was our first VCPP partner to offer VMware Cloud Foundation as a service, enabling their customers to leverage our SDDC technologies on IBM Cloud in their worldwide cloud data centers.

VMware Cloud Services

VMware Cloud Services are SaaS offerings that optimize cloud usage and costs, improve cloud security and compliance, monitor application and cloud infrastructure, and automate the deployment, management and migration of applications and data across vSphere and non-vSphere environments and hybrid and multiple public clouds. VMware Cloud Services enable our customers to run, manage, connect and better secure their applications across hybrid and multiple public clouds, including AWS, Azure, Google Cloud and IBM Cloud, as well as all devices in a common operating environment, regardless whether the underlying infrastructure is VMware-based.

Digital Workspace—End-User Computing

Our EUC portfolio offers a digital workspace to enable our customers to more securely deliver access to applications and data for their end users from any device of the user's choice and from any location. Our EUC solutions are designed to optimize simplicity and choice for end users, while providing more security and control to corporate IT organizations. IT organizations can enhance their enterprise security for corporate applications, data and endpoints utilizing our EUC solutions.

Our complete EUC solution consists of VMware Workspace ONE ("Workspace ONE"), our digital workspace platform that more securely delivers and manages any application on any device by integrating access control, application management and multi-platform endpoint management. Workspace ONE is powered by Unified Endpoint Management (formerly known as AirWatch) and VMware Horizon ("Horizon") application and desktop virtualization, tied together with a common access control layer:

- *Unified Endpoint Management*—a platform built to manage and help secure endpoints across all major operating systems from a single management console, enabling customers to more effectively manage, secure and benefit from "bring your own device" programs.
- *Horizon*—a virtual platform that provides a streamlined approach to delivering, protecting and managing virtual desktops and applications from one digital workspace, while containing costs and allowing end users to work anytime, anywhere and across any device.

While Unified Endpoint Management and Horizon are also offered separately, together this solution provides customers with a complete digital workspace solution that combines identity, mobile management, and application and desktop virtualization solutions. Through the continued expansion of our virtual desktop portfolio, we offer customers the opportunity to run virtual desktops as-a-service through multiple environments including the Azure platform, VMware Cloud on AWS and IBM Cloud.

Recent Acquisitions

In December 2019, we acquired Pivotal, a leading cloud-native platform provider, to unify VMware cloud native Kubernetes offerings and to bring together technology from Heptio, which we acquired in 2018, and the existing Pivotal offerings of Pivotal Cloud Foundry, Pivotal Application Service, and Pivotal Labs, collectively referred to as modern applications platform solutions. The combination of Pivotal and Heptio allows us to provide a modern, agile development process and a cloud-native platform to our customers that can be deployed on major private and public clouds. Pivotal's offerings are core to the VMware Tanzu portfolio of products and services announced in fiscal 2020. The VMware Tanzu portfolio is designed to help enterprises build modern applications and simplify the use of Kubernetes in a multi-cloud environment. Our first Tanzu offerings became available in early fiscal 2021.

Key products within modern application platform solutions include:

- *Pivotal Cloud Foundry*—a cloud-native platform, leveraging Cloud Foundry open-source software, that provides a consistent way to launch, and develop on, applications using common programming languages and frameworks across private, public and multi-cloud environments.
- *Pivotal Application Service*—allows enterprises to continuously deploy and operate custom software more securely and at scale across popular private and public clouds.
- *Pivotal Container Service*—a container management platform that allows enterprises to deploy and operate Kubernetes, an open-source system for container orchestration, in an enterprise-grade manner across private and public clouds.
- *Pivotal Labs*—a service that assists enterprises in accelerating their cloud-native transformation by implementing modern agile development practices.
- *Heptio*—an offering of products and services that helps enterprises deploy and operationalize Kubernetes.

In October 2019, we acquired Carbon Black, Inc. (“Carbon Black”), a developer of cloud-native endpoint protection, to broaden our existing security offerings, including AppDefense and built-in security capabilities within VMware Workspace ONE platform.

Key products within security solutions include:

- *VMware Carbon Black Cloud platform*—consolidates endpoint security and IT operations with a universal agent and single console to adapt cyberattack prevention to each organization, ease analysis of the most complex attacks, and simplify the automation of detection and response workflows. VMware Carbon Black Cloud platform identifies attackers’ changing behavior patterns, enabling customers to better detect, respond to and prevent emerging attacks. Our main Endpoint Protection solutions include next-generation antivirus, endpoint detection and response, and application control.
- *AppDefense*—adds zero-trust security to help protect applications running in virtualized environments.
- *VMware Workspace ONE platform*—enables users to securely access data and applications from any device. Key built-in security capabilities include single sign on functionality, conditional access and multi-factor authentication. In addition, Workspace ONE Intelligence delivers insights into the digital workspace environment, including analytics on user behaviors and device compliance, and automated remediation processes.

Technology Alliances

We have more than 1,000 technology partners with whom we bring offerings to the marketplace and over 4,500 active cloud provider partners. We classify our partners as follows:

Independent Hardware Vendors (“IHVs”)—we have established relationships with large system vendors, including Cisco, Fujitsu, HPE, IBM, Lenovo and Hitachi Vantara for certification and co-development, and we continue to work closely with Dell. We also work closely with Intel, Nvidia 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 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 leaders, to deliver value-added products that integrate with our products.

VMware Cloud Providers—we have established partnerships with over 4,500 active cloud providers, including Microsoft, Google, Oracle, CenturyLink, Fujitsu, IBM, KPN, NTT, OVH, Rackspace, Softbank, Telefonica, Tieto and Virtustream, to enable them to host and deliver enterprise-class multi clouds as a way for enterprises to extend their data centers to external clouds, while preserving security, compliance and quality of service.

In addition to our base of active partnerships with cloud providers, we have a strategic alliance with AWS to build and deliver an integrated hybrid offering, VMware Cloud on AWS, that enables customers to run applications across vSphere-based private, public and multi-cloud environments.

Our Technology Alliance Partner (“TAP”) program facilitates collaborative solution creation and coordinated go-to-market activities for our greater than 1,000 technology partner ecosystem. Created exclusively for IHV and ISV partners, the TAP program gives technology partners the ability to test, integrate and package application software, infrastructure and hardware products with our products and services across the SDDC, Multi Cloud Computing, EUC and Modern Applications and Security areas—on premises or in the cloud.

Our ISVs and other alliance partners, developers and additional VMware community members continue to distribute software applications as virtual appliances. We invest significant capital in testing and certification of infrastructure to rigorously ensure our software is compatible 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 expertise in software-defined data centers, hybrid and multiple public clouds, the modernization, migration and management of applications, networking, security, and digital workspaces. 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 a high value on innovation, quality and open collaboration with our partners. We currently participate in numerous standards groups, and our employees hold a variety of standards organization leadership positions.

We continue to invest in our key growth areas while also investing in areas that we expect to be significant growth drivers in future periods.

Sales and Marketing

We have a highly leveraged go-to-market strategy that includes a direct sales force, including a specialized sales force for our key growth products, and our channel partners.

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 Connect (formerly known as VMware Partner Network), a program which offers resellers pricing incentives, rebates, sales and product training through the VMware Partner Connect web portal, and access to the worldwide network of VMware distributors. In addition, our channel partner network includes certain systems integrators and resellers trained and certified to deliver consulting services and solutions leveraging our products.

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 purchase our offerings through 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 negotiated prices. EAs enable us to build long-term relationships with our customers as they commit to our virtual infrastructure solutions. Our sales cycle can vary greatly depending on numerous factors, including the size and complexity of the proposed offering and customer’s infrastructure footprint.

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 alternative virtualization, end-user computing 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, cloud services and digital workspace solutions. 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 United States (“U.S.”) and Europe, while our vForum events are held in the Asia Pacific and Japan region. We also offer management presentations, seminars and webinars on our virtualization and EUC products and cloud services. We believe the combination of these activities strengthens our brand and enhances our leading positions in the industries in which we compete.

We continue joint marketing, sales, branding and product development efforts with Dell and other Dell companies to enhance the collective value we deliver to our mutual customers. Our collective business with Dell continued to create synergies that benefited our sales during fiscal 2020. Bookings through Dell sales channels have grown more rapidly than through non-Dell resellers and distributors, and Dell sales channels in aggregate comprise the largest route-to-market for our sales. We also have strategic partnerships with AWS, IBM and Microsoft to jointly provide the expertise, solutions and go-to-market capabilities to help our customers efficiently and more securely extend their proven software-defined solutions into public clouds, utilizing the tools and processes with which our customers are already familiar.

Our business is subject to seasonality in the sale of our products and services. For example, our fourth quarter revenue is affected by a number of seasonal factors, including year-end spending trends which impact the timing of renewals of our EAs and support and maintenance contracts.

Remaining Performance Obligations

Remaining performance obligations represent the aggregate amount of the transaction price in contracts allocated to performance obligations not delivered, or partially undelivered, as of the end of the reporting period. Remaining performance obligations include unearned revenue, multi-year contracts with future installment payments and certain unfulfilled orders against accepted customer contracts at the end of any given period.

As of January 31, 2020, the aggregate transaction price allocated to remaining performance obligations was \$10.3 billion, of which approximately 54% is expected to be recognized as revenue over the next twelve months and the remainder thereafter.

As of February 1, 2019, the aggregate transaction price allocated to remaining performance obligations was \$8.7 billion, of which approximately 55% was expected to be recognized as revenue during fiscal 2020, and the remainder thereafter.

Backlog

Backlog is comprised of unfulfilled purchase orders or unfulfilled executed agreements at the end of a given period and is net of related estimated rebates and marketing development funds. As of January 31, 2020, our total backlog was \$18 million. Backlog primarily consists of licenses, maintenance and services. Our backlog related to licenses was \$5 million, which we generally expect to deliver and recognize as revenue during the following quarter. The amount excluded from the remaining performance obligations because such contracts were subject to cancellation until fulfillment of the performance obligation occurs was not material as of January 31, 2020.

As of February 1, 2019, total backlog was approximately \$449 million and backlog related to licenses was approximately \$147 million. Backlog totaling \$34 million as of February 1, 2019 was excluded from the remaining performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs.

The amount and composition of backlog will fluctuate period to period, and backlog is managed based upon multiple considerations, including product and geography. We do not believe that the amount of backlog is indicative of future sales or revenue or that the mix of backlog at the end of any given period correlates with actual sales performance of a particular geography or particular products or services.

Customers

Our product offerings allow customers to manage IT resources across private clouds and complex multi-cloud, multi-device environments. Customer deployments range in size from a single virtualized server for small businesses to thousands of virtual machines and managed devices for our largest enterprise customers.

During fiscal 2020, two 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 revenue. Arrow Electronics, Inc. and Tech Data Corporation accounted for 12% and 10%, respectively, of our consolidated revenue in fiscal 2020. 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.

During fiscal 2020, revenue from Dell, including purchases of products and services directly from us, as well as through our channel partners, accounted for 31% of our consolidated revenue. These purchases included Dell selling joint solutions as an OEM which accounted for 12% of revenue from Dell, or 4% of our consolidated revenue. The remaining revenue from Dell consisted of Dell acting as a distributor to other non-Dell resellers, reselling products and services as a reseller or purchasing products and services for its own internal use. On certain transactions, Dell Financial Services also provided financing to our end users at our end users' discretion.

Competition

We face intense competition across all 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. Additionally, the adoption of public cloud, micro-services, containers and open source technologies has the potential to erode our profitability.

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 our private, hybrid and multi-cloud products and services fail to address evolving customer requirements, the demand for our virtualization products and services may decline, and we could experience lower growth. Additionally, VCPP offerings from our partners may compete directly with infrastructure-as-a-service ("IaaS") offerings from various public cloud providers such as AWS and Microsoft. Many of these cloud providers are partnering with on-premises hardware vendors to deliver their cloud platform as an on-premise solution, including Microsoft Azure Stack ("Azure Stack") and AWS Outposts. In fiscal 2018, we entered into a strategic alliance with AWS to deliver a vSphere-based cloud service, VMware Cloud on AWS, running in AWS data centers available in certain geographies. In fiscal 2020, we also announced partnerships with Microsoft (Azure VMware

Solution by CloudSimple), Google (Google Cloud VMware Solution by CloudSimple), and Oracle (Oracle Cloud VMware Solution) under the framework of our VCPP that enable customers to run native VMware-based workloads on Azure, Google Cloud and Oracle Cloud. Our partnerships with these public cloud providers may be seen as competitive with each other, with other VCPP partners and with AWS, while some VCPP partners may elect to include solutions such as VMware Cloud on AWS as part of their managed services provider offerings. In addition, in November 2018, when AWS announced AWS Outposts, we extended our collaboration with AWS by previewing offerings that will run on AWS Outposts. To the extent customers choose to operate native AWS environments (or similar non-VMware environments, such as Azure Stack) in their data centers in lieu of purchasing our on-premises and hybrid and multi-cloud products, our operating results could be materially adversely affected.

Providers of enterprise security offerings. With the close of VMware's acquisition of Carbon Black in October 2019, we launched a new set of enterprise security solutions that includes the Carbon Black endpoint security platform and the intrinsic security elements of our existing NSX virtual networking, Workspace ONE end user and our compute offerings. The cybersecurity market is large, highly competitive, fragmented and subject to rapidly evolving technology, shifting customer needs and the frequent introductions of new solutions. Competitors in the end point security space include legacy antivirus solution providers such as McAfee and NortonLifeLock, established software and infrastructure providers such as BlackBerry Limited (after recently purchasing Cylance, Inc.) and Microsoft as well as next-generation endpoint security providers such as CrowdStrike. In addition, new startup companies and established companies have entered or are currently attempting to enter the next-generation endpoint security market. While we believe that the intrinsic security elements in our existing offerings coupled with our Carbon Black endpoint security offerings and new combined offerings we expect to develop and introduce in the future will enable us to provide an integrated security offering with significant advantages over our competitors' current offerings, our ability to gain traction and market share as a new entrant into this well-established market segment is uncertain. If our efforts to enter the enterprise security market segment are unsuccessful, our operating results could be materially adversely affected.

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. For example, in August 2019, Microsoft modified its on-premises licensing terms to require end users who wish to deploy Microsoft software on certain dedicated hosted cloud services other than Microsoft's Azure cloud service, including VMware Cloud on AWS, to purchase additional rights from Microsoft. 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, Microsoft offers its own server, network, and storage virtualization software packaged with its Windows Server product as well as built-in virtualization in the client version of Windows and Cisco includes network virtualization technology in many of their data center networking platforms. As a result, our existing and prospective customers may elect to use products that are perceived to be "free" or "very low cost" instead of purchasing our 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, rkt, OpenShift, Mesos, Kubernetes and OpenStack, and other open source software-based products, solutions and services developed by enterprise IT vendors that target data center virtualization and private cloud, such as Red Hat (now a part of IBM) and Nutanix, may reduce the demand for our solutions, put pricing pressure on our offerings and enable competing vendors to leverage open source technologies to compete directly with us. In addition, one of the characteristics of open source software is that, subject to specified restrictions, anyone may modify and redistribute existing open source software and use it to compete in the marketplace. Such competition can develop with a smaller degree of overhead and lead time than traditional proprietary software companies require. New platform technologies and standards based on open source software are consistently being developed and can gain popularity quickly. Improvements in open source software could cause customers to replace software purchased from us with open-source software. We are delivering container technologies, such as PKS, and Cloud Native Application technologies portfolio with VMware Tanzu. We have also increased our level of commitment to open source projects and communities like the Cloud Native Computing Foundation that are designed to increase that rate at which customers adopt micro-services architectures. The adoption of distributed micro-service application architectures, and their alignment with container technologies, represents an emerging area of competition. As we continue to invest in these areas, we will experience increasing competitive overlap with other cloud native vendors like Red Hat and the large providers of public cloud infrastructure. Such competitive pressure

or the availability of new open source software may result in reduced sales, price reductions, lower operating margins and increased sales and marketing expenses, any one of which may adversely affect our operating results.

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. For example, in July 2019, one of our important partners and customers, IBM, closed its acquisition of Red Hat, one of our competitors in the cloud native applications space. 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.

Intellectual Property

As of January 31, 2020, over 3,300 patents of varying duration issued by the U.S. 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. We also have numerous pending U.S. 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 U.S. for “VMWARE,” “VMWORLD,” “VSPHERE,” “VCLOUD,” “VCENTER SERVER,” “VMOTION,” “HORIZON,” “AIRWATCH,” “VREALIZE,” “VCLOUD,” “WORKSPACE ONE,” “ESX,” “VMWARE NSX,” “VMWARE CLOUD FOUNDATION,” “VELOCLOUD,” “CARBON BLACK,” “BITNAMI” and “PIVOTAL” and numerous other trademarks. We have also registered trademarks in several foreign countries.

We rely on a combination of patent, trademark, copyright and trade secret laws in the U.S. 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 U.S. and several 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 U.S. 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 U.S. products covered by the claims of granted patents.

Our granted U.S. 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.

Employees

As of January 31, 2020, we had approximately 31,000 employees in 169 offices worldwide, less than 5% of which were contracted through Dell. None of our employees are represented by labor unions, and we consider current employee relations to be good.

We contract with Dell subsidiaries for support from Dell personnel who are managed by us 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.

Environmental, Social and Governance

All of our stakeholders are essential to our business—shareholders, customers, suppliers, employees, community as well as the environment and society. We are committed to creating products and services that support our customers in reducing the environmental impact of their digital transformation; operating our company as a carbon neutral certified enterprise; and procuring renewable energy. VMware has taken steps in human capital initiatives that drive equality through equal pay and equal opportunity, including linking Diversity and Inclusion goals to corporate goals. We report on our Environmental, Social and Governance (“ESG”) progress by publishing an annual Global Impact report at www.vmware.com/company/sustainability detailing our overall strategy relating to ESG performance.

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 discuss 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. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The names of our executive officers and their ages as of March 17, 2020, are as follows:

Name	Age	Position(s)
Patrick Gelsinger	59	Chief Executive Officer and Director
Zane Rowe	49	Chief Financial Officer and Executive Vice President
Jean-Pierre Brulard	61	Executive Vice President, Worldwide Sales
Amy Fliegelman Olli	56	Senior Vice President, General Counsel and Secretary
Sanjay Poonen	50	Chief Operating Officer, Customer Operations
Rangarajan (Raghu) Raghuram	57	Chief Operating Officer, Products and Cloud Services
Rajiv Ramaswami	54	Chief Operating Officer, Products and Cloud Services

Patrick Gelsinger has served as Chief Executive Officer and a director of VMware since September 2012. Prior to joining VMware, he served as President and Chief Operating Officer, EMC Information Infrastructure Products at EMC from September 2009 to August 2012. Mr. Gelsinger joined EMC from Intel Corporation, where he served as Senior Vice President and Co-General Manager of Intel Corporation’s Digital Enterprise Group from 2005 to September 2009 and served as Intel’s Senior Vice President, Chief Technology Officer from 2002 to 2005. Prior to that, Mr. Gelsinger led Intel’s Desktop Products Group.

Zane Rowe has served as VMware's Chief Financial Officer and Executive Vice President since March 2016. Prior to joining VMware, he was EMC's Executive Vice President and Chief Financial Officer from October 2014 until February 2016. 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 Airlines in 1993. Mr. Rowe currently serves on the board of Sabre Corporation.

Jean-Pierre Brulard was appointed VMware's Executive Vice President, Worldwide Sales effective February 2020. Mr. Brulard previously served as VMware's Senior Vice President and General Manager, EMEA from April 2015 to January 2020 and as Vice President, EMEA, Southern Region from April 2009 to April 2015. Prior to joining VMware, Mr. Brulard served in senior management positions of increasing responsibility for Business Objects, an enterprise software company, for seven years, most recently as its Senior Vice President and General Manager, EMEA.

Amy Fliegelman Olli joined VMware as Senior Vice President and General Counsel in August 2017, and was appointed as Secretary in October 2017. Prior to joining VMware, Ms. Fliegelman Olli served as Senior Vice President and General Counsel of Avaya, Inc., a provider of contact center, unified communications and networking products, from June 2014 through August 2017. Previously, she was the General Counsel of CA, Inc., a provider of software solutions, from September 2006 to June 2014 where her responsibilities covered all legal, governance, compliance, internal audit, security, risk management and controls matters. Ms. Fliegelman Olli also spent 18 years with IBM Corporation, ultimately serving as Vice President and General Counsel for the Americas and Europe.

Sanjay Poonen has served as VMware's Chief Operating Officer, Customer Operations since October 2016. Prior to that he served as Executive Vice President and General Manager, End-User Computing, Head of Global Marketing from April 2016 to October 2016. He joined VMware as Executive Vice President and General Manager, End-User Computing in August 2013. Prior to joining VMware, he spent more than seven years at SAP AG, an enterprise application software and services company, serving as President and Corporate Officer of Platform Solutions and the Mobile Division from April 2012 to 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 Corporation, Apple, Inc. and Microsoft Corporation.

Rangarajan (Raghu) Raghuram has served as VMware's Chief Operating Officer, Products and Cloud Services since October 2016. Prior to that he served as Executive Vice President, Software-Defined Data Center Division from April 2012 to October 2016. 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 Communications Corporation and Bang Networks, Inc.

Rajiv Ramaswami has served as VMware's Chief Operating Officer, Products and Cloud Services since October 2016. Mr. Ramaswami joined VMware in April 2016 and served as VMware's Executive Vice President and General Manager of its Networking and Security business. Prior to joining VMware he was Executive Vice President and General Manager of the Infrastructure & Networking Group of Broadcom Corporation, a semiconductor company, from 2010. Prior to that he was Vice President and General Manager of the Cloud Services and Switching Technology Group at Cisco Systems, Inc., where he also served as Vice President and General Manager for a variety of business units in Optical, Switching and Storage Networking. Prior to joining Cisco, he served in various technical and leadership positions at Xros, Tellabs Inc. and IBM's Thomas J. Watson Research Center. Mr. Ramaswami is a member of the board of directors of NeoPhotonics Corporation.

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 we face. 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 Dell overlapping business opportunities, Dell's ability to control certain transactions and resource allocations and related persons transactions with Dell and its other affiliated companies are set forth below under the heading "Risks Related to Our Relationship with Dell."

Risks Related to Our Business

We are unable to predict the extent to which the global COVID-19 pandemic may adversely impact our business operations, financial performance, results of operations and stock price.

The coronavirus COVID-19 pandemic and efforts to control its spread have significantly curtailed the movement of people, goods and services worldwide, including in most or all of the regions in which we sell our products and services and conduct our business operations. The magnitude and duration of the resulting decline in business activity cannot currently be estimated with any degree of certainty and threatens to (1) negatively impact the demand for our products and services, (2) restrict our sales operations and marketing efforts, (3) disrupt the supply chain of hardware needed to operate our SaaS offerings, offer hardware appliances that integrated with our software products or run our business and (4) disrupt our ability to conduct product development and other important business activities. For example, in response to the COVID-19 pandemic, certain industry events that we sponsor or at which we present and certain customer events have been canceled, postponed or moved to virtual-only experiences; we are encouraging all of our employees to work remotely; and we may deem it advisable to similarly alter, postpone or cancel entirely additional customer, employee or industry events in the future. Accordingly, we expect the COVID-19 pandemic to have a negative impact on our sales and our results of operations, the size and duration of which we are currently unable to predict. Additionally, concerns over the economic impact of COVID-19 have caused extreme volatility in financial and other capital markets which has and may continue to adversely impact our stock price and our ability to access capital markets.

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

Our products and services are primarily based on server virtualization and related compute technologies used for virtualizing on-premises data center servers, which form the foundation for private cloud computing. As the market for server virtualization continues to mature, the rate of growth in license sales of vSphere has declined. 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, hybrid and multi-cloud-based computing and mobile computing, including our vSphere-based SDDC products such as our vRealize management and automation offerings, vSAN storage virtualization offerings, and NSX offerings, as well as our Horizon client virtualization offerings, Unified Endpoint Management mobile device management offerings and our VMware Cloud on AWS offering. We have also been introducing SaaS versions of our on-premises products, including VMware Horizon Suite and certain Unified Endpoint Management offerings, and are working to extend our comprehensive data center virtualization and container platform into the public cloud and to introduce cloud products and services by investing in cloud and SaaS initiatives and partnering with public cloud providers such as AWS and IBM. Additionally, we announced the availability of Azure VMware Solutions in May 2019 and Google Cloud VMware Solution in July 2019, each through our partnership with CloudSimple (now a part of Google), and the availability of Oracle Cloud VMware Solution in September 2019. Recently, VMware has also begun to build, invest in, and acquire a range of SaaS and cloud-native technologies and products, including those acquired through our Heptio Inc., CloudHealth Technologies, Inc., and VeloCloud Networks, Inc. (“VeloCloud”) acquisitions, and we have launched managed subscription services such as VMware Cloud on AWS Outposts and our VMware Cloud on Dell EMC. In October 2019, we completed the acquisition of Carbon Black, which will form the nucleus of VMware’s new set of enterprise security solutions focused on helping to provide advanced cybersecurity protection to customers. In December 2019, we completed the acquisition of Pivotal, which significantly increases our presence in the cloud-native applications segment. These cloud and SaaS initiatives present new and difficult technological, operational and compliance challenges, and significant investments continue to 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, hybrid and multi-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 continues to increase, our rate of revenue growth increasingly depends upon the success of our newer product and service offerings. To the extent that our newer 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, we may fail to realize returns on our investments in new initiatives 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.

A significant portion of our revenue is derived, and will for the foreseeable future continue to be derived, from our server virtualization products. As more businesses achieve high levels of virtualization in their data centers, the market for our vSphere product continues to mature. Additionally, as businesses increasingly utilize public cloud and SaaS-based offerings, they are building more of their new compute workloads off-premises and are increasingly shifting some of their existing and many of their new workloads to public cloud providers, thereby limiting growth, and potentially reducing the market for on-premises deployments of vSphere. Although sales of vSphere have declined as a portion of our overall business, and we expect this trend to continue, vSphere remains key to our future growth as it serves as the foundation for our newer SDDC, network virtualization and our newer subscription and SaaS offerings. Although we have launched, and are continuing to develop,

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, container, cloud computing, end-user computing, security and software-defined data center industries are interrelated 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. Additionally, the adoption of public cloud, micro-services, containers, and open source technologies has the potential to erode our profitability.

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 our private, hybrid and multi-cloud products and services fail to address evolving customer requirements, the demand for VMware's virtualization products and services may decline, and we could experience lower growth. Additionally, VCPP offerings from our partners may compete directly with IaaS offerings from various public cloud providers such as AWS and Microsoft. Many of these cloud providers are partnering with on-premises hardware vendors to deliver their cloud platform as an on-premises solution, including Azure Stack and AWS Outposts. In fiscal 2018, we entered into a strategic alliance with AWS to deliver a vSphere-based cloud service, VMware Cloud on AWS, running in AWS data centers available in certain geographies. In fiscal 2020, we also announced partnerships with Microsoft (Azure VMware Solution by CloudSimple), Google (Google Cloud VMware Solution by CloudSimple), and Oracle (Oracle Cloud VMware Solution) under the framework of our VCPP that enable customers to run native VMware-based workloads on Azure, Google Cloud, and Oracle Cloud. Our partnerships with these public cloud providers may be seen as competitive with each other, with other VCPP partners and with AWS, while some partners may elect to include solutions such as VMware Cloud on AWS as part of their managed services provider offerings. In addition, in November 2018, when AWS announced AWS Outposts, we extended our collaboration with AWS by previewing offerings that will run on AWS Outposts, currently available to try as part of the VMware Cloud on AWS Outposts Beta program. To the extent customers choose to operate native AWS environments (or similar non-VMware environments, such as Azure Stack) in their data centers in lieu of purchasing VMware's on-premises and hybrid and multi-cloud products, our operating results could be materially adversely affected.

Providers of enterprise security offerings. With the close of VMware's acquisition of Carbon Black in October 2019, we launched a new set of enterprise security solutions that includes the Carbon Black endpoint security platform and the intrinsic security elements of our existing NSX virtual networking, Workspace ONE end user and our compute offerings. The cybersecurity market is large, highly competitive, fragmented and subject to rapidly evolving technology, shifting customer needs and the frequent introductions of new solutions. Competitors in the end point security space include legacy antivirus solution providers such as McAfee and NortonLifeLock established software and infrastructure providers such as BlackBerry Limited (after recently purchasing Cylance, Inc.) and Microsoft as well as next-generation endpoint security providers such as CrowdStrike. In addition, new startup companies and established companies have entered or are currently attempting to enter the next-generation endpoint security market. While we believe that the intrinsic security elements in our existing offerings coupled with our Carbon Black endpoint security offerings and new combined offerings we expect to develop and introduce in the future will enable us to provide an integrated security offering with significant advantages over our competitors' current offerings, our ability to gain traction and market share as a new entrant into this well-established market segment is uncertain. If our efforts to enter the enterprise security market segment are unsuccessful, our operating results could be materially adversely affected.

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 or more expensive to our end users. For example, in August 2019, Microsoft modified its on-premises licensing terms to require end users who wish to deploy Microsoft software on certain dedicated hosted cloud services other than Microsoft's Azure cloud service, including VMware Cloud on AWS, to purchase additional rights from Microsoft. 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, Microsoft offers its own server, network, and storage virtualization software packaged with its Windows Server product as well as built-in virtualization

in the client version of Windows and Cisco includes network virtualization technology in many of their data center networking platforms. 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, rkt, OpenShift, Mesos, Kubernetes and OpenStack, and other open source software-based products, solutions and services developed by enterprise IT vendors that target data center virtualization and private cloud, such as Red Hat (now a part of IBM) and Nutanix, may reduce the demand for our solutions, put pricing pressure on our offerings and enable competing vendors to leverage open source technologies to compete directly with us. In addition, one of the characteristics of open source software is that, subject to specified restrictions, anyone may modify and redistribute existing open source software and use it to compete in the marketplace. Such competition can develop with a smaller degree of overhead and lead time than traditional proprietary software companies require. New platform technologies and standards based on open source software are consistently being developed and can gain popularity quickly. Improvements in open source software could cause customers to replace software purchased from us with open-source software. VMware is delivering container technologies, such as PKS, and Cloud Native Application technologies portfolio with VMware Tanzu. We have also increased our level of commitment to open source projects and communities like the Cloud Native Computing Foundation that are designed to increase the rate at which customers adopt micro-services architectures. The adoption of distributed micro-service application architectures, and their alignment with container technologies, represents an emerging area of competition. As we continue to invest in these areas, we will experience increasing competitive overlap with other cloud native vendors like Red Hat and the large providers of public cloud infrastructure. Such competitive pressure or the availability of new open source software may result in reduced sales, price reductions, lower operating margins and increased sales and marketing expenses, any one of which may adversely affect our operating results.

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. For example, in July 2019, one of our important partners and customers, IBM, closed its acquisition of Red Hat, one of our competitors in the cloud native applications space. 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.

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 experienced, and we expect to continue to experience, 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. Additionally, changes in immigration and work permit laws and regulations or the administration or interpretation of such laws or regulations could impair our ability to attract and retain highly qualified employees. 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 IT 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, including as a result of volatility in the stock market, recent changes in tariffs and trade agreements or the imposition of fines or government sanctions, could adversely impact our business, financial condition and operating results in a number of ways, including by lengthening sales cycles, affecting the size of 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, the economic impact of the coronavirus/COVID-19 is highly uncertain and will depend upon the ability to control its spread. Additionally, a recurrence of the sovereign debt crisis in Europe, repercussions from the United Kingdom's ("U.K.") exit from the European Union ("EU") ("Brexit") or that region's failure to sustain its recovery 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, political and economic instability created by Brexit and trade tensions between the U.S. and its trading partners have caused and may continue to cause significant volatility in global financial 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. Changes in governmental fiscal, monetary and tax policies may also impact interest rates on credit and debt, which have been at relatively low levels for several years. 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. Increases in our cost of borrowing could also impact our ability to access capital markets should we wish to raise additional funding for business investments, which could adversely affect our ability to repay or refinance our outstanding indebtedness, fund future product development and acquisitions or conduct stock buybacks.

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.

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

The software-defined data center, hybrid and multi-cloud computing and end-user computing 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 cost effective, 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. We may also fail to adequately anticipate and prepare for the commercialization of emerging technologies such as blockchain and the development of new markets and applications for our technology such as the Internet of Things and "edge" computing and thereby fail to take advantage of new market opportunities or fall behind early movers in those markets.

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, and enable and maintain their compatibility with multiple IT resources such as public clouds utilized by our customers, which can significantly increase the development time and effort necessary to achieve the interoperability of our offerings while maintaining product quality. When we release significant new versions of our existing offerings, the complexity of our products may require existing customers to remove and replace prior versions in order to take full advantage of substantial new features and capabilities, which may subdue initial demand for the new versions or, conversely, depress demand for existing versions until the customer is ready to purchase and install the newest release. 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 revenue in the software-defined data center, hybrid and multi-cloud computing and end-user computing 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 vSphere product line, manage the transition to hybrid and multi-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 vSphere may decline. Additionally, if we fail to realize returns on investments in our newer NSX virtual networking, hyperconverged infrastructure, subscription and SaaS, and edge computing initiatives as well as our recently launched enterprise security and modern applications platform solutions, our operating margins and results of operations will be adversely impacted.

Breaches of our cybersecurity systems or the systems of our vendors, partners and suppliers could seriously harm our business.

We depend upon our IT systems and the systems of SaaS providers 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. Consequently, cyber risks represent a large and growing risk to our business. We are increasingly developing and maintaining large data sets and relying on machine learning, artificial intelligence and analytics to provide services to our customers and partners. Unauthorized parties (which may have included nation states and individuals sponsored by them) have penetrated our network security and our website in the past and such unauthorized parties may do so in the future. Employees or contractors have introduced vulnerabilities in, and enabled the exploitation of, our IT environments in the past and may do so in the future. These cyber-attacks, which are increasing in number and technical sophistication, 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 as we store increasing amounts of customer data and host or manage parts of customers’ businesses in cloud-based IT environments. Additionally, with our recent acquisition of endpoint security provider Carbon Black and the launch of our new set of enterprise security solutions, our products may be targeted by computer hackers seeking to compromise product security.

We are increasingly being targeted for financial gain and fraud by criminal entities. Utilizing techniques such as email, telephone and postal mail solicitation, criminals seek to extort or steal funds from the company and employees. 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;
- defects and security vulnerabilities could be exploited or introduced into our software products or our subscription and SaaS offerings and impair or disrupt their availability, 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, or are perceived to have occurred, we could be subject to significant claims for liability from our customers, we could face regulatory actions and sanctions from governmental agencies under privacy, data protection or other laws, our ability to protect our intellectual property rights could be compromised, our reputation and competitive position could be materially harmed, we could face material losses as the result of successful financial cyber-fraud schemes 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 materially adversely affected.

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 revenue 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 and pricing levels for our products and services;
- variations in customer choices among our on-premises and subscription and SaaS offerings, which can impact our rates of total revenue and license revenue growth;
- changes in customers' budgets for information technology purchases and in the timing of their purchasing decisions;
- 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;
- the credit risks associated with our distributors, who account for a significant portion of our product revenue and accounts receivable, and our customers;
- the timing of when sales orders are processed, which can cause fluctuations in our backlog and impact our bookings and timing of revenue recognition;
- 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;
- increased volatility in the provision for income taxes in periods in which transfers of intellectual property between our legal entities occur; 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.

Acquisitions and divestitures 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. In October 2019, we completed our acquisition of Carbon Black, and in December 2019, we completed our acquisition of Pivotal. We also from time to time sell or divest businesses, products and technologies. Acquisitions and divestitures involve significant risks and uncertainties, which include:

- disrupting our ongoing operations and diverting management from day-to-day responsibilities;
- increasing our expenses, and adversely impacting our business, financial condition and operating results, including, for example, the dilutive impact on our operating margin and earnings per share that we expect from our acquisitions of Carbon Black and Pivotal;
- the costs of integrating business operations and on-boarding personnel, particularly for larger acquisitions such as Carbon Black and Pivotal;
- failure of an acquired business to further our business strategy;
- uncertainties in achieving the expected benefits of an acquisition or disposition, including enhanced revenue, technology, human resources, cost savings, operating efficiencies and other synergies;
- reducing cash available for operations, stock repurchase programs and other uses and resulting in potentially dilutive issuances of equity securities or the incurrence of additional 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 acquired businesses effectively;
- the need to provide transition services in connection with a disposition that may result in the diversion of resources and focus;
- 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;
- declining employee morale and retention issues affecting employees of businesses that we acquire or dispose of, which may result from changes in compensation, or changes in management, reporting relationships, future prospects or the direction of the acquired or disposed business;
- assuming the liabilities of an acquired business, including acquired litigation-related liabilities and regulatory compliance issues, and potential litigation or regulatory action arising from a proposed or completed acquisition;
- lawsuits resulting from an acquisition or disposition;
- maintaining good relationships with customers or business partners of an acquired business or our own customers as a result of any integration of operations or the divestiture of a business upon which our customers rely;
- unidentified issues not discovered during the diligence process, including issues with the acquired or divested 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 an acquired business;
- risks relating to the challenges and costs of closing a transaction;
- the accounting consequences of certain acquisitions which may vary by deal structure, including, for instance, the need to account for our acquisition of Pivotal as a transaction between entities under common control, which requires prior period financial statements of VMware to be recast as if we had owned Pivotal and operated as one entity for all periods presented; and
- the need to later divest acquired assets at a loss if an acquisition does not meet our expectations.

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. For example, political and economic instability created by Brexit has resulted in significant volatility in the value of the British pound and other currencies, including the euro. During the year ended January 31, 2020, 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 with 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, significant fluctuations in exchange rates between the U.S. dollar and foreign currencies have adversely affected, and may adversely affect in the future, our operating results. Any future weakening of foreign currency exchange rates against the U.S. dollar would likely result in additional adverse impact on our revenue.

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

Our international activities account for a substantial portion of our revenue and profits, a substantial portion of our employees work in non-U.S. locations, 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, which could increase due to the current geopolitical climate, and other regulatory or contractual limitations on our ability to sell or develop our products and services in certain foreign markets;
- changes and instability in government policies and international trade arrangements that could adversely affect the ability of U.S.-based companies to conduct business in non-U.S. 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, we currently comply with a number of EU regulations that govern our sales, facilities and employees located in the U.K. There continues to be considerable regulatory uncertainty regarding the impact of Brexit on the laws and regulations that we will need to comply with in the U.K. post-Brexit.

Another example is the ongoing efforts of the Chinese government to more closely regulate network security. In that respect, a Cyber Security Law came into effect on June 1, 2017. The Cyber Security Law promotes utilization of “secure and reliable” network products and services, requires the sale of certain key network equipment and network security products to be subject to security certification, and imposes data localization measures and various network security measures relevant to a vaguely-defined scope of “critical information infrastructure.” Among those network security measures is a requirement that certain network products and services procured by operators of “critical information infrastructure” undergo a formal security assessment in order to evaluate their “security” and “controllability.” The specific technical requirements of the security assessment have still not been fully defined. Regulations that are still in draft form contemplate more far-reaching data localization measures, which would require a security assessment be conducted for any business in China to share personal information or a vaguely-defined scope of “important information” with overseas parties.

Also, on January 1, 2016, an Anti-Terrorism Law came into effect in China 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 are required to verify the identities of customers and prohibited from providing 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.

There is also significant uncertainty about the future relationship between the U.S. and various other countries, most significantly China, with respect to trade policies, treaties, government regulations, sanctions and tariffs. The current U.S. presidential administration is pursuing substantial changes to U.S. foreign trade policy with respect to China, the EU, Mexico and other countries, including the possibility of imposing greater restrictions on international trade, restrictions on sales and technology transfers, including those countries and companies determined to be involved in activities contrary to the national security or foreign or economic policy interests of the U.S., and significant increases of tariffs on goods imported into the U.S. Given the relatively fluid regulatory environment in both China and the U.S. and uncertainty regarding how the U.S. and foreign governments will act with respect to tariffs, international trade agreements and policies and national security interests, a trade war, further governmental action related to tariffs or international trade policies, or additional tax or other regulatory changes or enforcement practices could occur in the future and could directly and adversely impact our financial results and results of operations.

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.

We have outstanding indebtedness in the form of unsecured notes and may incur other debt in the future, which may adversely affect our financial condition and future financial results.

We have \$4.0 billion in unsecured notes outstanding as well as an additional unsecured promissory note with an outstanding principal amount of \$270 million owed to Dell. We also have a \$1.0 billion unsecured revolving credit facility, which is currently undrawn, and a \$2.0 billion senior unsecured 364-day term loan facility, which, as of January 31, 2020, had an outstanding balance of \$1.5 billion (collectively, the “Credit Facilities”). Our current and any future debt may adversely affect our financial condition and future financial results by, among other things:

- requiring the dedication of a portion of our expected cash flow from operations to service our indebtedness, thereby reducing the amount of expected cash flow available for other purposes, including capital expenditures and acquisitions; and
- limiting our flexibility in planning for, or reacting to, changes in our business and our industry.

The terms of our unsecured notes and Credit Facilities impose restrictions on us and require us to maintain compliance with specified and customary covenants. Our ability to comply with these covenants may be affected by events beyond our control, including prevailing economic, financial, and industry conditions. If we breach any of the covenants and do not obtain a waiver from the lenders or note holders, then, subject to applicable cure periods, any outstanding indebtedness may be declared immediately due and payable.

In addition, any actual or anticipated changes to our credit ratings, including any announcement that our credit ratings are under review by any rating agency, may negatively impact the value and liquidity of both our debt and equity securities. Under certain circumstances, if our credit ratings are downgraded or other negative action is taken, the interest rate payable by us and the cost of borrowing under our Credit Facilities could increase. Downgrades in our credit ratings could also affect the terms of and restrict our ability to obtain additional financing in the future. In addition, upon the occurrence of certain downgrades of the ratings of our unsecured notes, we may be required to repurchase our unsecured notes at a repurchase price equal to 101% of the aggregate principal plus any accrued and unpaid interest on the date of purchase.

Additionally, our parent company, Dell, currently has a significant level of debt financing. Accordingly, negative changes to Dell’s credit rating could also negatively impact our credit rating and the value and liquidity of any future debt we might raise. Refer to “Liquidity and Capital Resources” 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 for more information on our outstanding indebtedness.

Our current research and development efforts may not produce significant revenue 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 NSX virtual networking, hyperconverged infrastructure, subscription and SaaS, security and modern applications platform 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 revenue than we anticipate. Our research and development expenses were approximately 23% of our total revenue during the year ended January 31, 2020. 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 revenue from these investments for several years, if at all.

We are involved in litigation, investigations 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, cybersecurity, privacy, data protection, antitrust, breach of contract, employment, class action, whistleblower, mergers and acquisitions 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 may 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 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 whether there is merit to 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 E 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 litigation.

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 U.S. In addition, we rely on confidentiality and 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, uncertain 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 licenses 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.

We have faced and successfully defended against allegations of copyright infringement and failing to comply with the terms of the open sources General Public License v.2, but we can provide no assurances that we will not face similar lawsuits with respect to our use of open source software in the future, nor what the outcome of any such lawsuits may be.

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, VCPP-integrated virtual desktop and mobile device, cloud and SaaS) 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. 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. From time to time, we may choose to reorganize our go-to-market teams in an effort to better leverage investments in our sales efforts by increasing efficiencies and improving customer coverage. These reorganizations can cause short-term disruptions that may negatively impact sales over one or more fiscal periods. For example, during the first quarter of fiscal 2020, our sales in the Americas grew more slowly than in other geographies, which may have been due in part to a reorganization of our go-to-market resources in that region. There is no assurance that this reorganization or similar reorganizations will not negatively impact sales in future quarters. Further, upon entering into new industry segments, we may choose to go to market with hardware appliances that are integrated with our software—as we did when we entered into the SD-WAN space through our acquisitions of VeloCloud and Nyansa, Inc.—which requires us to rapidly develop, deploy and scale new hardware procurement, supply chain and inventory management processes and product support services and integrate them into our ongoing business systems and controls. Similarly, our plans to launch managed subscription services such as VMware Cloud on AWS and VMware Cloud on Dell EMC will require us to implement new methods to deliver and monitor end user services and adjust our model for releasing product upgrades.

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 revenue could be negatively impacted. Certain of our product initiatives, such as our VCPP 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 revenue from subscriptions is 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 subscription and SaaS products and services, our revenue and license 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 contracts through which we typically sell our established offerings. For example, effective with the fourth quarter of fiscal 2020, we commenced reporting revenue from our subscription and SaaS as a separate revenue line item, breaking out components that had previously been included in our license revenue and services revenue. Prior period amounts have been reclassified to conform with current period presentation. As a result, the rate of growth in our license revenue, which has been viewed as a leading indicator of our business performance may appear to be negatively impacted while the growth in subscription and SaaS revenue may not appear as robust because such revenue is recognized ratably over time as customers consume our subscription-based products. 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 or be subject to other suppliers' 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. Further, our use of open-source software in our offerings can make our products and services vulnerable to additional security risks not posed by proprietary products. 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. VMware products and services are also subject to known and unknown security vulnerabilities resulting from integration with products or services of other companies (such as applications, operating systems or semi-conductors). For example, vulnerabilities in certain microprocessors were publicly announced in 2018 under the names Spectre, Meltdown and Foreshadow. 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, all of which could negatively impact our business, operating results and stock price.

Our subscription and SaaS offerings, which constitute a growing portion of our business, and our initiatives to extend our data center virtualization and container platforms into the public cloud, involve various risks, including, among others, reliance on third-party providers for data center space and colocation services and on public cloud providers to prevent service disruptions.

As we continue to develop and offer subscription and 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 subscription and 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. The expansion of our subscription and SaaS offerings also requires significant investments, and our operating margins, results of operations and operating cash flows may be adversely affected if our new offerings are not widely adopted by customers.

Additionally, our subscription and SaaS offerings rely upon third-party providers to supply data center space, equipment maintenance and other colocation services and our initiatives to extend our virtualization and container platforms into the public cloud rely upon the ability of our public cloud and VCPP partners to maintain continuous service availability and protect customer data on their 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 and contractual provisions with our third-party providers and public cloud partners may limit our recourse against the third-party provider or public cloud partner responsible for such failure. 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 subscription and SaaS offerings would be impaired.

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 have begun 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, Dell, 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 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.

Two of our distributors each accounted for 10% or more of our consolidated revenue during the year ended January 31, 2020. 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 revenue 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.

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 go-to-market and channel partners. Joint ventures are inherently risky and the requirements for close ongoing cooperation and commitments from the joint venture partners 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.

Non-compliance or perceived non-compliance with existing and evolving international and domestic privacy and data protection laws, regulations and standards could result in liability and adversely impact our business.

Our business is subject to regulation by various federal, state and international governmental agencies responsible for monitoring and enforcing privacy and data protection laws. The regulatory framework for privacy issues worldwide is rapidly evolving, as many new laws, regulations and standards regarding the collection, location, use and disclosure of personal information are being adopted, and existing laws and regulations may be subject to new and changing interpretations, creating uncertainty and additional legal obligations for ourselves, our partners, vendors and customers for the foreseeable future. For example, the EU's General Data Protection Regulation (the "GDPR") came into force in May 2018 and established new requirements applicable to the handling of personal data; the California Consumer Privacy Act, which came into effect in January 2020, broadly defines personal information and provides California consumers increased privacy rights and protections; and the EU's proposed e-Privacy Regulation regulates the use of information for marketing purposes and the tracking of individuals' online activities. Additionally, the application of law and regulations to our role as a provider of cloud-based compute infrastructure delivered by third party cloud providers is uncertain. We expect that there will continue to be new proposed laws, regulations and industry standards, including self-regulatory standards advocated by industry groups, concerning privacy, data protection and transfers, and information security in the U.S., EU and other jurisdictions globally, and we cannot yet determine the impacts such future laws, regulations and standards may have on our business or the businesses of our partners, vendors and customers.

We continue to make investments in and enhance our policies and controls across our business relating to how we and our business partners protect, collect and use customer and employee personal data, as U.S. and international regulatory frameworks evolve. Ongoing compliance efforts may increase the cost and complexity of our business relationships and the delivery of our products and services and may negatively impact our business, our ability to run promotions and effectively market our offerings, and the demand for our products and services.

Any failure or perceived failure by us or our business partners to comply with such federal, state or international privacy or data protection laws and regulations, the privacy commitments contained in our contracts or the privacy policies we have posted on our website could subject us to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal liability, penalties or injunctions. For example, failure to comply with the EU's GDPR requirements may lead to fines of up to €20 million or 4% of the annual global revenues of the infringer, whichever is greater. Additionally, as a technology provider, our customers expect that we can demonstrate compliance with current data privacy and data protection laws and regulations, and our inability or perceived inability to do so may adversely impact sales of our products and services, particularly to customers in highly-regulated industries. As a result, our reputation and brand may be harmed, we could incur significant costs, and financial and operating results could be materially adversely affected.

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

Contracts, including contracts entered into by companies we acquire, with many 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. 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.

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 business acquisitions, which could result in an impairment of goodwill or intangibles. As of January 31, 2020, goodwill and amortizable intangible assets were \$9.3 billion and \$1.2 billion, 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 customer orders, fulfilling contractual obligations, performing accounting operations 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, such as 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. For example, during the first quarter of fiscal 2020 we implemented a new lease accounting software in order to facilitate the preparation of financial information related to the adoption of accounting standard updates.

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 U.S. and various foreign jurisdictions. Our domestic and international tax liabilities are subject to the allocation of revenue and expenses in different jurisdictions and the timing of recognizing revenue 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 Dell-owned EMC consolidated group is routinely under audit by the Internal Revenue Service ("IRS"). All U.S. federal income tax matters have been concluded for years through 2015 while VMware was part of the Dell-owned EMC consolidated group. The IRS has started its examination of fiscal years 2015 through 2019 for the Dell consolidated group, which VMware was part of beginning fiscal year 2017. In addition, we are under corporate income tax audits in various states and non-U.S. jurisdictions. 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 may assess us with additional taxes. In addition, regulatory guidance is still forthcoming with respect to the 2017 Tax Cuts and Jobs Act ("2017 Tax Act") and such guidance may adversely impact our tax provision. 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, changes in our business or statutory rates, changing interpretation of existing laws or regulations, the impact of accounting for stock-based compensation and the recognition of excess tax benefits and tax deficiencies within the income tax provision in the period in which they occur, the impact of accounting for business combinations, our acquisition of Pivotal, which was accounted for as a common control transaction, shifts in the amount of earnings in the U.S. compared with other regions in the world and overall levels of income before tax, changes in our international organization, as well as the expiration of statute of limitations and settlements of audits.

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 effective tax rate in the future will depend upon the proportion of our income before provision for income taxes earned in the U.S. and in jurisdictions with a tax rate lower than the U.S. statutory rate. Our non-U.S. earnings are primarily earned by our subsidiaries organized in Ireland where the rate of taxation is lower than our U.S. tax rate, and as such, our annual effective tax rate can be significantly affected by the composition of our earnings in the U.S. and non-U.S. 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 laws in Ireland beginning in 2021. In addition, we will be impacted by changes in tax laws in Bermuda and may be impacted by changes in other jurisdictions in 2019 and through 2021. We may proactively make structural changes in Ireland that may reduce the impact to our future tax rates. Currently, there are certain structural changes in Ireland that may be available to multi-national companies. However, due to the acquisition of

EMC, VMware's parent company, by Dell effective September 7, 2016 (the "Dell Acquisition"), we could be subject to higher tax obligations in the event we executed similar structural changes.

Any other significant changes to U.S. or international tax laws could have a material impact on our effective tax rate, financial condition, operating results and timing and amount of tax payments.

In addition, numerous other countries have recently enacted or are considering enacting changes to tax laws, administrative interpretations, decisions, policies and positions. These changes could adversely affect our effective tax rate or result in higher cash tax liabilities.

Natural disasters, catastrophic events or geo-political conditions could disrupt our business.

Our worldwide operations are dependent on our network infrastructure, internal technology systems and website. Significant portions of our intellectual property and personnel, including our corporate headquarters, are located in the San Francisco Bay Area, a region known for seismic activity. We also have operations in various domestic and international locations that expose us to additional diverse risks. A significant natural disaster, such as an earthquake, fire, flood or other act of God, or pandemics, such as the recent outbreak of the novel coronavirus COVID-19, 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, or pandemics, such as the recent outbreak of COVID-19, or other unanticipated catastrophes, 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 revenue 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 U.S. 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 material effect on our reported results, as well as our processes and related controls, and may retroactively affect previously reported results. For example, during February 2016, the Financial Accounting Standards Board issued ASU 2016-02, Leases (Topic 842). The updated standard required the recognition of a liability for lease obligations and a corresponding right-of-use asset on the balance sheet, and disclosures of certain information regarding leasing arrangements. We adopted this standard beginning with our first quarter of fiscal 2020 and applied it retrospectively at the beginning of the period of adoption through a cumulative-effect adjustment to retained earnings.

Risks Related to Our Relationship with Dell

Our relationship with Dell may adversely impact our business and stock price.

As of January 31, 2020, Dell beneficially owned 30,678,605 shares of our Class A common stock and all 307,221,836 shares of our Class B common stock, representing 80.9% of the total outstanding shares of common stock or 97.5% of the voting power of outstanding common stock held by EMC, and we are considered a "controlled" company under the rules of the NYSE. Accordingly, strategic and business decisions made by Dell can impact our strategic and business decisions and relationships, and public speculation regarding Dell's strategic direction and prospects, as well as our relationship with Dell, can cause our stock price to fluctuate.

For example, during 2018, Dell announced that it was reviewing its strategic opportunities, including a possible business combination with us, a review that led to Dell's exchange of its Class V common stock designed to track our financial performance for its Class C common stock and our payment of a special cash dividend totaling \$11.0 billion. Throughout that year, the stock price of our Class A common stock experienced periods of significant volatility related to public speculation regarding the outcome of Dell's strategic review and the likelihood of its success. Additionally, speculation regarding how our relationship with Dell might be affected by Dell's status as a publicly traded company or additional strategic transactions involving Dell, such as our acquisition of Pivotal in December 2019, creates uncertainty for our stockholders, customers, partners and employees, which could negatively impact sales, make it difficult to attract and retain employees and distract management's focus from executing on other strategic initiatives.

A number of other factors relating to our relationship with Dell could adversely affect our business or our stock price in the future, including:

- Dell is able to control matters requiring our stockholders' approval, including the election of a majority of our directors as described in the risk factors below.
- Dell could implement changes to our business, including changing our commercial relationship with Dell or taking other corporate actions, such as participating in business combinations, that our other stockholders may not view as beneficial.
- We have arrangements with a number of companies that compete with Dell, and our relationship with Dell could adversely affect our relationships with these companies or other customers, suppliers and partners.
- Since the Dell Acquisition, the portion of our bookings that are realized through Dell sales channels has grown more rapidly than our sales through non-Dell resellers and distributors, and we expect this trend to continue. To the extent that we find ourselves relying more heavily upon Dell for our channel sales, Dell's leverage over our sales and marketing efforts may increase and our ability to negotiate favorable go-to-market arrangements with Dell and with other channel partners may decline.
- Dell has a right to approve certain matters under our certificate of incorporation, including acquisitions or investments in excess of \$100 million, and Dell may choose not to consent to matters that our board of directors believes are in the best interests of VMware.
- Synergies and benefits that we expect from our relationship with Dell may not be realized.
- Dell is highly leveraged and commits a substantial portion of its cash flows to servicing its indebtedness. Dell's significant debt could create the perception that Dell may exercise its control over us to limit our growth in favor of its other businesses or cause us to transfer cash to Dell. In addition, if Dell defaults, or appears in danger of defaulting, on its indebtedness, uncertainty as to the impact of such a default on VMware could disrupt our business.
- Investor perceptions of Dell's performance, future plans and prospects could contribute to volatility in the price of our Class A common stock.
- Some of our products compete directly with products sold or distributed by Dell, which could result in reduced sales.

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

As of January 31, 2020, Dell controlled 80.9% of the total outstanding shares of common stock, including all of our outstanding Class B common stock, representing 97.5% of the voting power of our total outstanding common stock. Through its control of the Class B common stock, which is generally entitled to 10 votes per share, Dell 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 Dell 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 or a subsidiary of EMC automatically convert into Class A common stock. Dell's voting control over VMware will continue so long as the shares of Class B common stock it controls continue to represent at least 20% of our outstanding stock. If its 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 Dell effects a 355 Distribution at a time when it holds shares of Class B common stock, its stockholders 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 IRS. In January 2014, the IRS announced in Revenue Procedure 2014-3 that, generally, it would no longer issue private letter rulings on 355 Distributions.

Dell 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 (which is controlled by Dell) or its successor-in-interest, 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 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 Dell) to undertake a tax-free spin-off. If Dell 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.

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

Dell's voting control and its additional rights described above give Dell 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, Dell 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 Dell. Accordingly, shares of Class A common stock may be worth less than they would be if Dell did not maintain voting control over us or if Dell did not have the additional rights described above.

If Dell's level of ownership significantly increases, Dell could unilaterally effect a merger of VMware into Dell 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 January 31, 2020, Dell controlled 80.9% of VMware's outstanding common stock, and Dell's percentage ownership of VMware common stock could increase as a result of repurchases by VMware of its Class A common stock or purchases by Dell. 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 Dell 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 Dell (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. Pursuant to a letter agreement entered into by VMware and Dell on July 1, 2018, until the ten-year anniversary of the agreement, Dell may not purchase or otherwise 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 transaction has been approved in advance by a special committee of the VMware Board of Directors comprised solely of independent and disinterested directors or 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 Dell.

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

We currently engage in a number of related persons transactions with Dell that include joint product development, go-to-market, branding, sales, customer service activities, real estate and various support services, and we expect to engage in additional related persons transactions with Dell to leverage the benefits of our strategic alignment. For example, in December 2019, we acquired Pivotal, a then majority owned subsidiary of Dell and a company in which we held a significant ownership interest. Additionally, in December 2019, personnel in the Dell Technologies Consulting group who provide professional services for VMware product offerings to Dell customers transferred to VMware's professional services group.

We believe that these related persons transactions provide us a unique opportunity to leverage the respective technical expertise, product strengths and market presence of Dell 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 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 Dell, 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 Dell and its subsidiaries to also view us as their competitors.

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

We and Dell are IT infrastructure companies providing products and services that overlap in various areas, including software-based storage, management, hyperconverged infrastructure and cloud computing. Dell competes 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 (which is controlled by Dell) 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.

Dell 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, Dell 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 Dell in markets where we compete with Dell. In addition, Dell maintains significant partnerships with certain of our competitors, including Microsoft.

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 Dell. We partner with a number of companies that compete with Dell in certain markets in which Dell participates. Dell's control of EMC's majority ownership in us may affect our ability to effectively partner with these companies. These companies may favor our competitors because of our relationship with Dell.

Dell competes 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 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 Dell's consolidated tax group, and compared to our historical results as a member of the EMC consolidated tax group, our tax liabilities may increase, fluctuate more widely and be less predictable.

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 or certain of its subsidiaries for state and local income tax purposes, and since the Dell Acquisition, we have been included in Dell's consolidated tax group. Effective as of the close of the Dell Acquisition, we amended our tax sharing agreement with EMC to include Dell. Although our tax sharing agreement provides that our tax liability is calculated primarily as though VMware were a separate taxpayer, certain tax attributes and transactions are assessed using consolidated tax return rules as applied to the Dell consolidated tax group and are subject to other specialized terms under the tax sharing agreement. Pursuant to our agreement, we and Dell 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 Dell's consolidated group for U.S. federal income tax purposes or any other consolidated, combined or unitary group of Dell 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. Consequently, compared to our historical results as a member of the EMC consolidated tax group, the amount of our tax sharing payment compared to our separate return basis liability may increase, vary more widely from period to period and be less predictable. Additionally, the impact of the 2017 Tax Act upon consolidated groups is highly complex and uncertain and its impact must be further interpreted in the context of the tax sharing agreement to determine VMware's tax sharing payment. In April 2019, VMware, Dell and EMC entered into a letter agreement that governs our portion of the one-time transition tax imposed by the 2017 Tax Act on accumulated earnings of foreign subsidiaries.

When we become subject to federal income tax audits as a member of Dell's consolidated group, the tax sharing agreement provides that Dell has authority to control the audit and represent Dell and our interests to the IRS. Accordingly, if we and Dell or its successor-in-interest 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 Dell effects a 355 Distribution or other transaction that is subsequently determined to be taxable, we 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 in 2004, and will continue to be included in Dell's consolidated group for periods in which Dell or its successor-in-interest

beneficially 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 Dell consolidated group for U.S. federal income tax purposes or any other consolidated, combined or unitary group of Dell 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.

During the fourth quarter of fiscal 2020, we completed the acquisition of Pivotal. Pivotal will continue to file its separate tax return for U.S. federal income tax purposes as it left the Dell consolidated tax group at the time of Pivotal's initial public offering ("IPO") in April 2018. Pursuant to a tax sharing agreement, Pivotal historically received payments from Dell for the tax benefits derived from the inclusion of its losses in certain Dell U.S. federal and state group returns. This has reduced the amount of benefit or expense received by Pivotal since the IPO to the amount of benefit or expenses Dell realizes from Pivotal's inclusion on unitary state tax returns.

On December 30, 2019, VMware entered into a second tax sharing agreement with Dell in connection with, and effective as of, the Pivotal acquisition. The tax sharing agreement with Dell, subject to certain exceptions, generally limits VMware's maximum annual tax liability to Dell to the amount VMware would owe on a separate tax return basis.

Also, under the tax sharing agreement, if it is subsequently determined that the tracking stock issued in connection with the Dell Acquisition and which Dell subsequently eliminated through a share exchange constitutes a taxable distribution, we 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 Dell.

Disputes may arise between Dell and us in a number of areas relating to our ongoing relationships, including our reseller, technology and other business agreements with Dell, 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 Dell, and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party.

While we are controlled by Dell, we may not have the leverage to negotiate renewals or 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.

Some of our directors have potential conflicts of interest with Dell.

The Chairman of our Board of Directors, Michael Dell, is also Chairman and CEO of Dell and is a significant stockholder of Dell, and one of our directors, Egon Durbin, is member of the Dell board of directors and managing partner of Silver Lake Partners, which is a significant stockholder of Dell. Another of our directors also holds shares of Dell common stock. Dell, through its controlling voting interest in our outstanding common stock, is entitled to elect 8 of our 9 directors and possesses sufficient voting control to elect the remaining director. Ownership of Dell common stock by our directors and the presence of executive officers or directors of Dell on our board of directors could create, or appear to create, conflicts of interest with respect to matters involving both us and Dell that could have different implications for Dell than they do for us. Our Board has approved resolutions that address corporate opportunities that are presented to our directors that are also directors or officers of Dell. 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 directors of both us and Dell and we may be precluded from pursuing certain growth initiatives.

We are a "controlled company" within the meaning of the New York Stock Exchange rules and, as a result, are relying on exemptions from certain corporate governance requirements that provide protection to stockholders of companies that are not "controlled companies."

Dell owns more than 50% of the total voting power of our common stock and, as a result, we are a "controlled company" under the NYSE corporate governance standards. As a controlled company, we are exempt under the NYSE standards from the obligation to comply with certain NYSE corporate governance requirements, including the requirements:

- that a majority of our board of directors consists of independent directors;
- that we have a corporate governance and nominating committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities;
- that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee's purpose and responsibilities; and

- for an annual performance evaluation of the nominating and governance committee and compensation committee.

While we have voluntarily caused our Compensation and Corporate Governance Committee to currently be composed entirely of independent directors, reflecting the requirements of the NYSE, we are not required to maintain the independent composition of the committee. As a result of our use of the “controlled company” exemptions, holders of our Class A common stock will not have the same protection afforded to stockholders of companies that are subject to all of the NYSE corporate governance requirements.

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

So long as Dell 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, Dell can effectively control and direct our board of directors. Further, the interests of Dell and our other stockholders may diverge. Under these circumstances, it may become difficult for us to recruit independent directors.

Our historical financial information as a majority-owned subsidiary 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 Dell subsidiaries for support services and Dell personnel who are managed by us. The costs incurred by Dell 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 engage with Dell in related party transactions, including agreements regarding the use of Dell’s and our intellectual property and real estate, agreements regarding the sale of goods and services to one another, and agreements for Dell to resell and distribute our products and services to third party customers. If Dell 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 us, including the fact that we could lose the benefit of these arrangements with Dell. There can be no assurance that we would be able to renegotiate these arrangements with Dell 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 Dell. Moreover, our historical financial information is not necessarily indicative of what our financial condition, operating results or cash flows would 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 Dell. During the year ended January 31, 2020, we recognized revenue of \$3.4 billion, and as of January 31, 2020, \$3.8 billion of sales were included in unearned revenue from such transactions with Dell. For additional information, refer to “Our Relationship with Dell” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 and Note D to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K.

Risks Related to Owning Our Class A Common Stock

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

Dell, which beneficially owned 80.9% of our outstanding stock as of January 31, 2020, 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 Dell 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 Dell’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 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, Dell 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 Dell 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 Dell or its successor-in-interest 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.

ITEM 2. PROPERTIES

As of January 31, 2020, we owned or leased the facilities described below:

Location		Approximate Sq. Ft.	Principal Use(s)
Palo Alto, CA	owned:	1,604,769 ⁽¹⁾	Executive and administrative offices, sales and marketing, and R&D
North and Latin American region	leased:	1,820,256	Administrative offices, sales and marketing, R&D and data center
Asia Pacific region	leased:	1,949,679	Administrative offices, sales and marketing, R&D and data center
Europe, Middle East and Africa region	leased:	836,509	Administrative offices, sales and marketing, R&D and data center

⁽¹⁾ Represents all of the right, title and interest purchased in ground leases, which expire in fiscal 2047, covering the property and improvements located at VMware's Palo Alto, California campus.

We believe that our current facilities are suitable for our current employee headcount and will sustain us through fiscal 2021, 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 E 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, investigations 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.

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.

Holders

We had 27 holders of record of our Class A common stock, and three holders of record of our Class B common stock, EMC Corporation ("EMC"), VMW Holdco LLC and EMC Equity Assets LLC, each an indirect wholly owned subsidiary of Dell Technologies Inc. ("Dell"), as of March 17, 2020.

Dividends

Subsequent to our initial public offering in August 2007, we have not declared or paid regular cash dividends on our common stock. On July 1, 2018, we declared a conditional special dividend of \$11.0 billion (the "Special Dividend"). During the fourth quarter of fiscal 2019, the conditions of the Special Dividend were met. The record date for the dividend was December 27, 2018, the dividend payment date was December 28, 2018 and the per share dividend amount was \$26.81.

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 January 31, 2020 were as follows:

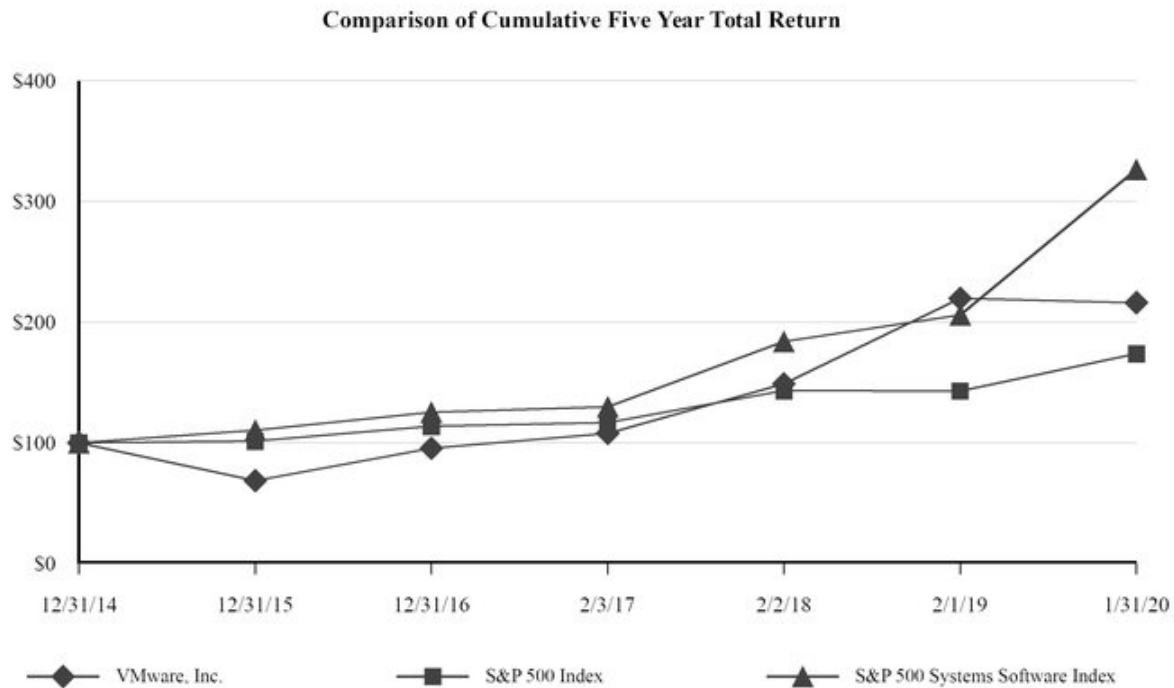
	Total Number of Shares Purchased	Average Price Paid Per Share⁽¹⁾	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Publicly Announced Plans or Programs⁽²⁾
November 2 – November 29, 2019	330,700	\$ 166.29	330,700	\$ 1,000,397,897
November 30 – December 27, 2019	—	—	—	1,000,397,897
December 28, 2019 – January 31, 2020	—	—	—	1,000,397,897
	<u>330,700</u>	<u>\$ 166.29</u>	<u>330,700</u>	<u>1,000,397,897</u>

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

⁽²⁾ Represents the amounts remaining from VMware's \$1.5 billion stock repurchase authorization announced on May 29, 2019 that expires at the end of fiscal 2021. Amounts remaining exclude commissions.

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, 2014 through January 31, 2020, assuming an initial investment of \$100. The stockholder return assumes reinvestment of dividends.



	Base Period 12/31/2014	12/31/2015	12/31/2016	2/3/2017	2/2/2018	2/1/2019	1/31/2020
VMware, Inc.	\$ 100.00	\$ 68.55	\$ 95.41	\$ 107.79	\$ 148.72	\$ 219.56	\$ 215.98
S&P 500 Index	100.00	101.38	113.51	116.65	143.05	142.97	173.79
S&P 500 Systems Software Index	100.00	110.47	125.09	129.57	183.68	205.99	326.19

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.

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR SELECTED CONSOLIDATED FINANCIAL DATA

To better understand our results of operations and financial condition, selected financial data presented below should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7 and the accompanying consolidated financial statements and notes thereto in Part II, Item 8 of this Annual Report on Form 10-K. The historical results are not necessarily indicative of the results to be expected in any future period.

In December 2019, we completed the acquisition of Pivotal Software, Inc. ("Pivotal"), a subsidiary of Dell. The transaction was accounted for as a transaction between entities under common control and required retrospective combination of the entities as if the acquisition had been in effect since the inception of the common control. Refer to Note B to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for more information.

In addition, effective with the fourth quarter of fiscal 2020, management decided to separately present revenue recognized from subscription and software-as-a-service ("SaaS") offerings. Historically, subscription and SaaS revenue was allocated between license revenue and services revenue. Prior period amounts have been reclassified to conform with current period presentation. Refer to Note A to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for more information.

The following selected financial data presents comparative information for prior years, as adjusted for the acquisition of Pivotal (amounts in millions, except per share amounts, and shares in thousands).

	For the Year Ended					Transition Period
	January 31,	February 1,	February 2,	December 31,	December 31,	January 1 to
	2020	2019	2018	2016	2015	February 3, 2017 ⁽⁶⁾
Results of Operations Data:						
Revenue:						
License	\$ 3,181	\$ 3,042	\$ 2,628	\$ 2,350	\$ 2,404	\$ 69
Subscription and SaaS	1,877	1,303	927	687	502	90
Services	5,753	5,268	4,781	4,403	4,015	383
GSA settlement	—	—	—	—	(76)	—
Total revenue	\$ 10,811	\$ 9,613	\$ 8,336	\$ 7,440	\$ 6,845	\$ 542
Operating income (loss)	1,441	1,803	1,463	1,220	930	(77)
Net income (loss) attributable to VMware, Inc. ⁽¹⁾	6,412	1,650	437	969	724	(39)
Net income (loss) per weighted average share attributable to VMware, Inc. common stockholders, basic, for Classes A and B	\$ 15.37	\$ 3.99	\$ 1.07	\$ 2.28	\$ 1.69	\$ (0.09)
Net income (loss) per weighted average share attributable to VMware, Inc. common stockholders, diluted, for Classes A and B	\$ 15.08	\$ 3.92	\$ 1.04	\$ 2.25	\$ 1.68	\$ (0.09)
Weighted average shares, basic, for Classes A and B	417,058	413,769	410,315	424,098	427,422	412,202
Weighted average shares, diluted, for Classes A and B	425,235	421,131	420,887	430,515	431,656	412,202
Cash Flow Data:						
Net cash provided by operating activities	\$ 3,872	\$ 3,657	\$ 3,101	\$ 2,244	\$ 1,926	\$ 329
	January 31,	February 1,	February 2,	February 3,	December 31,	December 31,
	2020	2019	2018 ⁽⁶⁾	2017 ⁽⁶⁾	2016	2015
Balance Sheet Data:						
Cash, cash equivalents and short-term investments ⁽²⁾	\$ 2,915	\$ 3,551	\$ 11,726	\$ 8,527	\$ 8,152	\$ 7,583
Working capital ⁽³⁾⁽⁴⁾	(3,633)	513	9,026	6,021	6,254	5,197
Total assets	26,294	17,593	24,174	19,724	20,009	16,685
Total unearned revenue	9,268	7,439	6,127	5,060	5,318	4,820
Long-term obligations ⁽⁵⁾	3,001	4,242	4,254	1,500	1,500	1,500
Total stockholders' equity	7,009	2,891	11,190	11,624	11,532	8,657

⁽¹⁾ A discrete tax benefit of \$4.9 billion was recognized with a deferred tax asset during fiscal 2020. This deferred tax asset was recognized as a result of the book and tax basis difference on certain of our intellectual property rights (the "IP") transferred to an Irish subsidiary.

- (2) On July 1, 2018, our board of directors declared a conditional \$11.0 billion Special Dividend, payable pro-rata to our stockholders as of the record date. The Special Dividend was paid on December 28, 2018 to stockholders of record as of the close of business on December 27, 2018 in the amount of \$26.81 per outstanding share of our common stock.
- (3) Working capital as of January 31, 2020 was impacted by an increase in the current portion of long-term debt and other borrowings, as well as an increase in unearned revenue when compared to February 1, 2019.
- (4) Working capital as of February 1, 2019 was impacted by a decrease in cash, cash equivalents and short-term investments and an increase in the current portion of unearned revenue when compared to February 2, 2018.
- (5) On August 21, 2017, we issued three series of unsecured senior notes (“Senior Notes”) pursuant to a public debt offering in an aggregate principal amount of \$4.0 billion, which consisted of outstanding principal due on the following dates: \$1.3 billion due August 21, 2020, \$1.5 billion due August 21, 2022 and \$1.3 billion due August 21, 2027. Upon closing, a portion of the net proceeds from the offering was used to repay two of the notes payable to Dell due May 1, 2018 and May 1, 2020 in the aggregate principal amount of \$1.2 billion.
- (6) Effective January 1, 2017, our fiscal year changed from a fiscal year ending on December 31 of each calendar year to a fiscal year consisting of a 52- or 53-week period ending on the Friday nearest to January 31 of each year. The period that began on January 1, 2017 and ended on February 3, 2017 is reflected as a transition period (the “Transition Period”). Our first full fiscal year under the revised fiscal calendar began on February 4, 2017 and ended on February 2, 2018.

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

The following management’s discussion and analysis is provided in addition to the accompanying consolidated financial statements and notes to assist in understanding our results of operations and financial condition.

In December 2019, VMware completed the acquisition of Pivotal, formerly a subsidiary of VMware’s parent company, Dell. The acquisition was accounted for as a transaction between entities under common control in accordance with Accounting Standards Codification 805-50, Business Combination - Related Issues, which requires retrospective combination of entities for all periods presented, as if the combination had been in effect since the inception of common control. As such, prior period financial information has been recast. The recast financial statements combine VMware’s historical financial results with those of Pivotal. Refer to Note B to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for more information.

Additionally, effective with the fourth quarter of fiscal 2020, VMware presented new revenue and new cost of revenue line items entitled, “subscription and SaaS revenue” and “cost of subscription and SaaS revenue” in this Annual Report on Form 10-K. Previously, subscription and SaaS revenue was allocated between license revenue and services revenue on the consolidated statements of income. In light of the Company’s recent acquisitions, management decided that revenue recognized from subscription and SaaS offerings will be presented separately as it provides a more meaningful representation of the nature of its revenue.

Period-over-period changes are calculated based upon the respective underlying, non-rounded data. We refer to our fiscal years ended January 29, 2021, January 31, 2020, February 1, 2019 and February 2, 2018 as “fiscal 2021,” “fiscal 2020,” “fiscal 2019” and “fiscal 2018,” respectively. 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

We originally pioneered the development and application of virtualization technologies with x86 server-based computing, separating application software from the underlying hardware. Information technology (“IT”) driven innovation continues to disrupt markets and industries. Technologies emerge faster than organizations can absorb, creating increasingly complex environments. IT is working at an accelerated pace to harness new technologies, platforms and cloud models, ultimately guiding their business through a digital transformation. To take on these challenges, we are working with customers in the areas of hybrid and multi-cloud, modern applications, networking, security and digital workspaces. Our software provides a flexible digital foundation to enable customers in their digital transformation.

We help customers manage their IT resources across private clouds and complex multi-cloud, multi-device environments by offering solutions across three categories: Software-Defined Data Center (“SDDC”), Hybrid and Multi-Cloud Computing and Digital Workspace—End-User Computing (“EUC”). This portfolio supports and addresses the key IT priorities of our customers including accelerating their cloud journey, modernizing their applications, empowering digital workspaces, transforming networking and embracing intrinsic security. VMware enables customers to digitally transform their operations as they ready their applications, infrastructure and employees for constantly evolving business needs.

Effective with the fourth quarter of fiscal 2020, we are presenting new revenue and cost of revenue line items entitled, “subscription and SaaS revenue” and “cost of subscription and SaaS revenue” in this Annual Report on Form 10-K. Previously, subscription and SaaS revenue was referred to as “hybrid cloud subscription and SaaS revenue” and was allocated between

license revenue and services revenue in the consolidated statements of income. In light of our recent acquisitions, management decided that revenue recognized from subscription and SaaS offerings will be presented separately as it provides a more meaningful representation of the nature of its revenue. The new subscription and SaaS revenue line item includes revenue from our VMware Cloud Provider Program (“VCP”) cloud offerings that are billed to customers on a consumption basis, revenue from Pivotal and other offerings that are billed on a subscription basis as well as revenue from SaaS offerings, such as VMware Workspace ONE (“Workspace ONE”) and VMware Cloud on AWS. Revenue and its related costs from prior periods have been reclassified to conform to the fiscal 2020 presentation.

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. We continue to experience strong renewals, including renewals of our EAs, resulting in additional license sales of both our existing and newer products and solutions.

SDDC or Software-Defined Data Center

Our SDDC technologies form the foundation of our customers’ private cloud environments 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. During fiscal 2020, we continued to see growth in sales of our SDDC solutions. Future sales growth rates may fluctuate period to period, depending largely upon the extent to which SDDC technologies are included in our larger EAs. For example, sales from our management products were positively impacted during fiscal 2020 as a result of being included in some of the larger strategic deals.

Hybrid and Multi-Cloud Computing

Our overarching cloud strategy contains three key 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. Subscription offerings were primarily comprised of VCP and included VMware Cloud Services, which enable customers to run, manage, connect and secure their applications across private and public clouds.

During fiscal 2020, revenue growth in our subscription and SaaS offerings was primarily driven by our Pivotal and VCP offerings. We expect CloudHealth by VMware (“CloudHealth”) and VMware Cloud on AWS to contribute to revenue growth in fiscal 2021.

During the third quarter of fiscal 2020, we acquired Carbon Black, Inc. (“Carbon Black”) to grow our intrinsic security portfolio across network, workload, endpoint, identity and analytics. Also, during the fourth quarter of fiscal 2020, we acquired Pivotal, which we will combine with Heptio technology to deliver an enterprise-grade, Kubernetes-based portfolio for modern applications. We expect both the Carbon Black and Pivotal acquisitions to contribute to the growth of our revenue derived from subscription and SaaS offerings. In addition, we expect operating margin will be negatively impacted in fiscal 2021 as a result of our incremental investment in our subscription and SaaS portfolio, including consideration of the recent Carbon Black and Pivotal acquisitions.

During the fourth quarter of fiscal 2020, we saw an increase in the portion of our sales occurring through our subscription and SaaS-based offerings compared to the portion of our on-premises solutions sold with perpetual licenses. As this trend continues, a greater portion of our revenue will be recognized over time as subscription and SaaS revenue rather than license revenue which is typically recognized in the fiscal period in which sales occur. We expect our license revenue line item to have a slower growth rate than it has historically to the extent customers adopt our cloud-based offerings which are now be recorded in the new subscription and SaaS line item. Accordingly, license revenue may be lower and subject to greater fluctuation in the future driven by a higher percentage of cloud-based offerings being sold, as well as the variability of large deals between fiscal quarters, that historically have had a large license revenue impact. As a result, the rate of growth in our license revenue which has been viewed as a leading indicator of our business performance may be less relevant and we believe that growth in the combination of license and subscription and SaaS revenue will become a better indicator of our future growth prospects.

Digital Workspace—End-User Computing

Our complete EUC solution, Workspace ONE, is a digital workspace platform powered by Unified Endpoint Management and VMware Horizon. Our Unified Endpoint Management business model includes an on-premises solution that we offer through the sale of perpetual licenses, subscription and SaaS solutions. EUC sales continued to increase during fiscal 2020, driven by the adoption of our subscription offerings such as Workspace ONE.

Dell Go-to-Market Initiatives

We continue joint marketing, sales, branding and product development efforts with Dell and other Dell companies to enhance the collective value we deliver to our mutual customers. Our collective business built with Dell continued to create opportunities that benefited our sales during fiscal 2020.

Coronavirus (COVID-19) Impact

The worldwide spread of the COVID-19 virus is expected to result in a global slowdown of economic activity which is likely to decrease demand for a broad variety of goods and services, including from our customers, while also disrupting sales channels and marketing activities for an unknown period of time until the disease is contained. We expect this to have a negative impact on our sales and our results of operations, the size and duration of which we are currently unable to predict.

Results of Operations

Approximately 70% of our sales are denominated in the United States (“U.S.”) dollar, however, in certain countries, we also invoice and collect in various foreign currencies, principally euro; British pound; Japanese yen; Australian dollar; and Chinese renminbi. In addition, we incur and pay operating expenses in currencies other than the U.S. dollar. As a result, our financial statements, including our revenue, operating expenses, unearned revenue and the resulting cash flows derived from the U.S. dollar equivalent of foreign currency transactions, are affected by foreign exchange fluctuations.

Revenue

Our revenue during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31, 2020	February 1, 2019	February 2, 2018	2020 vs. 2019 \$ Change	% Change	2019 vs. 2018 \$ Change	% Change
Revenue:							
License	\$ 3,181	\$ 3,042	\$ 2,628	\$ 139	5%	\$ 414	16%
Subscription and SaaS	1,877	1,303	927	574	44	376	41
Total license and subscription and SaaS	5,058	4,345	3,555	713	16	790	22
Services:							
Software maintenance	4,754	4,351	3,919	403	9	431	11
Professional services	999	917	862	82	9	56	6
Total services	5,753	5,268	4,781	485	9	487	10
Total revenue	\$ 10,811	\$ 9,613	\$ 8,336	\$ 1,198	12	\$ 1,277	15
Revenue:							
United States	\$ 5,405	\$ 4,696	\$ 4,200	\$ 709	15%	\$ 496	12%
International	5,406	4,917	4,136	489	10	781	19
Total revenue	\$ 10,811	\$ 9,613	\$ 8,336	\$ 1,198	12	\$ 1,277	15

Revenue from our subscription offerings consisted primarily of VMware’s VCPP cloud offerings that are billed to customers on a consumption basis and revenue from Pivotal and other offerings that are billed on a subscription basis. Revenue from our SaaS offerings consisted primarily of our Unified Endpoint Management mobile solution within Workspace ONE and newer SaaS offerings, such as VMware Carbon Black Cloud platform, CloudHealth and VMware SD-WAN by VeloCloud.

License revenue relating to the sale of perpetual licenses that are part of a multi-year contract is generally recognized upon delivery of the underlying license, whereas revenue derived from our subscription and SaaS offerings is recognized on a consumption basis or over a period of time.

License Revenue

License revenue increased during fiscal 2020 compared to fiscal 2019 and during fiscal 2019 as compared to fiscal 2018. License revenue continued to benefit from broad-based growth across our diverse product portfolio and across our U.S. and international geographies. Strength in our large EAs also contributed to license revenue growth during fiscal 2020 compared to fiscal 2019.

Subscription and SaaS Revenue

Subscription and SaaS revenue increased in fiscal 2020 compared to fiscal 2019 and fiscal 2019 compared to fiscal 2018. Revenue growth from our Pivotal and VCPP offerings continued to contribute to subscription and SaaS revenue growth during fiscal 2020 and 2019. Strength in our EA renewal business and product offerings acquired as part of our acquisitions such as

VeloCloud Networks, Inc. (“VeloCloud”), also contributed to subscription and SaaS revenue growth during fiscal 2019 compared to fiscal 2018. We continue to expect growth in our subscription and SaaS offerings over the next fiscal year.

Services Revenue

During fiscal 2020 and fiscal 2019, software maintenance revenue continued to benefit from strong renewals of our EAs, maintenance contracts sold in previous periods and additional maintenance contracts sold in conjunction with new software license sales. In each period presented, customers purchased, on a weighted-average basis, approximately three years of support and maintenance with each new license purchased.

Professional services revenue increased 9% in fiscal 2020 and 6% in fiscal 2019. Services we provide through our technical account managers and our continued focus on solution deployments, including our VMware NSX (“NSX”) products, management solutions as well as other emerging technology products, contributed to the increase in professional services revenue. We continue to also focus on enabling our partners to deliver professional services for our solutions and as such, our professional services revenue may vary as we continue to leverage our partners. Timing of service engagements will also impact the amount of professional services revenue we recognize during a period.

Unearned Revenue

Unearned revenue as of the periods presented consisted of the following (table in millions):

	January 31, 2020	February 1, 2019
Unearned license revenue	\$ 19	\$ 15
Unearned subscription and SaaS revenue	1,534	916
Unearned software maintenance revenue	6,700	5,741
Unearned professional services revenue	1,015	767
Total unearned revenue	\$ 9,268	\$ 7,439

Unearned subscription and SaaS revenue is generally recognized over time as customers consume the services or ratably over the term of the subscription, commencing upon provisioning of the service. Previously, unearned subscription and SaaS revenue was allocated between unearned license revenue and unearned software maintenance revenue in prior periods and has been reclassified to conform with current period presentation.

Unearned software maintenance revenue is attributable to our maintenance contracts and is generally recognized over time on a ratably basis over the contract duration. The weighted-average remaining contractual term as of January 31, 2020 was approximately two years. Unearned professional services revenue results primarily from prepaid professional services and is generally recognized as the services are performed.

Remaining Performance Obligations and Backlog

Remaining Performance Obligations

Remaining performance obligations represent the aggregate amount of the transaction price in contracts allocated to performance obligations not delivered, or partially undelivered, as of the end of the reporting period. Remaining performance obligations include unearned revenue, multi-year contracts with future installment payments and certain unfulfilled orders against accepted customer contracts at the end of any given period.

As of January 31, 2020, the aggregate transaction price allocated to remaining performance obligations was \$10.3 billion, of which approximately 54% is expected to be recognized as revenue over the next twelve months and the remainder thereafter. As of February 1, 2019, the aggregate transaction price allocated to remaining performance obligations was \$8.7 billion, of which approximately 55% was expected to be recognized as revenue during fiscal 2020, and the remainder thereafter.

Backlog

Backlog is comprised of unfulfilled purchase orders or unfulfilled executed agreements at the end of a given period and is net of related estimated rebates and marketing development funds. As of January 31, 2020, our total backlog was \$18 million. Backlog primarily consists of licenses, maintenance and services. Our backlog related to licenses was \$5 million, which we generally expect to deliver and recognize as revenue during the following quarter. The amount excluded from the remaining performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs was not material as of January 31, 2020.

As of February 1, 2019, total backlog was approximately \$449 million and our backlog related to licenses was approximately \$147 million. Backlog totaling \$34 million as of February 1, 2019 was excluded from the remaining

performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs.

The amount and composition of backlog will fluctuate period to period, and backlog is managed based upon multiple considerations, including product and geography. We do not believe the amount of backlog is indicative of future sales or revenue or that the mix of backlog at the end of any given period correlates with actual sales performance of a particular geography or particular products and services.

Cost of License Revenue, Cost of Subscription and SaaS Revenue, Cost of Services Revenue and Operating Expenses

Our cost of services revenue and operating expenses primarily reflected increasing cash-based employee-related expenses, driven by incremental growth in salaries and headcount, both organic and through acquisitions, across most of our income statement expense categories for fiscal 2020. We expect increases in cash-based employee-related expenses to continue.

Cost of License Revenue

Cost of license revenue primarily consists of the cost of fulfillment of our SD-WAN offerings, royalty costs in connection with technology licensed from third-party providers and amortization of intangible assets. The cost of fulfillment of our software and hardware SD-WAN offerings includes personnel costs and related overhead associated with the physical and electronic delivery of our products.

Cost of license revenue during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Cost of license revenue	\$ 165	\$ 149	\$ 133	\$ 16	11%	\$ 16	12 %
Stock-based compensation	1	1	2	—	45	(1)	(50)
Total expenses	\$ 166	\$ 150	\$ 135	\$ 16	11	\$ 15	11
% of License revenue	5%	5%	5%				

Cost of license revenue increased in fiscal 2020 compared to fiscal 2019 and in fiscal 2019 compared to fiscal 2018, but remained relatively consistent as a percentage of license revenue.

Cost of Subscription and SaaS Revenue

Cost of subscription and SaaS revenue primarily includes personnel costs and related overhead associated with the physical and electronic delivery of our products and all hosted services supporting our SaaS offerings. Additionally, cost of services revenue includes depreciation of equipment supporting our subscription and SaaS offerings.

Cost of subscription and SaaS revenue during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Cost of subscription and SaaS revenue	\$ 387	\$ 273	\$ 195	\$ 114	42%	\$ 78	40%
Stock-based compensation	13	7	5	6	83	2	46
Total expenses	\$ 400	\$ 280	\$ 200	\$ 120	43	\$ 80	40
% of Subscription and SaaS revenue	21%	21%	22%				

Cost of subscription and SaaS revenue increased during fiscal 2020 compared to fiscal 2019. The increase was primarily due to growth in costs associated with hosted services to support our SaaS offerings of \$46 million, resulting from an increase in demand for technical support and services, as well as in increase in cash-based employee-related expenses of \$25 million, driven by incremental growth in headcount and salaries. The increase was also driven by increased equipment, depreciation and facilities costs, as well as increased amortization of intangible assets of \$14 million.

Cost of subscription and SaaS revenue increased during fiscal 2019 compared to fiscal 2018. The increase was primarily due to an increase in costs associated with third-party hosted services of \$35 million to support our SaaS offerings in fiscal 2019, amortization of intangible assets of \$28 million and growth in cash-based employee-related expenses of \$13 million, driven by incremental growth in headcount and salaries.

Cost of Services Revenue

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

Cost of services revenue during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Cost of services revenue	\$ 1,150	\$ 1,064	\$ 1,019	\$ 86	8%	\$ 45	4%
Stock-based compensation	83	58	53	25	42	5	10
Total expenses	\$ 1,233	\$ 1,122	\$ 1,072	\$ 111	10	\$ 50	5
% of Services revenue	21%	21%	22%				

Cost of services revenue increased during fiscal 2020 compared to fiscal 2019. The increase was primarily due to growth in cash-based employee-related expenses of \$65 million, driven by incremental growth in headcount and salaries, as well as an increase in third-party professional services costs of \$16 million, resulting from an increase in demand for technical support and services. Equipment, depreciation and facilities costs of \$12 million, and stock-based compensation expense of \$25 million, primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019, also contributed to the increase.

Cost of services revenue increased during fiscal 2019 compared to fiscal 2018. The increase was primarily due to an increase in cash-based employee-related expenses of \$42 million, driven by incremental growth in headcount and salaries.

Research and Development Expenses

Research and development expenses include the personnel and related overhead associated with the development of our product software and service offerings. We continue to invest in our key growth areas, including NSX and VMware vSAN, while also investing in areas that we expect to be significant growth drivers in future periods, such as VMware Cloud on AWS.

Research and development expenses during the periods presented were as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Research and development	\$ 2,063	\$ 1,782	\$ 1,554	\$ 281	16%	\$ 228	15%
Stock-based compensation	459	391	363	68	17	28	8
Total expenses	\$ 2,522	\$ 2,173	\$ 1,917	\$ 349	16	\$ 256	13
% of Total revenue	23%	23%	23%				

Research and development expenses increased in fiscal 2020 compared to fiscal 2019. The increase was primarily due to growth in cash-based employee-related expenses of \$227 million, driven by incremental growth in salaries and headcount, both organic and through acquisitions. The increase was also driven by an increase of stock-based compensation of \$68 million, primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019, as well as increased equipment, depreciation and facilities related costs of \$51 million, in fiscal 2020.

Research and development expenses increased in fiscal 2019 compared to fiscal 2018. The increase was primarily due to growth in cash-based employee-related expenses of \$173 million in fiscal 2019, driven by incremental growth in headcount and salaries, and an increase in stock-based compensation of \$28 million, primarily driven by an increase in performance stock unit awards granted in fiscal 2019. The increase was also driven by increased equipment, depreciation and facilities-related costs of \$50 million, primarily including costs associated with third-party hosted services related to research and development, and a decrease in capitalized internal-use software development costs of \$26 million.

Sales and Marketing Expenses

Sales and marketing expenses include personnel costs, sales commissions and related overhead associated with the sale and marketing of our license, subscription and SaaS and services offerings, as well as the cost of product launches and marketing initiatives. A significant portion of our sales commissions are deferred and recognized over the expected period of benefit.

Sales and marketing expenses during the periods presented were as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Sales and marketing	\$ 3,384	\$ 3,004	\$ 2,518	\$ 377	13%	\$ 489	19%
Stock-based compensation	293	226	205	69	30	19	9
Total expenses	\$ 3,677	\$ 3,230	\$ 2,723	\$ 446	14	\$ 508	19
% of Total revenue	34%	34%	33%				

Sales and marketing expenses increased in fiscal 2020 compared to fiscal 2019. The increase was primarily due to growth in cash-based employee-related expenses of \$268 million, driven by incremental growth in salaries and headcount, both organic and through acquisitions, as well as higher commission costs resulting from increased sales volume. The increase was also driven by an increase in stock-based compensation of \$69 million in fiscal 2020, primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019, increased amortization of intangible assets of \$39 million, and increased equipment and depreciation of \$27 million. In addition, increased costs incurred for sales enablement-based initiatives of \$17 million and increased marketing costs of \$18 million also were main drivers in the change in sales and marketing expense for fiscal 2020 compared to fiscal 2019.

Sales and marketing expenses increased in fiscal 2019 compared to fiscal 2018. The increase was primarily due to growth in cash-based employee-related expenses of \$363 million in fiscal 2019, driven by incremental growth in headcount and salaries, as well as higher commission costs, resulting from increased sales volume and headcount. The increase during fiscal 2019 was also driven by an increase in amortization of intangible assets of \$40 million, an increase in costs incurred for sales enablement-based initiatives of \$30 million and an increase in travel-related expenses primarily driven by incremental growth in headcount. An increase in equipment, depreciation and facilities-related costs of \$20 million and an increase in stock-based compensation of \$19 million in fiscal 2020, primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019, also contributed to the increase in sales and marketing expenses during fiscal 2019.

General and Administrative Expenses

General and administrative expenses include personnel and related overhead costs to support the business. These expenses include the costs associated with finance, human resources, IT infrastructure and legal, as well as expenses related to corporate costs and initiatives, including certain charitable donations to the VMware Foundation.

General and administrative expenses during the periods presented were as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
General and administrative	\$ 1,125	\$ 729	\$ 638	\$ 396	54%	\$ 91	14%
Stock-based compensation	168	117	84	51	43	33	29
Total expenses	\$ 1,293	\$ 846	\$ 722	\$ 447	53	\$ 124	17
% of Total revenue	12%	9%	9%				

General and administrative expenses increased in fiscal 2020 compared to fiscal 2019. The increase was primarily due to an accrual of \$237 million recognized for the Cirba Inc. patent lawsuit against VMware, as well as growth in cash-based employee-related expenses of \$78 million, driven by incremental growth in headcount and salaries. Additionally, the increase was driven by increased costs of \$59 million, relating to installment payments to certain employees as part of acquisitions, subject to the achievement of specified future employment conditions, increased stock-based compensation expense of \$51 million, primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019, and increased acquisition-related costs of \$32 million, primarily relating to the fiscal 2020 acquisitions. These increases in costs

were partially offset by decreased third-party professional services costs of \$11 million and telecommunication costs of \$10 million.

General and administrative expenses increased in fiscal 2019 compared to fiscal 2018. The increase was primarily due to \$45 million of costs incurred in connection with the Special Dividend and an increase in stock-based compensation of \$33 million, primarily driven by an increase in performance stock unit awards granted in fiscal 2019. An increase in IT-related costs, including telecommunication, of \$23 million also contributed to the increase in general and administrative costs during fiscal 2019. The increase was also driven by growth in cash-based employee-related expenses of \$10 million.

Realignment and Loss on Disposition

Realignment expenses and loss on disposition during the periods presented were as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Realignment and loss on disposition	\$ 79	\$ 9	\$ 104	\$ 70	777%	\$ (95)	(91)%
% of Total revenue	1%	—%	1%				

During the fourth quarter of fiscal 2020, we approved a plan to streamline our operations, with plans to better align business priorities and shift positions to lower cost locations. As a result of these actions, approximately 1,100 positions were eliminated during the year ended January 31, 2020. We recognized \$79 million of severance-related realignment expenses during the year ended January 31, 2020 on the consolidated statements of income. Actions associated with this plan are expected to be completed during fiscal 2021.

During the second quarter of fiscal 2018, we completed the sale of our VMware vCloud Air business to OVH US LLC. The loss recognized in connection with this transaction was \$104 million during fiscal 2018 and included the impairment of deferred commissions of approximately \$13 million.

Investment Income

Investment income during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Investment income	\$ 60	\$ 161	\$ 120	\$ (101)	(63)%	\$ 41	34%
% of Total revenue	1%	2%	1%				

Investment income decreased during fiscal 2020 compared to fiscal 2019. The decrease was primarily due to a decrease in interest income driven by the decline in our cash equivalents and short-term investments as a result of the liquidation of our fixed income investments that were used primarily to fund the \$11.0 billion special cash dividend paid during the fourth quarter of fiscal 2019.

Investment income increased in fiscal 2019 compared to fiscal 2018, primarily driven by increased interest income earned on our cash equivalents and short-term investments resulting from higher yields and from higher average invested balances. During fiscal 2019, our cash, cash equivalents and short-term investments declined significantly as a result of the liquidation of investments used to primarily fund \$11.0 billion Special Dividend paid on December 28, 2018. In connection with the liquidation of investment securities, we recognized a loss of \$53 million.

Interest Expense

Interest expense during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Interest expense	\$ 149	\$ 134	\$ 74	\$ 15	11%	\$ 60	81%
% of Total revenue	1%	1%	1%				

Interest expense increased in fiscal 2020 as compared to fiscal 2019, primarily due to increased interest expense incurred when we entered into the senior unsecured term loan facility in September 2019 (the “Term Loan”).

On August 21, 2017, we issued the Senior Notes pursuant to a public debt offering in the aggregate principal amount of \$4.0 billion. Upon closing, a portion of the net proceeds from the offering was used to repay two of the notes payable to Dell in the aggregate principal amount of \$1.2 billion. Interest expense increased by \$60 million in fiscal 2019 compared to fiscal 2018 due to the issuance of the Senior Notes, offset in part by a reduction in interest expense on the notes payable to Dell.

Other Income (Expense), net

Other income (expense), net during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Other income (expense), net	\$ 86	\$ (1)	\$ 68	\$ 87	(8,700)%	\$ (69)	(101)%
% of Total revenue	1%	—%	1%				

The increase in other income (expense), net in fiscal 2020 as compared to fiscal 2019 was primarily driven by unrealized gains of \$31 million related to our other strategic investments in privately held companies, as well as the net gain of \$31 million resulting from foreign exchange transactions, recognized in fiscal 2020.

The change in other income (expense), net in fiscal 2019 as compared to fiscal 2018 was primarily driven by the absence of gains recognized on two step acquisitions completed in fiscal 2018. During fiscal 2018, we completed two step acquisitions, Wavefront, Inc. (“Wavefront”) and VeloCloud, which resulted in an aggregate gain of \$42 million for the remeasurement of our respective ownership interest in each company. Additionally, an unrealized loss of \$14 million was recognized for an equity security in fiscal 2019, compared to an unrealized gain of \$11 million in fiscal 2018.

Net Loss Attributable to Non-controlling Interests

Net loss attributable to non-controlling interests during the periods presented was as follows (dollars in millions):

	For the Year Ended			Fiscal Year		Fiscal Year	
	January 31,	February 1,	February 2,	2020 vs. 2019		2019 vs. 2018	
	2020	2019	2018	\$ Change	% Change	\$ Change	% Change
Net loss attributable to non-controlling interests	\$ 56	\$ 60	\$ 12	\$ 4	6%	\$ 48	400%
% of Total revenue	1%	1%	—%				

Net loss attributable to non-controlling interests consisted of net loss in Pivotal attributable to the holders of Pivotal’s Class A common stock. Concurrent with the acquisition of Pivotal from Dell, VMware acquired the non-controlling interests in Pivotal from the holders of Pivotal Class A common stock, and as of January 31, 2020 holds 100% of controlling financial interest in Pivotal.

Income Tax Provision

(Amounts in table in millions)	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Income tax provision (benefit)	\$ (4,918)	\$ 239	\$ 1,152
Effective tax rate	N/M	13.1%	73.1%
N/M - Effective tax rate is not considered meaningful.			

During the second quarter of fiscal 2020, we completed an intra-group transfer of our IP to our Irish subsidiary, where our international business is headquartered (the “IP Transfer”). The transaction will change our mix of international income from a lower non-U.S. tax jurisdiction to Ireland, which is subject to a statutory tax rate of 12.5%.

The change in our effective tax rate for fiscal 2020 compared to fiscal 2019 was primarily driven by a discrete tax benefit of \$4.9 billion that was recognized with a deferred tax asset during fiscal 2020. This deferred tax asset was recognized as a result of the book and tax basis difference on the IP transferred to an Irish subsidiary. The tax amortization related to the IP transferred will be recognized in future periods and any amortization that is unused in a particular year can be carried forward indefinitely under Irish tax laws. The deferred tax asset and the tax benefit were measured based on the Irish tax rate expected

to apply in the years the asset will be recovered. We expect to realize the deferred tax asset resulting from the IP Transfer and will assess the realizability of the deferred tax asset periodically. The impact of the transaction to net cash provided by or used in operating, investing and financing activities on our consolidated statements of cash flows during fiscal 2020 was not material.

Our effective income tax rate in fiscal 2019 decreased compared to fiscal 2018 primarily due to a one-time expense of approximately \$900 million in fiscal 2018 resulting from the U.S. Tax Cuts and Jobs Act (the “2017 Tax Act”). Key components of the tax expense relating to the 2017 Tax Act included provisional estimates for the mandatory one-time transition tax on accumulated earnings of foreign subsidiaries (“Transition Tax”) of approximately \$800 million and the remeasurement of our deferred tax assets and liabilities of approximately \$100 million resulting from the reduction in the U.S. statutory corporate tax rate from 35% to 21%, effective January 1, 2018. Due to the timing of the enactment and the complexity involved in applying the provisions of the 2017 Tax Act, we made reasonable estimates for the related tax effects and recorded provisional amounts on our consolidated financial statements for fiscal 2018. During fiscal 2019, we collected and prepared necessary data and finalized our income tax accounting analysis based on the guidance and interpretations issued by the U.S. Treasury Department, the Internal Revenue Service (“IRS”), and other standard-setting bodies, and relevant authorities. The adjustment to the provisional amount was not material.

We are included in Dell’s consolidated tax group for U.S. federal income tax purposes and will continue to be included in Dell’s consolidated tax group for periods in which Dell beneficially 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 Dell 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 tax 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 Dell’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 Dell consolidated tax group for U.S. federal income tax purposes, and our U.S. federal income tax would be reported separately from that of the Dell consolidated tax group.

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

During the fourth quarter of fiscal 2020, we completed the acquisition of Pivotal. Pivotal will continue to file its separate tax return for U.S. federal income tax purposes as it has since left the Dell consolidated tax group at the time of Pivotal’s IPO in April 2018.

Our future effective tax rate will depend upon the proportion of our income before provision for income taxes earned in the U.S. and in jurisdictions with a tax rate lower than the U.S. statutory rate. Our non-U.S. earnings are primarily earned by our subsidiaries organized in Ireland where the rate of taxation is lower than our U.S. tax rate, and as such, our annual effective tax rate can be significantly affected by the composition of our earnings in the U.S. and non-U.S. jurisdictions. Our future effective tax rate is subject to variance arising from changes in international tax laws and may also be significantly affected by such factors, as changes in our business or statutory rates, changing interpretation of existing laws or regulations, the impact of accounting for stock-based compensation and the recognition of excess tax benefits and tax deficiencies within the income tax provision in the period in which they occur, the impact of accounting for business combinations, changes in the composition of earnings in the U.S. compared with other regions in the world and overall levels of income before tax, changes in our international organization, as well as the expiration of statute of limitations and settlements of audits.

Our Relationship with Dell

The information provided below includes a summary of the transactions entered into with Dell and Dell’s consolidated subsidiaries, including EMC (collectively, “Dell”) from the effective date of the Dell Acquisition through January 31, 2020.

Transactions with Dell

We engaged with Dell in the following ongoing related party transactions, which resulted in revenue and receipts, and unearned revenue for us:

- Pursuant to original equipment manufacturer (“OEM”) and reseller arrangements, Dell integrates or bundles our products and services with Dell’s products and sells them to end users. Dell also acts as a distributor, purchasing our standalone products and services for resale to end-user customers through VMware-authorized resellers. Revenue under these arrangements is presented net of related marketing development funds and rebates paid to Dell. In addition, we provide professional services to end users based upon contractual agreements with Dell.
- Dell purchases products and services from us for its internal use.

- From time to time, we and Dell enter into agreements to collaborate on technology projects, and Dell pays us for services or reimburses us for costs incurred by us, in connection with such projects.

Dell purchases our products and services directly from us, as well as through our channel partners. Information about our revenue and receipts, and unearned revenue from such arrangements, for the periods presented consisted of the following (table in millions):

	Revenue and Receipts			Unearned Revenue	
	For the Year Ended			As of	
	January 31, 2020	February 1, 2019	February 2, 2018	January 31, 2020	February 1, 2019
Reseller revenue	\$ 3,288	\$ 2,355	\$ 1,464	\$ 3,787	\$ 2,554
Internal-use revenue	82	41	46	57	29
Collaborative technology project receipts	10	4	—	n/a	n/a

Sales through Dell as a distributor, which is included in reseller revenue, continues to grow rapidly.

Customer deposits resulting from transactions with Dell were \$194 million and \$85 million as of January 31, 2020 and February 1, 2019, respectively.

We engaged with Dell in the following ongoing related party transactions, which resulted in costs to us:

- We purchase and lease products and purchase services from Dell.
- From time to time, we and Dell enter into agreements to collaborate on technology projects, and we pay Dell for services provided to us by Dell related to such projects.
- In certain geographic regions where we do not have an established legal entity, we contract with Dell subsidiaries for support services and support from Dell personnel who are managed by us. The costs incurred by Dell on our behalf related to these employees are charged to us with a mark-up intended to approximate costs that would have been incurred had we contracted for such services with an unrelated third party. These costs are included as expenses on our consolidated statements of income and primarily include salaries, benefits, travel and occupancy expenses. Dell also incurs certain administrative costs on our behalf in the U.S. that are recorded as expenses on our consolidated statements of income.
- In certain geographic regions, Dell files a consolidated indirect tax return, which includes value added taxes and other indirect taxes collected by us from our customers. We remit the indirect taxes to Dell and Dell remits the tax payment to the foreign governments on our behalf.
- From time to time, we invoice end users on behalf of Dell for certain services rendered by Dell. Cash related to these services is collected from the end user by us and remitted to Dell.
- From time to time, we also enter into agency arrangements with Dell that enable us to sell our subscriptions and services, leveraging the Dell enterprise relationships and end customer contracts.

Information about our payments for such arrangements during the periods presented consisted of the following (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Purchases and leases of products and purchases of services ⁽¹⁾	\$ 242	\$ 200	\$ 142
Dell subsidiary support and administrative costs	119	145	212

⁽¹⁾ Amount includes indirect taxes that were remitted to Dell during the periods presented.

We also purchase Dell products through Dell's channel partners. Purchases of Dell products through Dell's channel partners were not significant during the periods presented.

From time to time, we and Dell also enter into joint marketing, sales, branding and product development arrangements, for which both parties may incur costs.

During the fourth quarter of fiscal 2020, we entered into an arrangement with Dell to transfer approximately 250 professional services employees from Dell to us. These employees are experienced in providing professional services delivering

our technology and this transfer centralizes these resources within the Company in order to serve our customers more efficiently and effectively. The transfer was substantially completed during the fourth quarter of fiscal 2020 and did not have a material impact to the consolidated financial statements. We also expect that Dell will resell our consulting solutions.

During the third quarter of fiscal 2019, we acquired technology and employees related to the Dell EMC Service Assurance Suite, which provides root cause analysis management software for communications service providers, from Dell. The purchase of the Dell EMC Service Assurance Suite was accounted for as a transaction by entities under common control. The amount of the purchase price in excess of the historical cost of the acquired assets was recognized as a reduction to retained earnings on the consolidated balance sheets. Transition services were provided by Dell over a period of 18 months, starting from the date of the acquisition, which were not significant.

During the second quarter of fiscal 2018, we acquired Wavefront. Upon closing of the acquisition, Dell was paid \$20 million in cash for its non-controlling ownership interest in Wavefront.

Dell Financial Services (“DFS”)

DFS provided financing to certain of our end users at our end users’ discretion. Upon acceptance of the financing arrangement by both our end users and DFS, amounts classified as trade accounts receivable are reclassified to due from related parties, net on the consolidated balance sheets. Revenue recognized on transactions financed through DFS was recorded net of financing fees. Financing fees on arrangements accepted by both parties were \$66 million, \$40 million and \$25 million during the years ended January 31, 2020, February 1, 2019 and February 2, 2018, respectively.

Due To/From Related Parties, Net

Amounts due to and from related parties, net as of the periods presented consisted of the following (table in millions):

	January 31, 2020	February 1, 2019
Due from related parties, current	\$ 1,618	\$ 1,248
Due to related parties, current ⁽¹⁾	161	158
Due from related parties, net, current	\$ 1,457	\$ 1,090

⁽¹⁾ Includes an immaterial amount related to our current operating lease liabilities due to related parties as of January 31, 2020.

We also recognized an immaterial amount related to non-current operating lease liabilities due to related parties. This amount has been included in operating lease liabilities on the consolidated balance sheet as of January 31, 2020.

Amounts included in due from related parties, net, excluding DFS and tax obligations, includes the current portion of amounts due to and due from related parties. Amounts included in due from related parties, net are generally settled in cash within 60 days of each quarter-end.

Special Dividend

On July 1, 2018, VMware’s board of directors declared a conditional \$11.0 billion Special Dividend, payable pro-rata to VMware stockholders as of the record date. The Special Dividend was paid on December 28, 2018 to stockholders of record as of the close of business on December 27, 2018 in the amount of \$26.81 per outstanding share of VMware common stock. Dell was paid approximately \$9.0 billion in cash as a result of its financial interest in VMware’s common stock as of the record date.

The Special Dividend was paid in connection with the closing of a transaction by Dell pursuant to which holders of Dell Class V common stock, which was designed to track the economic performance of VMware, exchanged the Dell Class V common stock for Dell Class C common stock or cash or both, resulting in the elimination of the Dell Class V common stock. Refer to Note Q to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for more information.

Notes Payable to Dell

On January 21, 2014, we entered into a note exchange agreement with our parent company providing for the issuance of three promissory notes in the aggregate principal amount of \$1.5 billion, which consisted of outstanding principal due on the following dates: \$680 million due May 1, 2018, \$550 million due May 1, 2020 and \$270 million due December 1, 2022.

On August 21, 2017, we repaid two of the notes payable to Dell in the aggregate principal amount of \$1.2 billion, representing repayment of the note due May 1, 2018 at par value and repayment of the note due May 1, 2020 at a discount. The remaining note payable of \$270 million due December 1, 2022 may be prepaid without penalty or premium.

Interest is payable quarterly in arrears at the annual rate of 1.75%. During the years ended January 31, 2020 and February 1, 2019, interest expense and amount paid for interest on the notes payable to Dell was not significant. Interest

expense recognized during the year ended February 2, 2018 was \$16 million. The amount paid for interest related to the Note was \$19 million during the year ended February 2, 2018.

Other Related Party Transactions

Prior to the acquisition of Pivotal, certain members of Pivotal's board of directors were executives of Ford Motor Company ("Ford") and General Electric Company ("GE"), and these companies were customers of Pivotal. During the year ended January 31, 2020, revenue recognized from sales to Ford while it was a related party was not significant. During the years ended February 1, 2019 and February 2, 2018, revenue recognized from sales to Ford while it was a related party was \$12 million and \$31 million, respectively. Accounts receivable related to transactions with Ford was not significant as of February 1, 2019. During the year ended February 1, 2019, revenue recognized from sales to GE while it was a related party was not significant. During the year ended February 2, 2018, revenue recognized from sales to GE while it was a related party was \$11 million. Subsequent to fiscal 2019, GE was no longer a related party. Subsequent to our acquisition of Pivotal, Ford was no longer a related party.

Liquidity and Capital Resources

As of the periods presented, we held cash, cash equivalents and short-term investments as follows (table in millions):

	January 31, 2020	February 1, 2019
Cash and cash equivalents	\$ 2,915	\$ 3,532
Short-term investments	—	19
Total cash, cash equivalents and short-term investments	\$ 2,915	\$ 3,551

Cash equivalents primarily consisted of amounts invested in money market funds. We limit the amount of our investments with any single issuer and monitor the diversity of the portfolio and the amount of investments held at any single financial institution, thereby diversifying our credit risk.

We continue to expect that cash generated by operations will be our primary source of liquidity. We also continue to believe that existing cash, cash equivalents and investments, and our borrowing capacity, together with any cash generated from operations, will be sufficient to fund our operations for at least the next twelve months. As a result of the enactment of the 2017 Tax Act, we have greater flexibility to repatriate foreign earnings in future periods without significant U.S. tax impact. While we believe these cash sources will be sufficient to fund our operations, our overall level of cash needs may be affected by capital allocation decisions that may include the number and size of acquisitions and stock repurchases, among other things. We remain committed to a balanced capital allocation policy through investing in our product and solution offerings, acquisitions and returning capital to stockholders through share repurchases. Additionally, given the unpredictable nature of our outstanding legal proceedings, an unfavorable resolution of one or more legal proceedings, claims, or investigations could have a negative impact on our overall liquidity.

The 2017 Tax Act imposed a Transition Tax and eliminates U.S. Federal taxes on foreign subsidiary distributions. The Transition Tax was calculated on a separate tax return basis. Our unpaid liabilities related to the Transition Tax as of January 31, 2020 was \$545 million, which we expect to pay over the next six years pursuant to the Letter Agreement. Actual tax payments made to Dell pursuant to the tax sharing agreement may differ materially from our total estimated tax liability calculated on a separate tax return basis. The difference between our estimated liability and the amount paid to Dell is recognized as a component of additional paid-in capital, generally in the period in which the consolidated tax return is filed. During fiscal 2020, \$85 million was recognized, primarily due to a reduction in Transition Tax liability based on the terms of the Letter Agreement and certain tax attribute determination made by Dell, and the amount was recognized as a component of additional paid-in capital.

Our cash flows summarized for the periods presented were as follows (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Net cash provided by (used in):			
Operating activities	\$ 3,872	\$ 3,657	\$ 3,101
Investing activities	(2,728)	4,442	(1,524)
Financing activities	(1,707)	(10,580)	1,129
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(2)	1	(3)
Net increase (decrease) in cash, cash equivalents and restricted cash	\$ (565)	\$ (2,480)	\$ 2,703

Operating Activities

Cash provided by operating activities increased by \$215 million during fiscal 2020 compared to fiscal 2019. Cash provided by operating activities benefited from an increase in cash collections due to increased sales. The increase was offset by increased cash payments for operating expenses and employee-related expenses, including salaries, bonuses and commissions, resulting primarily from growth in headcount, as well as decreased investment income from our available-for-sale securities as a result of the liquidation of our fixed income investments used to fund the payment of the \$11.0 billion Special Dividend during the fourth quarter of fiscal 2019.

Cash provided by operating activities increased \$556 million in fiscal 2019 compared to fiscal 2018. Cash provided by operating activities benefited from an increase in cash collections due to increased sales. These positive impacts were partially offset by increased cash payments for employee-related expenses, including salaries, bonuses and commissions, resulting primarily from growth in headcount, as well as increased cash payments for our employee stock purchase plan. Additionally, cash outflows related to interest on the Senior Notes and tax payments were higher in fiscal 2019 compared to fiscal 2018.

Investing Activities

Cash used in investing activities is generally attributable to the purchase of available-for-sale securities, business acquisitions and capital expenditures. Cash provided by investing activities is affected by the sales and maturities of our available-for-sale securities.

Cash used in investing activities increased by \$7.2 billion during fiscal 2020 compared to fiscal 2019, driven primarily by higher business combinations activities during fiscal 2020 primarily due to \$2.0 billion paid to acquire Carbon Black. Additionally, cash used in investing activities was also driven by decreased net proceeds from our available-for-sale securities as a result of the liquidation of our fixed income investments used to fund the payment of the \$11.0 billion special cash dividend during the fourth quarter of fiscal 2019.

Cash provided by investing activities increased \$6.0 billion in fiscal 2019 compared to fiscal 2018, driven primarily by the liquidation of our fixed income investments to fund the Special Dividend during fiscal 2019, partially offset by an increase in cash used in business combinations of \$267 million as compared to fiscal 2018. The increase was also due to an increase of \$57 million in net proceeds from our strategic investments.

Financing Activities

Cash used in financing activities decreased by \$8.9 billion during fiscal 2020 compared to fiscal 2019. The decrease was primarily a result of the payment of the \$11.0 billion Special Dividend during fiscal 2019, as well as the borrowing of \$3.4 billion and repayment of \$1.9 billion of the Term Loan, which resulted in net cash inflow of \$1.5 billion, partially offset by the cash payment for the acquisition of Pivotal during fiscal 2020. The decrease was also driven by proceeds from Pivotal's IPO, net of issuance costs paid, of \$544 million in fiscal 2019.

Cash used in financing activities increased \$11.7 billion in fiscal 2019 compared to fiscal 2018. The increase was primarily due to payment of the \$11.0 billion Special Dividend in fiscal 2019, partially offset by a decrease of \$1.4 billion in repurchases of shares of our Class A common stock in fiscal 2019, as compared to fiscal 2018, due to the temporary suspension of our stock repurchase program. Additionally, the increase in cash used in financing activities was driven by the absence of the net cash proceeds received from the issuance of long-term debt, partially offset by the repayment of two of our outstanding notes payable to Dell in fiscal 2018.

Unsecured Senior Notes

On August 21, 2017, we issued the Senior Notes pursuant to a public debt offering in the aggregate principal amount of \$4.0 billion.

The carrying value of the Senior Notes as of January 31, 2020 was as follows (amounts in millions):

Senior Notes:		
2.30% Senior Note Due August 21, 2020	\$	1,250
2.95% Senior Note Due August 21, 2022		1,500
3.90% Senior Note Due August 21, 2027		1,250
Total principal amount	\$	4,000

Interest is payable semiannually in arrears, on February 21 and August 21 of each year. During each of the years ended January 31, 2020 and February 1, 2019, \$122 million was paid for interest related to the Senior Notes. We used a portion of the net proceeds from the offering to repay certain notes payable to Dell due May 1, 2018 and May 1, 2020.

The Senior Notes also include restrictive covenants that, in certain circumstances, limit our ability to create certain liens, to enter into certain sale and leaseback transactions and to consolidate, merge, sell or otherwise dispose of all or substantially all of our assets.

Revolving Credit Facilities

On September 12, 2017, we entered into an unsecured credit agreement establishing a revolving credit facility with a syndicate of lenders that provides us with a borrowing capacity of up to \$1.0 billion, for general corporate purposes. The credit agreement contains certain representations, warranties and covenants. Commitments under the revolving credit facility are available for a period of five years, which may be extended, subject to the satisfaction of certain conditions, by up to two one-year periods. As of January 31, 2020, there were no outstanding borrowings under the revolving credit facility.

On September 8, 2017, Pivotal entered into a senior secured revolving loan facility in an aggregate principal amount not to exceed \$100 million. The revolving loan facility was amended on May 6, 2019 and terminated on October 22, 2019. During the years ended February 1, 2019 and February 2, 2018, \$15 million and \$20 million, respectively, were borrowed under the revolving loan facility. The total outstanding balance of \$35 million was repaid during the year ended February 1, 2019.

Senior Unsecured Term Loan Facility

On September 26, 2019, we entered into the Term Loan with a syndicate of lenders that provides us with a borrowing capacity of up to \$2.0 billion, for general corporate purposes. We may borrow against the Term Loan two times up to its borrowing capacity of \$2.0 billion until February 7, 2020. The Term Loan matures on the 364th day following the initial funding under the Term Loan. The Term Loan bears interest at the London interbank offered rate plus 0.75% to 1.25%, or an alternate base rate plus 0.00% to 0.25%, depending on our external credit ratings. As of January 31, 2020, the weighted-average interest rate on the outstanding Term Loan was 2.54%.

During the year ended January 31, 2020, we drew down an aggregate of \$3.4 billion and repaid an aggregate of \$1.9 billion. As of January 31, 2020, the outstanding balance on the Term Loan of \$1.5 billion, net of unamortized debt issuance costs, was included in current portion of long-term debt and other borrowings on the consolidated balance sheets, with no remaining amount available for additional borrowings. The Term Loan contains certain representations, warranties and covenants. Commitment fees paid were not significant during the year ended January 31, 2020. Interest expense for the Term Loan, including amortization of issuance costs, was \$15 million during the year ended January 31, 2020.

Note Payable to Dell

Refer to “Our Relationship with Dell” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 for disclosure regarding our note payable to Dell.

Stock Repurchase Program

From time to time, we repurchase stock pursuant to authorized stock repurchase programs in open market transactions as permitted by securities laws and other legal requirements. We are not obligated to purchase any shares under our stock repurchase programs. The timing of any repurchases and the actual number of shares repurchased depends on a variety of factors, including our stock price, cash requirements for operations and business combinations, corporate and regulatory requirements and other market and economic conditions. Purchases can be discontinued at any time we believe additional purchases are not warranted. From time to time, we also purchase stock in private transactions, such as with Dell. All shares repurchased under our stock repurchase programs are retired.

Refer to Note Q to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for stock repurchase authorizations approved by our board of directors for the periods presented.

Off-Balance Sheet Arrangements and Contractual Obligations

Guarantees and Indemnification Obligations

We enter into agreements in the ordinary course of business with, among others, customers, distributors, resellers, system vendors and systems integrators. Most of these agreements require us to indemnify the other party against third-party claims alleging that one of our products infringes or misappropriates a patent, copyright, trademark, trade secret or other intellectual property right. Certain of these agreements require us to indemnify the other party against certain claims relating to property damage, personal injury, or the acts or omissions by us and our employees, agents or representatives.

We have agreements with certain vendors, financial institutions, lessors and service providers pursuant to which we have agreed to indemnify the other party for specified matters, such as acts and omissions by us and our employees, agents, or representatives.

We have procurement or license agreements with respect to technology that we have obtained the right to use in our products and agreements. Under some of these agreements, we have agreed to indemnify the supplier for certain claims that may be brought against such party with respect to our acts or omissions relating to the supplied products or technologies.

We have agreed to indemnify our directors and executive officers, to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or officer. Our by-laws and charter also provide for indemnification of our directors and officers to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or executive officer. We also indemnify certain employees who provide service with respect to employee benefits plans, including the members of the Administrative Committee of the VMware 401(k) Plan, and employees who serve as directors or officers of our subsidiaries.

In connection with certain acquisitions, we have agreed to indemnify the former directors and officers of the acquired company in accordance with the acquired company's by-laws and charter in effect immediately prior to the acquisition or in accordance with indemnification or similar agreements entered into by the acquired company and such persons. We typically purchase a "tail" directors and officers insurance policy, which should enable us to recover a portion of any future indemnification obligations related to the former directors and officers of an acquired company.

We are unable to determine the maximum potential amount under these indemnification agreements due to our limited history with prior indemnification claims and the unique facts and circumstances involved in each particular situation. Historically, costs related to these indemnification provisions have not been significant.

Contractual Obligations

We have various contractual obligations impacting our liquidity. The following represents our contractual obligations as of January 31, 2020 (table in millions):

	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Senior Notes ⁽¹⁾	\$ 4,552	\$ 1,372	\$ 1,686	\$ 98	\$ 1,396
Note payable to Dell ⁽²⁾	283	5	278	—	—
Term Loan ⁽³⁾	1,500	1,500	—	—	—
Future Lease Commitments ⁽⁴⁾	1,202	144	268	178	612
Purchase obligations	255	168	87	—	—
Tax obligations ⁽⁵⁾	545	53	104	227	161
Asset Retirement Obligations	13	1	5	2	5
Sub-Total	8,350	3,243	2,428	505	2,174
Uncertain tax positions ⁽⁶⁾	479				
Total	<u>\$ 8,829</u>				

⁽¹⁾ Consists of principal and interest payments on the Senior Notes. Refer to "Liquidity and Capital Resources" for a discussion of the public debt offering we issued on August 21, 2017 in the aggregate principal amount of \$4.0 billion.

- (2) Consists of principal and interest payments on the outstanding note payable to Dell. Refer to “Liquidity and Capital Resources” for a discussion of the \$270 million note payable we entered into with Dell per the note exchange agreement from January 21, 2014.
- (3) Consists of the principal on the senior unsecured term loan facility (the “Term Loan”). The Term Loan can be repaid any time before October 2020. Given the variable nature of the interest on the Term Loan, including when the repayment will take place, interest payments have been excluded from the table above.
- (4) Consists of both operating and finance leases. Our operating leases are primarily for facility space and land. Amounts in the table above exclude legally binding minimum lease payments for leases signed but not yet commenced of \$361 million, as well as expected sublease income.
- (5) Consists of future cash payments related to the Transition Tax.
- (6) As of January 31, 2020, we had \$479 million of gross uncertain tax benefits, excluding interest and penalties. The timing of future payments relating to these obligations is highly uncertain. Based on the timing and outcome of examinations of our subsidiaries, the result of the expiration of statutes of limitations for specific jurisdictions or the timing and result of ruling requests from taxing authorities, it is reasonably possible that within the next 12 months total unrecognized tax benefits could be potentially reduced by approximately \$17 million.

Critical Accounting Policies and Estimates

In preparing our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”), we are required to make estimates, assumptions and judgments that affect the amounts reported on our financial statements and the accompanying disclosures. Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. We base our estimates, assumptions and judgments on historical experience and various other factors that we believe to be reasonable under the circumstances. These estimates may change, as new events occur and additional information is obtained, and are recognized in the consolidated financial statements as soon as they become known. Actual results could differ from those estimates and any such differences may be material to our financial statements. We believe that the critical accounting policies and estimates set forth below involve a higher degree of judgment and complexity in their application than our other significant accounting policies. Our senior management has reviewed our critical accounting policies and related disclosures with the Audit Committee of the Board of Directors. Historically, our assumptions, judgments and estimates relative to our critical accounting policies have not differed materially from actual results. Refer to Note A to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for information on significant accounting policies and estimates used in the preparation of the consolidated financial statements.

Revenue Recognition

We derive revenue primarily from licensing software under perpetual licenses or consumption-based contracts and related software maintenance and support, software subscriptions (“subscriptions”), hosted services, training and consulting services. We account for a contract with a customer if all criteria defined by the guidance are met, including collectibility of consideration is probable. At inception of a contract with a customer, we evaluate whether the promised products and services represent distinct performance obligations within the context of the contract. Performance obligations that are both capable of being distinct on their own and distinct within the context of the contract are recognized on their own as distinct performance obligations. Performance obligations under which both of these two criteria are not met are recognized as a combined, single performance obligation. Determining whether our licenses, subscriptions and services are considered distinct performance obligations that should be accounted for separately or together often involves assumptions and significant judgments that can have a significant impact on the timing and amount of revenue recognized.

Revenue is recognized upon transfer of control of licenses, subscription or services to our customer in an amount that reflects the consideration we expect to receive in exchange for those licenses, subscriptions or services. Control of a promised license, subscription or service may be transferred to a customer either at a point in time or over time, which affects the timing of revenue recognition. Licenses that represent distinct performance obligations are recognized at a point in time when the software license keys have been made available. Licenses sold as part of our subscriptions that do not represent distinct performance obligations are recognized over time along with the associated services that form a combined performance obligation with the software. Management assesses relevant contractual terms in contracts with customers and applies significant judgment in identifying and accounting for all terms and conditions in certain contracts.

In addition, revenue from on-premises license software sold to OEMs is recognized when the sale to the end user occurs. Revenue is recognized upon reporting by the OEMs of their sales, and for the period where information of the underlying sales has not been made available, revenue is recognized based upon estimated sales. Our VCPP partners license on-premises software from us on a monthly basis under a usage-based model. Revenue recognition is based on fees associated with reported license consumption by the VCPP partners and includes estimates for the period when consumption information has not been

made available. Certain contracts include third-party offerings and revenue may be recognized net of the third-party costs, based upon an assessment as to whether we had control of the underlying third-party offering.

We enter into revenue contracts with multiple performance obligations in which a customer may purchase combinations of licenses, maintenance and support, subscriptions, hosted services, training, consulting services, and rights to future products and services. For contracts with multiple performance obligations, we allocate total transaction value to the identified underlying performance obligations based on relative standalone selling price (“SSP”). We typically estimate SSP of services based on observable transactions when the services are sold on a standalone basis and those prices fall within a reasonable range. We utilize the residual approach to estimate SSP for products or services sold to customers due to highly variable pricing. Changes in assumptions or judgments used in determining standalone selling price could have a significant impact on the timing and amount of revenue we report in a particular period.

Professional services include design, implementation, training and consulting services. Professional services performed by us represent distinct performance obligations as they do not modify or customize licenses sold. These services are not highly interdependent or highly interrelated to licenses sold such that a customer would not be able to use the licenses without the professional services. Revenue from professional services engagements performed for a fixed fee, for which we are able to make reasonably dependable estimates of progress toward completion, is recognized based on progress. We believe this method of measurement provides the closest depiction of our performance in transferring control of the professional services.

Rebate Reserves

We offer rebates to certain channel partners, which are recognized as a reduction to revenue or unearned revenue. Rebates based on actual partner sales are recognized as a reduction to revenue as the underlying revenue is recognized. Rebates earned based upon partner achievement of cumulative level of sales are recognized as a reduction of revenue proportionally for each sale that is required to achieve the target.

The estimated reserves for channel rebates and sales incentives are based on channel partners’ actual performance against the terms and conditions of the programs, historical trends and the value of the rebates. The accuracy of these reserves for these rebates and sales incentives depends on our ability to estimate these items and could have a significant impact on the timing and amount of revenue we report.

Deferred Commissions

Sales commissions, including the employer portion of payroll taxes, earned by our sales force are considered incremental and recoverable costs of obtaining a contract, and are deferred and generally amortized on a straight-line basis over the expected period of benefit. The expected period of benefit is generally determined using the contract term or underlying technology life, if renewals are expected and the renewal commissions are not commensurate with the initial commissions. The determination of the expected period of benefit requires us to make significant estimates and assumptions, including the life of the underlying technology and the estimated period of contract renewal. We believe the assumptions and estimates we have made are reasonable. Differences in the estimated period of benefit could have a significant impact on the timing and amount of amortization expense recognized.

Accounting for Income Taxes

We are included in Dell’s consolidated tax group for U.S. federal income tax purposes and will continue to be included in Dell’s consolidated group for periods in which Dell beneficially 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 Dell 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.

During the fourth quarter of fiscal 2020, we completed the acquisition of Pivotal. Pivotal will continue to file its separate tax return for U.S. federal income tax purposes as it has since left the Dell consolidated tax group at the time of Pivotal’s IPO in April 2018.

Our income tax expense and the related income tax balance sheet accounts is calculated primarily as though we were a separate taxpayer. However, under certain circumstances, transactions between us and Dell are assessed using consolidated tax return rules. The difference between the income taxes payable that is calculated on a separate tax return basis and the amount paid to Dell pursuant to our tax sharing agreement with Dell is presented as a component of additional paid-in capital, generally in the period in which the consolidated return is filed. Our assumptions, judgments and estimates used to calculate our income tax expense considers current tax laws, our interpretation of current tax laws and possible outcomes of current and future audits conducted by foreign and domestic tax authorities.

We establish reserves for income taxes to address potential exposures involving tax positions that could be challenged by federal, state and foreign tax authorities, which may result in proposed assessments. In the ordinary course of our global business there are many intercompany transactions, including the transfer of intellectual property, where the ultimate tax determination could be challenged by the tax authorities. In the instance of transfers of intellectual property, the related deferred tax asset recognized is based on the intellectual property's current fair value. Management applies significant judgment when determining the fair value of the intellectual property, which serves as the tax basis of the deferred tax asset, and in evaluating the associated tax laws in the applicable jurisdictions. Our assumptions, estimates, and judgments used to determine the reserve relating to these positions considers current tax laws, interpretation of current tax laws and possible outcomes of current and future examinations conducted by tax authorities. As part of the Dell consolidated group, and separately, we are subject to the periodic examination of our income tax returns by the IRS and other domestic and foreign tax authorities. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our reserves and any potential adjustments that may result from the current and future examinations. We believe such estimates to be reasonable; however, the final determination from examinations and changes in tax laws could significantly impact the amounts provided for income taxes in the consolidated financial statements.

Our deferred tax assets reflect our estimates of the amount and category of future taxable income, such as income from operations and capital gains, and also take into account valuation allowances that consider other key factors that might restrict our ability to realize the deferred tax assets. Actual operating results and the underlying amount and category of income in future years could render our current assumptions, judgments and estimates of recoverable net deferred taxes inaccurate.

Business Combinations

We allocate the purchase price of acquirees to the identifiable assets acquired, the liabilities assumed, and any noncontrolling interests in an acquiree, which are measured based on the acquisition date fair value. Goodwill is measured as the excess of consideration transferred over the net amounts of the identifiable tangible and intangible assets acquired and the liabilities assumed at the acquisition date.

The allocation of the purchase price requires us to make significant estimates and assumptions, including fair value estimates, to determine the fair value of assets acquired and liabilities assumed and the related useful lives of the acquired assets, when applicable, as of the acquisition date. Although we believe the assumptions and estimates we have made are reasonable, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Examples of critical estimates used in valuing certain of the intangible assets we have acquired or may acquire in the future include but are not limited to:

- future expected cash flows from sales, maintenance agreements and acquired developed technologies;
- the acquired company's trade name and customer relationships as well as assumptions about the period of time the acquired trade name and customer relationships will continue to be used in the combined company's product portfolio; and
- discount rates used to determine the present value of estimated future cash flows.

These estimates are inherently uncertain and unpredictable, and if different estimates were used the purchase price for the acquisition could be allocated to the acquired assets and liabilities differently from the allocation that we have made. Additionally, unanticipated events and circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Exchange Risk

We operate in foreign countries, which expose us to market risk associated with foreign currency exchange rate fluctuations between the U.S. dollar and various foreign currencies, the most significant of which is the euro.

Although approximately 70% of our sales are denominated in the U.S. dollar, we also invoice and collect in various foreign currencies, principally euro, the British pound, the Japanese yen, the Australian dollar, and the Chinese renminbi.

The U.S. dollar is the functional currency for the majority of VMware's foreign subsidiaries, except for certain Pivotal foreign subsidiaries. At the time a non-U.S. dollar transaction is recorded, the value of the transaction is converted into U.S. dollars at the exchange rate in effect for the month in which each order is booked. As a result, the amount of revenue derived from these transactions will be impacted by foreign currency exchange fluctuations.

Additionally, a portion of our operating expenses, primarily the cost of personnel to deliver technical support on our products and professional services, sales and sales support and research and development, are denominated in foreign

currencies, primarily those currencies in which we also invoice and collect. As exchange rates vary, operating results may differ materially from expectations.

To manage the risk associated with fluctuations in foreign currency exchange rates, we utilize derivative financial instruments, principally foreign currency forward contracts (“forward contracts”), as described below.

Cash Flow Hedging Activities. To mitigate our exposure to foreign currency fluctuations resulting from certain operating expenses denominated in certain foreign currencies, we enter into forward contracts annually, which have maturities of twelve months or less. As of January 31, 2020 and February 1, 2019, we had outstanding forward contracts with a total notional value of \$480 million and \$367 million, respectively. The fair value of these forward contracts was not significant as of January 31, 2020 and February 1, 2019.

Forward Contracts Not Designated as Hedges. We enter into forward contracts to offset the foreign currency risk associated with net outstanding monetary asset and liability positions that are traded on a monthly basis and generally have a contractual term of one month. As of January 31, 2020 and February 1, 2019, we had outstanding forward contracts with a total notional value of \$1.1 billion and \$1.2 billion, respectively. The fair value of these forward contracts was not significant as of January 31, 2020 and February 1, 2019.

Sensitivity Analysis. There can be no assurance that our hedging activities will adequately protect us against the risks associated with foreign currency fluctuations. A hypothetical adverse foreign currency exchange rate movement of 10% would have resulted in a potential loss of \$158 million in the fair value of our forward contracts as of January 31, 2020. This sensitivity analysis is based on the notional value of our outstanding forward contracts as of January 31, 2020 and disregards any offsetting gain that may be associated with the underlying foreign-currency denominated assets and liabilities that we hedge.

This analysis also assumes a parallel adverse shift of all foreign currency exchange rates against the U.S. dollar; however, foreign currency exchange rates do not always move in such a manner and actual results may differ materially. We do not, and do not intend to use derivative financial instruments for trading or speculative purposes. Refer to Note L to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for further information.

Interest Rate Risk

Fixed Income Securities

Our fixed income investment portfolio was denominated in U.S. dollars and consisted of various sectors at different maturities. Our primary objective for holding fixed income securities was to achieve an appropriate investment return consistent with preserving principal and managing risk. During the fourth quarter of fiscal 2019, we liquidated our fixed income securities primarily to fund the \$11.0 billion Special Dividend.

Equity Price Risk

Strategic Investments

Our strategic investments include privately held companies which are considered to be in the start-up or development stages and are inherently risky. The technologies or products these companies have under development are typically in the early stages and may never materialize, which could result in a loss of a substantial part of our initial investment in these companies. We account for these investments at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar security of the same issuer. The evaluation is based on information provided by these companies, which is not subject to the same disclosure regulations as U.S. publicly traded companies, and as such, the basis for these evaluations is subject to the timing and accuracy of the data provided. The carrying value of VMware’s strategic investments was \$159 million and \$95 million as of January 31, 2020 and February 1, 2019, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

VMware, Inc.

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Note: All other financial statement schedules are omitted because they are not applicable or the required information is included on the consolidated financial statements or notes thereto.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of VMware, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of VMware, Inc. and its subsidiaries (the “Company”) as of January 31, 2020 and February 1, 2019, and the related consolidated statements of income, of comprehensive income, of stockholders’ equity and of cash flows for each of the three years in the period ended January 31, 2020, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of January 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of January 31, 2020 and February 1, 2019, and the results of its operations and its cash flows for each of the three years in the period ended January 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note A to the consolidated financial statements, the Company changed the manner in which it accounts for leases effective February 2, 2019.

Basis for Opinions

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

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

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

As described in Management’s Annual Report on Internal Control over Financial Reporting, management has excluded Pivotal Software, Inc. (“Pivotal”) from its assessment of internal control over financial reporting as of January 31, 2020, because it was acquired by the Company in a business combination accounted for as a transaction between entities under common control during the year ended January 31, 2020. We have also excluded Pivotal from our audit of internal control over financial reporting. Pivotal is a wholly-owned subsidiary whose total assets and total revenues excluded from management’s assessment

and our audit of internal control over financial reporting represent 13% and 7%, respectively, of the related consolidated financial statement amounts as of and for the year ended January 31, 2020.

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition — Identifying and Evaluating Terms and Conditions in Contracts

As described in Note A to the consolidated financial statements, the Company derives revenue primarily from licensing software under perpetual licenses or consumption-based contracts and related software maintenance and support, software subscriptions ("subscriptions"), hosted services, training, and consulting services. Revenue is recognized upon transfer of control of licenses, subscriptions or services to the customer in an amount that reflects the consideration the Company expects to receive in exchange for those licenses, services or subscriptions. Control of a promised license, subscription or service may be transferred to a customer either at a point in time or over time, which affects the timing of revenue recognition. The Company's contracts with customers may include a combination of licenses, subscriptions and services that are accounted for as distinct performance obligations. Management assesses relevant contractual terms in contracts with customers and applies significant judgment in identifying and accounting for all terms and conditions in certain contracts. For the year ended January 31, 2020, the Company's revenue was \$10.8 billion.

The principal considerations for our determination that performing procedures relating to revenue recognition, specifically the identification and evaluation of terms and conditions in contracts is a critical audit matter are there was significant judgment by management in identifying terms and conditions in certain contracts that impact revenue recognition. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence to determine whether contract terms and conditions, which may impact revenue recognition, were appropriately identified and evaluated by management.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls relating to the identification and evaluation of terms and conditions in revenue contracts that impact revenue recognition. These procedures also included, among others, evaluating the completeness and accuracy of management's identification and evaluation of the terms and conditions in contracts by examining revenue contracts on a test basis and evaluating management's determination of the impact of those terms and conditions on revenue recognition.

Intra-group Transfer of Intellectual Property Rights

As described in Note P to the consolidated financial statements, the Company completed an intra-group transfer of certain of its intellectual property rights (“IP”) to its Irish subsidiary, where its international business is headquartered. As disclosed by management, the transaction resulted in recognition of a discrete tax benefit of \$4.9 billion as a deferred tax asset during the second quarter of fiscal 2020. This deferred tax asset was recognized as a result of the book and tax basis difference on the IP transferred to an Irish subsidiary and was based on the intellectual property’s current fair value. Management applied significant judgment when determining the fair value of the IP, which serves as the tax basis of the deferred tax asset, and in evaluating the associated tax laws in the applicable jurisdictions.

The principal considerations for our determination that performing procedures relating to the intra-group transfer of the IP is a critical audit matter are (i) there was significant judgment by management in determining the fair value of the IP which serves as the tax basis of the deferred tax asset and in evaluating the associated application of tax laws in the applicable jurisdictions, which in turn led to a high degree of auditor judgment, subjectivity and effort in applying procedures relating to the reasonableness of management’s determination of the fair value of the IP which serves as the tax basis of the deferred tax asset and in evaluating the associated application of tax laws in the applicable jurisdictions and (ii) the audit effort also involved the use of professionals with specialized skill and knowledge to assist in evaluating the audit evidence obtained from these procedures.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the accounting for the intra-group transfer of the IP, including controls over management’s review of the underlying agreements and determination of the tax basis, and management’s assessment of the tax laws applicable to the transfer of the IP. These procedures also included, among others, (i) examination of the underlying agreements, (ii) testing the information used in the calculation of the deferred tax asset, including management’s estimate of the fair value of the IP which serves as the tax basis for the deferred tax asset and evaluating the tax laws applicable to the transfer of the IP, and (iii) testing the calculation of the deferred tax asset. Professionals with specialized skill and knowledge were used to assist in the evaluation of management’s determination of the fair value of the IP which serves as the tax basis for the deferred tax asset and applicability of the Irish income tax laws in the applicable jurisdictions.

/s/ PricewaterhouseCoopers LLP

San Jose, California
March 26, 2020

We have served as the Company’s auditor since 2007.

VMware, Inc.
CONSOLIDATED STATEMENTS OF INCOME
(amounts in millions, except per share amounts, and shares in thousands)

	For the Year Ended		
	January 31, 2020	February 1, 2019 ⁽¹⁾	February 2, 2018 ⁽¹⁾
Revenue ⁽²⁾⁽³⁾ :			
License	\$ 3,181	\$ 3,042	\$ 2,628
Subscription and SaaS	1,877	1,303	927
Services	5,753	5,268	4,781
Total revenue	10,811	9,613	8,336
Operating expenses ⁽²⁾⁽⁴⁾ :			
Cost of license revenue	166	150	135
Cost of subscription and SaaS revenue	400	280	200
Cost of services revenue	1,233	1,122	1,072
Research and development	2,522	2,173	1,917
Sales and marketing	3,677	3,230	2,723
General and administrative	1,293	846	722
Realignment and loss on disposition	79	9	104
Operating income	1,441	1,803	1,463
Investment income	60	161	120
Interest expense	(149)	(134)	(74)
Other income (expense), net	86	(1)	68
Income before income tax	1,438	1,829	1,577
Income tax provision (benefit)	(4,918)	239	1,152
Net income	6,356	1,590	425
Less: Net loss attributable to non-controlling interests	(56)	(60)	(12)
Net income attributable to VMware, Inc.	\$ 6,412	\$ 1,650	\$ 437
Net income per weighted-average share attributable to VMware, Inc. common stockholders, basic for Classes A and B	\$ 15.37	\$ 3.99	\$ 1.07
Net income per weighted-average share attributable to VMware, Inc. common stockholders, diluted for Classes A and B	\$ 15.08	\$ 3.92	\$ 1.04
Weighted-average shares, basic for Classes A and B	417,058	413,769	410,315
Weighted-average shares, diluted for Classes A and B	425,235	421,131	420,887
⁽¹⁾ Adjusted to reflect the recast of prior period information due to the Pivotal Software, Inc. (“Pivotal”) acquisition, which was accounted for as a transaction between entities under common control (refer to Note B).			
⁽²⁾ Effective the fourth quarter of fiscal 2020, revenue recognized from subscription and SaaS offerings is being presented separately (refer to Note A).			
⁽³⁾ Includes related party revenue as follows (refer to Note D):			
License	\$ 1,569	\$ 1,176	\$ 715
Subscription and SaaS	342	217	124
Services	1,459	1,003	671
⁽⁴⁾ Includes stock-based compensation as follows:			
Cost of license revenue	\$ 1	\$ 1	\$ 2
Cost of subscription and SaaS revenue	13	7	5
Cost of services revenue	83	58	53
Research and development	459	391	363
Sales and marketing	293	226	205
General and administrative	168	117	84

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

VMware, Inc.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in millions)

	For the Year Ended		
	January 31, 2020	February 1, 2019 ⁽¹⁾	February 2, 2018 ⁽¹⁾
Net income	\$ 6,356	\$ 1,590	\$ 425
Other comprehensive income (loss):			
Changes in market value of available-for-sale securities:			
Unrealized gains (losses), net of tax provision (benefit) of \$—, \$— and (\$5)	—	—	(12)
Reclassification of (gains) losses realized during the period, net of tax (provision) benefit of \$—, \$10 and \$2	—	30	3
Net change in market value of available-for-sale securities	—	30	(9)
Changes in market value of effective foreign currency forward contracts:			
Unrealized gains (losses), net of tax provision (benefit) of \$— for all periods	—	2	1
Reclassification of (gains) losses realized during the period, net of tax (provision) benefit of \$— for all periods	(2)	—	(3)
Net change in market value of effective foreign currency forward contracts	(2)	2	(2)
Foreign currency translation adjustments	—	(26)	35
Total other comprehensive income (loss)	(2)	6	24
Total comprehensive income, net of taxes	6,354	1,596	449
Less: Net loss attributable to the non-controlling interests	(56)	(60)	(12)
Less: Other comprehensive income (loss) attributable to non-controlling interests	—	4	(2)
Comprehensive income attributable to VMware, Inc.	\$ 6,410	\$ 1,652	\$ 463

⁽¹⁾ Adjusted to reflect the recast of prior period information due to the Pivotal acquisition, which was accounted for as a transaction between entities under common control (refer to Note B).

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

VMware, Inc.
CONSOLIDATED BALANCE SHEETS
(amounts in millions, except per share amounts, and shares in thousands)

	January 31, 2020	February 1, 2019 ⁽¹⁾
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,915	\$ 3,532
Short-term investments	—	19
Accounts receivable, net of allowance for doubtful accounts of \$7 and \$6 ⁽¹⁾	1,883	1,723
Due from related parties, net	1,457	1,090
Other current assets	436	305
Total current assets	6,691	6,669
Property and equipment, net	1,280	1,162
Other assets	2,266	1,088
Deferred tax assets	5,556	290
Intangible assets, net	1,172	966
Goodwill	9,329	7,418
Total assets	\$ 26,294	\$ 17,593
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 208	\$ 153
Accrued expenses and other	2,151	1,664
Current portion of long-term debt and other borrowings	2,747	—
Unearned revenue	5,218	4,339
Total current liabilities	10,324	6,156
Note payable to Dell	270	270
Long-term debt	2,731	3,972
Unearned revenue	4,050	3,100
Income tax payable	817	889
Operating lease liabilities	746	—
Other liabilities	347	315
Total liabilities	19,285	14,702
Contingencies (refer to Note E)		
Stockholders' equity:		
Class A common stock, par value \$0.01; authorized 2,500,000 shares; issued and outstanding 110,484 and 110,715 shares	1	1
Class B convertible common stock, par value \$0.01; authorized 1,000,000 shares; issued and outstanding 307,222 and 300,000 shares	3	3
Additional paid-in capital	2,000	2,959
Accumulated other comprehensive loss	(4)	(2)
Retained earnings (Accumulated deficit)	5,009	(1,096)
Total VMware, Inc. stockholders' equity	7,009	1,865
Non-controlling interests	—	1,026
Total stockholders' equity	7,009	2,891
Total liabilities and stockholders' equity	\$ 26,294	\$ 17,593

⁽¹⁾ Adjusted to reflect the recast of prior period information due to the Pivotal acquisition, which was accounted for as a transaction between entities under common control (refer to Note B).

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

VMware, Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	For the Year Ended		
	January 31, 2020	February 1, 2019 ⁽¹⁾	February 2, 2018 ⁽¹⁾
Operating activities:			
Net income	\$ 6,356	\$ 1,590	\$ 425
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	873	727	618
Stock-based compensation	1,017	800	712
Deferred income taxes, net	(5,284)	(110)	303
Unrealized (gain) loss on equity securities, net	(31)	14	—
Loss on disposition	—	7	95
(Gain) loss on disposition of assets, revaluation and impairment, net	(4)	2	(45)
Gain on extinguishment of debt	—	—	(6)
Loss on Dell stock purchase	—	—	2
Other	9	11	5
Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	(119)	(214)	(76)
Other current assets and other assets	(668)	(347)	(455)
Due to/from related parties, net	(374)	(480)	(568)
Accounts payable	35	105	(22)
Accrued expenses and other liabilities	417	290	354
Income taxes payable	(23)	(40)	660
Unearned revenue	1,668	1,302	1,099
Net cash provided by operating activities	3,872	3,657	3,101
Investing activities:			
Additions to property and equipment	(279)	(254)	(276)
Purchases of available-for-sale securities	—	(780)	(4,269)
Sales of available-for-sale securities	—	3,999	2,195
Maturities of available-for-sale securities	—	2,393	1,573
Purchases of strategic investments	(30)	(8)	(37)
Proceeds from disposition of assets	22	41	13
Business combinations, net of cash acquired, and purchases of intangible assets	(2,437)	(938)	(671)
Net cash paid on disposition of a business	(4)	(11)	(52)
Net cash provided by (used in) investing activities	(2,728)	4,442	(1,524)
Financing activities:			
Proceeds from the initial public offering of Pivotal, net of issuance costs paid	—	544	—
Proceeds from issuance of common stock	308	259	131
Net proceeds from issuance of long-term debt	—	—	3,961
Borrowings under term loan, net of issuance costs	3,393	—	—
Borrowings on credit facility, net of debt issuance costs	—	15	19
Repayment of term loan	(1,900)	—	—
Repayment of notes payable to Dell	—	—	(1,225)
Repayments on credit facility	—	(35)	—
Repurchase of common stock	(1,334)	(42)	(1,449)
Shares repurchased for tax withholdings on vesting of restricted stock	(534)	(357)	(351)
Payment for Special Dividend	—	(11,000)	—
Payment to acquire non-controlling interests	(1,666)	—	—
Contribution from Dell	27	44	43
Payment for common control transaction with Dell	—	(8)	—
Principal payments on finance lease obligations	(1)	—	—

Net cash provided by (used in) financing activities	(1,707)	(10,580)	1,129
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2)	1	(3)
Net increase (decrease) in cash, cash equivalents and restricted cash	(565)	(2,480)	2,703
Cash, cash equivalents and restricted cash at beginning of the period	3,596	6,076	3,373
Cash, cash equivalents and restricted cash at end of the period	\$ 3,031	\$ 3,596	\$ 6,076

Supplemental disclosures of cash flow information:

Issuance of VMware Class B common stock for Pivotal Class B common stock held by Dell	\$ 1,101	\$ —	\$ —
Cash paid for interest	134	129	21
Cash paid for taxes, net	369	399	178

Non-cash items:

Changes in capital additions, accrued but not paid	\$ 18	\$ 9	\$ 10
Changes in tax withholdings on vesting of restricted stock, accrued but not paid	(13)	17	(4)

⁽¹⁾ Adjusted to reflect the recast of prior period information due to the Pivotal acquisition, which was accounted for as a transaction between entities under common control (refer to Note B).

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

VMware, Inc.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Class A Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Stockholders' Equity
	Shares	Par Value	Shares	Par Value					
Balance, February 3, 2017 ⁽¹⁾	110	\$ 1	300	\$ 3	\$ 4,115	\$ 7,016	\$ (15)	\$ 505	\$ 11,625
Proceeds from issuance of common stock	2	—	—	—	122	—	—	—	122
Issuance of stock-based awards in acquisition	—	—	—	—	4	—	—	—	4
Repurchase and retirement of common stock	(14)	—	—	—	(1,456)	—	—	—	(1,456)
Issuance of restricted stock	9	—	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(3)	—	—	—	(348)	—	—	—	(348)
Stock-based compensation	—	—	—	—	683	—	—	29	712
Amount due from tax sharing arrangement	—	—	—	—	(4)	—	—	—	(4)
Investment from Dell, net	—	—	—	—	72	—	—	5	77
Total other comprehensive income (loss)	—	—	—	—	—	—	26	(2)	24
Transactions with Pivotal's non-controlling stockholders	—	—	—	—	(17)	—	—	26	9
Net income (loss)	—	—	—	—	—	437	—	(12)	425
Balance, February 2, 2018 ⁽¹⁾	104	1	300	3	3,171	7,453	11	551	11,190
Cumulative effect of adoption of new accounting pronouncements	—	—	—	—	—	(15)	(15)	—	(30)
Proceeds from issuance of common stock	3	—	—	—	188	—	—	—	188
Issuance of stock-based awards in acquisition	—	—	—	—	3	—	—	—	3
Repurchase and retirement of common stock	—	—	—	—	(42)	—	—	—	(42)
Issuance of restricted stock	7	—	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(3)	—	—	—	(373)	—	—	—	(373)
Stock-based compensation	—	—	—	—	731	—	—	69	800
Credit from tax sharing arrangement	—	—	—	—	2	—	—	—	2
Investment from Dell, net	—	—	—	—	(53)	—	—	1	(52)
Total other comprehensive income (loss)	—	—	—	—	—	—	2	4	6
Transactions with Pivotal's non-controlling stockholders	—	—	—	—	154	—	—	461	615
Common control transaction with Dell	—	—	—	—	—	(6)	—	—	(6)
Special Dividend	—	—	—	—	(822)	(10,178)	—	—	(11,000)
Net income (loss)	—	—	—	—	—	1,650	—	(60)	1,590
Balance, February 1, 2019 ⁽¹⁾	111	1	300	3	2,959	(1,096)	(2)	1,026	2,891
Cumulative effect of adoption of new accounting pronouncements	—	—	—	—	—	3	—	—	3
Proceeds from issuance of common stock	2	—	—	—	203	—	—	—	203
Issuance of stock-based awards in acquisition	—	—	—	—	13	—	—	—	13
Repurchase and retirement of common stock	(8)	—	—	—	(1,024)	(310)	—	—	(1,334)
Issuance of restricted stock	8	—	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(3)	—	—	—	(521)	—	—	—	(521)
Stock-based compensation	—	—	—	—	921	—	—	96	1,017
Credit from tax sharing arrangement	—	—	—	—	85	—	—	—	85
Investment from Dell, net	—	—	—	—	13	—	—	9	22

Total other comprehensive income (loss)	—	—	—	—	—	—	(2)	—	(2)
Transactions with Pivotal's non-controlling stockholders	—	—	—	—	(649)	—	—	(1,075)	(1,724)
Issuance of VMware's Class B common stock issued to Dell	—	—	7	—	—	—	—	—	—
Net income (loss)	—	—	—	—	—	6,412	—	(56)	6,356
Balance, January 31, 2020	110	\$ 1	307	\$ 3	\$ 2,000	\$ 5,009	\$ (4)	\$ —	\$ 7,009

(1) Adjusted to reflect the retrospective combination of VMware and Pivotal, as if the combination had been in effect since the inception of common control (refer to Note B).

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

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. Overview and Basis of Presentation***Company and Background***

VMware, Inc. (“VMware” or the “Company”) originally pioneered the development and application of virtualization technologies with x86 server-based computing, separating application software from the underlying hardware. Information technology (“IT”) driven innovation continues to disrupt markets and industries. Technologies emerge faster than organizations can absorb, creating increasingly complex environments. IT is working at an accelerated pace to harness new technologies, platforms and cloud models, ultimately guiding their business through a digital transformation. To take on these challenges, VMware is working with customers in the areas of hybrid and multi-cloud, modern applications, networking, security, and digital workspaces. VMware’s software provides a flexible digital foundation to enable customers in their digital transformations.

Retrospective Combination of Historical Financial Statements

In December 2019, VMware completed the acquisition of Pivotal, a subsidiary of VMware’s parent company, Dell Technologies Inc. (“Dell”). The purchase of the controlling interest from Dell was accounted for as a transaction between entities under common control in accordance with Accounting Standards Codification (“ASC”) 805-50, Business Combination - Related Issues, which requires retrospective combination of entities for all periods presented, as if the combination had been in effect since the inception of common control. The consolidated financial statements of VMware and notes thereto are presented in a combined basis, as if both VMware and Pivotal were under common control for all periods presented. Refer to Note B for more information on VMware’s acquisition of Pivotal.

Basis of Presentation

The consolidated financial statements and accompanying notes have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) for annual financial reporting.

Effective September 7, 2016, Dell (formerly Denali Holding Inc.) acquired EMC Corporation (“EMC”), VMware’s parent company, including EMC’s majority control of VMware (the “Dell Acquisition”). As of January 31, 2020, Dell controlled 80.9% of VMware’s outstanding common stock and 97.5% of the combined voting power of VMware’s outstanding common stock, including 31 million shares of VMware’s Class A common stock and all of VMware’s Class B common stock.

As VMware is a majority-owned and controlled subsidiary of Dell, its results of operations and financial position are consolidated with Dell’s financial statements.

Management believes the assumptions underlying the consolidated financial statements are reasonable. However, the amounts recorded for VMware’s related party transactions with Dell and its consolidated subsidiaries may not be considered arm’s length with an unrelated third party. Therefore, the consolidated financial statements included herein may not necessarily reflect the results of operations, financial position and cash flows had VMware engaged in such transactions with an unrelated third party during all periods presented. Accordingly, VMware’s historical financial information is not necessarily indicative of what the Company’s results of operations, financial position and cash flows will be in the future, if and when VMware contracts at arm’s length with unrelated third parties for products and services the Company receives from and provides to Dell.

Principles of Consolidation

The consolidated financial statements include the accounts of VMware and subsidiaries in which VMware has a controlling financial interest. The portion of results of operations attributable to the non-controlling interests for Pivotal prior to the acquisition was included in net loss attributable to non-controlling interests on the consolidated statements of income for the periods presented. The cumulative portion of the results of operations and changes in the net assets of Pivotal attributable to the non-controlling interests of \$1.0 billion was included in non-controlling interests on the consolidated balance sheet as of February 1, 2019. Concurrent with the acquisition of Pivotal from Dell, VMware acquired the non-controlling interests in Pivotal from the holders of Pivotal Class A common stock, and as of January 31, 2020 holds 100% of the controlling financial interest in Pivotal. The cumulative portion of the results of operations and changes in the net assets of Pivotal attributable to the non-controlling interests through the acquisition date was reclassified to additional paid-in capital on the consolidated balance sheet as of January 31, 2020.

All intercompany transactions and account balances between VMware and its subsidiaries have been eliminated in consolidation. Transactions with Dell and its consolidated subsidiaries are generally settled in cash and are classified on the consolidated statements of cash flows based upon the nature of the underlying transaction.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Use of Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the reported amounts of revenue and expenses during the reporting periods, and the disclosure of contingent liabilities at the date of the financial statements. Estimates are used for, but not limited to, trade receivable valuation, marketing development funds, expected period of benefit for deferred commissions, useful lives assigned to fixed assets and intangible assets, valuation of goodwill and definite-lived intangibles, income taxes, stock-based compensation and contingencies. Actual results could differ from those estimates.

Revenue Recognition

VMware derives revenue primarily from licensing software under perpetual licenses or consumption-based contracts and related software maintenance and support, subscriptions, hosted services, training and consulting services. VMware accounts for a contract with a customer if all criteria defined by ASC 606, Revenue from Contracts with Customers are met, including that collectibility of consideration is probable. At inception of a contract with a customer, the Company evaluates whether the promised products and services represent distinct performance obligations within the context of the contract. Performance obligations that are both capable of being distinct on their own and distinct within the context of the contract are recognized on their own as distinct performance obligations. Performance obligations under which both of these two criteria are not met are recognized as a combined, single performance obligation. Determining whether the Company's licenses, subscriptions and services are considered distinct performance obligations that should be accounted for separately or together often involves assumptions and significant judgments that can have a significant impact on the timing and amount of revenue recognized.

Revenue is recognized upon transfer of control of licenses, subscriptions or services to the customer in an amount that reflects the consideration VMware expects to receive in exchange for those licenses, services or subscriptions. Control of a promised license, subscription or service may be transferred to a customer either at a point in time or over time, which affects the timing of revenue recognition. VMware's contracts with customers may include a combination of licenses, subscriptions and services that are accounted for as distinct performance obligations. Licenses that represent distinct performance obligations are recognized at a point in time when the software license keys have been made available. Licenses sold as part of the Company's subscriptions that do not represent distinct performance obligations are recognized over time along with the associated services that form a combined performance obligation with the software. Management assesses relevant contractual terms in contracts with customers and applies significant judgment in identifying and accounting for all terms and conditions in certain contracts. Certain contracts include third-party offerings and revenue that may be recognized net of the third-party costs, based upon an assessment as to whether VMware had control of the underlying third-party offering. Revenue is recognized net of any taxes invoiced to customers, which are subsequently remitted to governmental authorities.

From time to time, VMware may enter into revenue and purchase contracts with the same customer within a short period of time. VMware evaluates the underlying economics and fair value of the consideration payable to the customer to determine if any portion of the consideration payable to the customer exceeds the fair value of the goods and services received and should be accounted for as a reduction of the transaction price of the revenue contract.

Effective with the fourth quarter of fiscal 2020, VMware is presenting a new revenue line item in this Annual Report on Form 10-K entitled, "subscription and SaaS revenue." Previously, subscription and software-as-a-service ("SaaS") revenue was referred to as "hybrid cloud subscription and SaaS revenue" and was allocated between license revenue and services revenue in the consolidated statements of income. In light of the Company's recent acquisitions, management decided that revenue recognized from subscription and SaaS offerings will be presented separately as it provides a more meaningful representation of the nature of its revenue. The new subscription and SaaS revenue line item includes revenue from VMware Cloud Provider Program ("VCP") cloud offerings that are billed to customers on a consumption basis, revenue from Pivotal and other offerings that are billed on a subscription basis as well as revenue from SaaS offerings, such as VMware Workspace ONE and VMware Cloud on AWS. Revenue and related costs from prior periods have been reclassified to conform to the fiscal 2020 presentation.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes the prior period reclassifications for revenue and the corresponding costs resulting from the presentation of the new revenue line item (amounts in millions):

For the Year Ended February 1, 2019				
	As Previously Reported	Reclassification For New Revenue Line	Pivotal Adjustments⁽¹⁾	As Adjusted
Revenue:				
License	\$ 3,788	\$ (745)	\$ (1)	\$ 3,042
Subscription and SaaS	—	924	379	1,303
Services	5,186	(179)	261	5,268
Operating expenses:				
Cost of license revenue	191	(41)	—	150
Cost of subscription and SaaS revenue	—	198	82	280
Cost of services revenue	1,067	(157)	212	1,122

For the Year Ended February 2, 2018				
	As Previously Reported	Reclassification For New Revenue Line	Pivotal Adjustments⁽¹⁾	As Adjusted
Revenue:				
License	\$ 3,200	\$ (578)	\$ 6	\$ 2,628
Subscription and SaaS	—	708	219	927
Services	4,662	(130)	249	4,781
Operating expenses:				
Cost of license revenue	157	(22)	—	135
Cost of subscription and SaaS revenue	—	134	66	200
Cost of services revenue	984	(112)	200	1,072

⁽¹⁾ Includes adjustments related to the recast of prior periods resulting from the acquisition of Pivotal.

License Revenue

VMware generally sells its license software through distributors, resellers, system vendors, systems integrators and its direct sales force. Performance obligations related to license revenue, including the license portion of term licenses, represent functional intellectual property under which a customer has the legal right to the on-premises license. The license provides significant standalone functionality and is a separate performance obligation from the maintenance and support and professional services sold by VMware. On-premises license revenue is recognized at a point in time, upon delivery and transfer of control of the underlying license to the customer.

License revenue from on-premises license software sold to original equipment manufacturers (“OEMs”) is recognized when the sale to the end user occurs. Revenue is recognized upon reporting by the OEMs of their sales, and for the period where information of the underlying sales has not been made available, revenue is recognized based upon estimated sales.

Subscription and SaaS Revenue

VMware’s subscription and SaaS revenue consists of hosted services, license usage fees from the Company’s VCPP, and perpetual or subscription license sales of its software platform with open source licenses or offerings under which licenses and services are accounted for as combined performance obligations.

VMware’s hosted services consist of certain software offerings sold as a service-based technology without the customer’s ability to take possession of the software over the subscription term. Hosted services are recognized as SaaS revenue over time as customers consume the services or ratably over the term of the subscription, commencing upon provisioning of the service.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

VCPP partners license on-premises software from VMware on a monthly basis under a usage-based model. Generally, contracts with VCPP partners include cancellation rights. Revenue recognition is based on fees associated with reported license consumption by the VCPP partners and includes estimates for the period when consumption information has not been made available.

Subscription license sales of the Company's software platform offering provides customers with a term-based license to its platform, which includes, among other items, open-source software, support, enhancements, upgrades and compatibility to certified systems, all of which are offered on an if-and-when available basis. Subscription revenue is recognized ratably over the contract term beginning on the date that the Company's platform is made available to the customer.

Subscription sales also include offerings sold on a perpetual and term basis where licenses provide customers with access to and the right to utilize the threat intelligence capabilities and ongoing support. VMware considers the software license and access to critical threat intelligence capabilities to be a single performance obligation. Subscription revenue is recognized on a ratable basis over the contract term beginning on the date the software is delivered to the customer.

Subscription licenses sold on a term-basis are generally over a one or three-year duration and invoiced to the customers either upfront, annually, quarterly or monthly.

Services Revenue

VMware's services revenue generally consists of software maintenance and support and professional services. Software maintenance and support offerings entitle customers to receive major and minor product upgrades, on a when-and-if-available basis, and technical support. Maintenance and support services are comprised of multiple performance obligations including updates, upgrades to licenses and technical support. While separate performance obligations are identified within maintenance and support services, the underlying performance obligations generally have a consistent continuous pattern of transfer to a customer during the term of a contract. Maintenance and support services revenue is recognized over time on a ratable basis over the contract duration.

Professional services include design, implementation, training and consulting services. Professional services performed by VMware represent distinct performance obligations as they do not modify or customize licenses sold. These services are not highly interdependent or highly interrelated to licenses sold such that a customer would not be able to use the licenses without the professional services. Revenue from fixed fee professional services engagements is recognized based on progress made toward the total project effort, which can be reasonably estimated. As a practical expedient, VMware recognizes revenue from professional services engagements invoiced on a time and materials basis as the hours are incurred based on VMware's right to invoice amounts for performance completed to date.

Contracts with Multiple Performance Obligations

VMware enters into revenue contracts with multiple performance obligations in which a customer may purchase combinations of licenses, maintenance and support, subscriptions, hosted services, training, consulting services, and rights to future products and services. For contracts with multiple performance obligations, VMware allocates total transaction value to the identified underlying performance obligations based on relative standalone selling price ("SSP"). VMware typically estimates SSP of services based on observable transactions when the services are sold on a standalone basis and those prices fall within a reasonable range. VMware utilizes the residual approach to estimate SSP for products or services sold to customers due to highly variable pricing.

Rebates and Marketing Development Funds

Rebates, which are offered to certain channel partners and represent a form of variable consideration, are accounted for as a reduction to the transaction price on eligible contracts.

Rebates are determined based on eligible sales during the quarter or based on actual achievement to quarterly target sales. The reduction of the aggregate transaction price against eligible contracts is allocated to the applicable performance obligations. The difference between the estimated rebates recognized and the actual amounts paid has not been material to date.

Certain channel partners are also reimbursed for direct costs related to marketing or other services that are defined under the terms of the marketing development programs. Estimated reimbursements for marketing development funds are accounted for as consideration payable to a customer, reducing the transaction price of the underlying contracts. The most likely amount method is used to estimate the marketing fund reimbursements at the end of the quarter and the reduction of transaction price is allocated to the applicable performance obligations. The difference between the estimated reimbursement and the actual amount paid to channel partners has not been material to date.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Returns Reserves

With limited exceptions, VMware's return policy does not allow product returns for a refund. VMware estimates and records reserves for product returns at the time of sale based on historical return rates. Amounts are recorded as a reduction of revenue or unearned revenue. Returns reserves were not material for all periods presented.

Deferred Commissions

Sales commissions, including the employer portion of payroll taxes, earned by VMware's sales force are considered incremental and recoverable costs of obtaining a contract, and are deferred and generally amortized on a straight-line basis over the expected period of benefit. The expected period of benefit is generally determined using the contract term or underlying technology life, if renewals are expected and the renewal commissions are not commensurate with the initial commissions. Sales commissions related to software maintenance and support renewals are deferred and amortized on a straight-line basis over the contractual renewal period.

Foreign Currency Remeasurement and Translation

The United States ("U.S.") dollar is the functional currency of VMware's foreign subsidiaries, except for certain Pivotal foreign subsidiaries. Assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. VMware records net gains and losses resulting from foreign exchange transactions as a component of foreign currency exchange gains and losses in other income (expense), net on the consolidated statements of income. These gains and losses are net of those recognized on foreign currency forward contracts ("forward contracts") not designated as hedges that VMware enters into to partially mitigate its exposure to foreign currency fluctuations. Net gains of \$31 million and \$10 million were recognized during the years ended January 31, 2020 and February 2, 2018, respectively. The net gain recognized during the year ended February 1, 2019 was not significant. VMware records foreign currency translation adjustments in other comprehensive income (loss), and recognized a loss of \$26 million during the year ended February 1, 2019 and a gain of \$35 million during the year ended February 2, 2018. The amount recognized for foreign currency translation during the year ended January 31, 2020 was not significant.

Cash and Cash Equivalents, Short-Term Investments, and Restricted Cash

From time to time, VMware invests primarily in money market funds, highly liquid debt instruments of the U.S. government and its agencies and U.S. and foreign corporate debt securities. All highly liquid investments with maturities of 90 days or less from date of purchase are classified as cash equivalents and all highly liquid investments with maturities of greater than 90 days from date of purchase as short-term investments. Short-term investments are classified as available-for-sale securities. VMware may sell these securities at any time for use in current operations or for other purposes, such as consideration for acquisitions and strategic investments.

When invested, fixed income investments are reported at market value and unrealized gains and losses on these investments, net of tax, are included in accumulated other comprehensive income, a component of stockholders' equity. Realized gains or losses are included on the consolidated statements of income. Gains and losses on the sale of fixed income securities issued by the same issuer and of the same type are determined using the first-in first-out method. When a determination has been made that an other-than-temporary decline in fair value has occurred, the amount of the decline that is related to a credit loss is realized and is included on the consolidated statements of income.

Cash balances that are restricted pursuant to the terms of various agreements are classified as restricted cash and included in other current assets and other assets in the accompanying consolidated balance sheets. Refer to Note I for more information.

Investments in Equity Securities

VMware holds equity securities in publicly and privately held companies. VMware elected to measure securities in privately held companies at cost less impairment, if any, adjusted for observable price changes in orderly transactions for the identical or a similar security of the same issuer. VMware's securities in publicly held companies are generally measured at fair value using quoted prices for identical assets in an active market. All gains and losses on these securities, whether realized or unrealized, are recognized in other income (expense), net on the consolidated statements of income. Refer to Note K for more information.

Allowance for Doubtful Accounts

VMware maintains an allowance for doubtful accounts for estimated losses on uncollectible accounts receivable. The allowance for doubtful accounts considers such factors as creditworthiness of VMware's customers, historical experience, the age of the receivable and current economic conditions. The allowance for doubtful accounts was not significant for all periods presented.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Property and Equipment, Net

Property and equipment, net is recorded at cost. Depreciation commences upon placing the asset in service and is recognized on a straight-line basis over the estimated useful life of the assets, as follows:

Buildings	Term of underlying land lease
Land improvements	15 years
Furniture and fixtures	5 to 10 years
Equipment	3 to 6 years
Software	3 to 8 years
Leasehold improvements	20 years, not to exceed the shorter of the estimated useful life or remaining lease term

Upon retirement or disposition, the asset cost and related accumulated depreciation are removed with any gain or loss recognized on the consolidated statements of income. Repair and maintenance costs that do not extend the economic life of the underlying assets are expensed as incurred.

Capitalized Software Development Costs

Costs associated with internal-use software systems, including those used to provide hosted services, during the application development stage are capitalized. Capitalization of costs begins when the preliminary project stage is completed, management has committed to funding the project, and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalization ceases at the point when the project is substantially complete and is ready for its intended purpose. The capitalized amounts are included in property and equipment, net on the consolidated balance sheets.

Development costs of software to be sold, leased, or otherwise marketed are subject to capitalization beginning when technological feasibility for the product has been established and ending when the product is available for general release. During the years presented, software development costs incurred for products during the time period between reaching technological feasibility and general release were not material and accordingly were expensed as incurred.

Business Combinations

For business combinations, with the exception of acquisition of entities under common control, VMware recognizes the identifiable assets acquired, the liabilities assumed, and any non-controlling interests in an acquiree, which are measured based on the acquisition date fair value. Goodwill acquired is measured as the excess of consideration transferred over the net amounts of the identifiable tangible and intangible assets acquired and the liabilities assumed at the acquisition date.

VMware uses significant estimates and assumptions, including fair value estimates, to determine the fair value of assets acquired and liabilities assumed and the related useful lives of the acquired assets, when applicable, as of the acquisition date. When those estimates are provisional, VMware refines them as necessary during the measurement period. The measurement period is the period after the acquisition date, not to exceed one year, in which VMware may gather and analyze the necessary information about facts and circumstances that existed as of the acquisition date to adjust the provisional amounts recognized. Measurement period adjustments are recorded during the period in which the adjustment amount is determined. All other adjustments are recorded to the consolidated statements of income.

Acquisitions of entities under common control requires retrospective combination of entities for all periods presented, as if the combination had been in effect since the inception of common control. Assets and liabilities transferred are recorded at their historical carrying amounts on the date of the transfer. The difference between purchase consideration and historical value of the net assets on the date of the transfer are recognized in total stockholders' equity on the consolidated balance sheets.

Costs to effect an acquisition are recorded in general and administrative expenses on the consolidated statements of income as the expenses are incurred. Gains recognized for the remeasurement of ownership interest to fair value upon completion of a step acquisition are recorded in other income (expense), net on the consolidated statements of income.

Purchased Intangible Assets and Goodwill

Goodwill is evaluated for impairment during the third quarter of each fiscal year or more frequently if events or changes in circumstances indicate that the carrying value of the asset may not be recoverable. VMware elected to perform a quantitative assessment of goodwill with respect to its one reporting unit. In doing so, VMware compared the enterprise fair value to the carrying amount of the reporting unit, including goodwill. VMware concluded that, to date, there have been no impairments of goodwill.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Purchased intangible assets with finite lives are generally amortized over their estimated useful lives using the straight-line method. VMware reviews intangible assets for impairment whenever events or changes in business circumstances indicate that the carrying amounts of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate.

Derivative Instruments and Hedging Activities

Derivative instruments are measured at fair value and reported as current assets and current liabilities on the consolidated balance sheets, as applicable.

To manage VMware's exposure to foreign currency fluctuations, VMware enters into forward contracts to hedge a portion of VMware's net outstanding monetary asset or liability positions. These forward contracts are generally entered into on a monthly basis, with a typical contractual term of one month. These forward contracts are not designated as hedging instruments under applicable accounting guidance and therefore are adjusted to fair value through other income (expense), net on the consolidated statements of income.

Additionally, VMware enters into forward contracts, which it designates as cash flow hedges to manage the volatility of cash flows that relate to operating expenses denominated in certain foreign currencies. These forward contracts are entered into annually, have maturities of twelve months or less, and are adjusted to fair value through accumulated other comprehensive income, net of tax, on the consolidated balance sheets. When the underlying expense transaction occurs, the gains or losses on the forward contract are subsequently reclassified from accumulated other comprehensive income to the related operating expense line item on the consolidated statements of income.

The Company does not, and does not intend to, use derivative financial instruments for trading or speculative purposes.

Employee Benefit Plans

The Company has a defined contribution program for U.S. employees that complies with Section 401(k) of the Internal Revenue Code. In addition, the Company offers defined contribution plans to employees in certain countries outside the U.S. During the years ended January 31, 2020, February 1, 2019 and February 2, 2018, the Company contributed \$169 million, \$122 million and \$107 million, respectively, to its defined contribution plans.

Advertising

Advertising costs are expensed as incurred. Advertising expense was \$25 million, \$33 million and \$40 million during the years ended January 31, 2020, February 1, 2019 and February 2, 2018, respectively.

Income Taxes

Income taxes as presented herein are calculated on a separate tax return basis, although VMware is included in the consolidated tax return of Dell. However, under certain circumstances, transactions between VMware and Dell are assessed using consolidated tax return rules. Deferred tax assets and liabilities are recognized for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax assets and liabilities are determined based on the difference between the tax basis of assets and liabilities and their reported amounts using enacted tax rates in effect for the year in which the differences are expected to reverse. Tax credits are generally recognized as reductions of income tax provisions in the year in which the credits arise. The measurement of deferred tax assets is reduced by a valuation allowance if, based upon available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

During the fourth quarter of fiscal 2020, VMware completed the acquisition of Pivotal. Pivotal will continue to file its separate tax return for U.S. federal income tax purposes as it has since left the Dell consolidated tax group at the time of Pivotal's initial public offering ("IPO") in April 2018.

The U.S. Tax Cuts and Jobs Act enacted on December 22, 2017 (the "2017 Tax Act") introduced significant changes to U.S. income tax law. During December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act, which allowed for the recognition of provisional tax amounts during a measurement period not to extend beyond one year of the enactment date. Provisional taxes relating to the effect of the tax law changes, including the estimated transition tax and the remeasurement of U.S. deferred tax assets and liabilities, among others, were recognized during fiscal 2018. The Company completed its analysis of the impact of the 2017 Tax Act and recorded immaterial adjustments during the fourth quarter of fiscal 2019.

The Global Intangible Low-Taxed Income ("GILTI") provisions of the 2017 Tax Act require VMware to include in its U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary's tangible assets. GAAP allows the Company to choose between an accounting policy that treats the U.S. tax under GILTI provisions as either a current expense, as incurred, or as a component of the Company's measurement of deferred taxes. VMware has elected to record

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

impacts of GILTI as period costs and recognized the tax impacts associated with GILTI as a current expense on its consolidated statements of income beginning with the year ended February 1, 2019.

The difference between the income taxes payable or receivable that is calculated on a separate return basis and the amount paid to or received from Dell pursuant to VMware's tax sharing agreement is presented as a component of additional paid-in capital, generally in the period in which the consolidated return is filed. Refer to Note P for further information.

Net Income Per Share

Basic net income per share is calculated using the weighted-average number of shares of VMware's common stock outstanding during the period. Diluted net income per share is calculated using the weighted-average number of common stock, including the dilutive effect of equity awards as determined under the treasury stock method. VMware has two classes of common stock, Classes A and B. For purposes of calculating net income per share, VMware uses the two-class method. As both classes share the same rights in dividends, basic and diluted net income per share are the same for both classes.

Concentrations of Risks

Financial instruments, which potentially subject VMware to concentrations of credit risk, consist principally of cash and cash equivalents, short-term investments and accounts receivable. Cash on deposit with banks may exceed the amount of insurance provided on such deposits. These deposits may be redeemed upon demand. VMware places cash and cash equivalents and short-term investments primarily in money market funds and fixed income securities and limits the amount of investment with any single issuer and any single financial institution. VMware held a diversified portfolio of money market funds and fixed income securities, which primarily consisted of various highly liquid debt instruments of the U.S. government and its agencies and U.S. and foreign corporate debt securities. VMware's fixed income investment portfolio was denominated in U.S. dollars and consisted of securities with various maturities.

VMware manages counterparty risk through necessary diversification of the investment portfolio among various financial institutions and by entering into derivative contracts with financial institutions that are of high credit quality.

VMware provides credit to its customers, including distributors, OEMs, resellers, and end-user customers, in the normal course of business. To reduce credit risk, VMware performs periodic credit evaluations, which consider the customer's payment history and financial stability.

As of January 31, 2020 and February 1, 2019, one distributor accounted for 14% and 13%, respectively, of VMware's accounts receivable balance, and a second distributor accounted for 11% and 11%, respectively, of VMware's accounts receivable balance. Another distributor accounted for 10% and 12% of VMware's accounts receivable balance as of January 31, 2020 and February 1, 2019, respectively.

One distributor accounted for 12% 13% and 14% of revenue in each of the years ended January 31, 2020, February 1, 2019 and February 2, 2018, respectively. Another distributor accounted for 10% of revenue for each of the years ended January 31, 2020 and February 2, 2018, respectively, and 12% of revenue for the year ended February 1, 2019.

Accounting for Stock-Based Compensation

VMware restricted stock, including performance stock unit ("PSU") awards, are valued based on the Company's stock price on the date of grant. For those awards expected to vest, which only contain a service vesting feature, compensation cost is recognized on a straight-line basis over the awards' requisite service periods.

PSU awards will vest if certain VMware-designated performance targets, including in certain cases a time-based or market-based vesting component, are achieved. All PSU awards also include a time-based vesting component. If minimum performance thresholds are achieved, each PSU award will convert into VMware's Class A common stock at a defined ratio depending on the degree of achievement of the performance target designated by each individual award. If minimum performance thresholds are not achieved, then no shares will be issued. Based upon the expected levels of achievement, stock-based compensation is recognized on a straight-line basis over the PSU awards' requisite service periods. The expected levels of achievement are reassessed over the requisite service periods and, to the extent that the expected levels of achievement change, stock-based compensation is adjusted and recorded on the consolidated statements of income and the remaining unrecognized stock-based compensation is recognized over the remaining requisite service period.

With the exception of stock options assumed as a part of transactions under common control, the Black-Scholes option-pricing model is used to determine the fair value of VMware's stock option awards and Employee Stock Purchase Plan shares. The Black-Scholes model includes assumptions regarding dividend yields, expected volatility, expected term and risk-free interest rates. These assumptions reflect the Company's best estimates, but these items involve uncertainties based on market and other conditions outside of the Company's control.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

For outstanding stock options assumed as a part of a transaction between entities under common control, equity awards are converted to VMware's Class A common stock and valued at historical carrying amounts.

Leases

During February 2016, the Financial Accounting Standards Board issued ASU 2016-02, Leases ("Topic 842"). The updated standard requires the recognition of a liability for lease obligations and corresponding right-of-use ("ROU") assets on the balance sheet, and disclosures of certain information regarding leasing arrangements. VMware adopted this standard effective February 2, 2019 and applied it retrospectively at the beginning of the period of adoption through a cumulative-effect adjustment to retained earnings. The Company elected to apply practical expedients upon transition to this standard, which allowed the Company to use the beginning of the period of adoption as the date of initial application, and to not reassess lease classification, treatment of initial direct costs, or whether an existing or expired contract contained a lease. Prior period amounts were not recast under this standard.

Upon adoption, VMware recognized ROU assets of \$802 million, a liability for lease obligations of \$778 million, and an immaterial cumulative-effect adjustment to retained earnings, net of tax, as of February 2, 2019. The updated standard did not have a material impact on the consolidated statements of income or net cash provided by or used in operating, investing and financing activities on the consolidated statements of cash flows.

VMware determines if an arrangement contains a lease at inception by evaluating whether the arrangement conveys the right to use an identified asset and whether the Company obtains substantially all economic benefits from and has the ability to direct the use of the asset. ROU assets resulting from operating leases are included in other assets, and operating lease liabilities are included in accrued expenses and other and operating lease liabilities on the consolidated balance sheets. ROU assets resulting from finance leases are included in property and equipment, net, and finance lease liabilities are included in accrued expenses and other and other liabilities on the consolidated balance sheets. The current portion of finance lease liabilities included in accrued expenses and other was not material as of January 31, 2020.

Lease assets and liabilities are measured at the present value of the future minimum lease payments over the lease term at commencement date using the incremental borrowing rate. The incremental borrowing rate is generally determined using factors such as the Treasury yields, the Company's credit rating and interest rates of similar debt instruments with comparable credit ratings, among others.

The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that VMware will exercise that option. Lease expense resulting from the minimum lease payments is amortized on a straight-line basis over the remaining lease term. VMware elected the practical expedient to exclude leasing arrangements with a duration of less than twelve months.

The Company's lease agreements generally do not contain any material residual value guarantees or material restrictive covenants. Certain lease agreements may contain lease and non-lease components, such as common-area maintenance costs. The Company elected to account for these components as a single lease component in determining the lease liability. Variable lease payments, which are primarily comprised of common-area maintenance, utilities and real estate taxes that are passed on from the lessor in proportion to the space leased by the Company, are recognized in operating expenses in the period in which the obligation for those payments are incurred.

The Company subleases certain leased office space to third parties when it determines there is excess leased capacity. Sublease income was \$22 million during the year ended January 31, 2020.

B. Pivotal Acquisition

In December 2019, VMware completed the acquisition of Pivotal at a blended price per share of \$11.71 and an aggregate purchase consideration of \$2.9 billion. The purchase consideration of \$2.9 billion was comprised of \$15.00 per share or \$1.7 billion of cash paid to the non-controlling interest holders of Pivotal's Class A common stock, the exchange of \$1.1 billion of VMware's Class B common stock for Pivotal's Class B common stock held by Dell, at an exchange ratio of 0.055 VMware shares for each Pivotal share, and a \$155 million accrual for amounts owed to dissenting shareholders in connection with the acquisition, which was recorded in accrued expenses and other on the consolidated balance sheet as of January 31, 2020. In recording the repurchase of the non-controlling interest, the Company recognized a reduction of additional paid in capital of \$649 million, which corresponds to the excess of the purchase consideration of \$1.8 billion that was paid and accrued, over the carrying value of the non-controlling interest of \$1.2 billion. In the aggregate, this transaction resulted in a cash payout, net of cash acquired, of \$838 million and the issuance of 7.2 million shares of VMware's Class B common stock to Dell. Pivotal's Class B common stock previously held by VMware was canceled. Following the completion of the acquisition, shares of

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Pivotal Class A common stock ceased to be listed on the New York Stock Exchange and registration of the Pivotal Class A common stock under the Exchange Act was terminated.

The purchase was accounted for as a transaction between entities under common control. Assets and liabilities transferred were recorded at historical carrying amounts of Pivotal on the date of the transfer, except for certain goodwill and intangible assets that were recorded in the amounts previously recognized by Dell for Pivotal in connection with Dell's acquisition of EMC during fiscal 2016. VMware's previous investment in Pivotal, including any unrealized gain or loss previously recognized in other income (expense), net on the consolidated statements of income, were derecognized. Transactions with Pivotal that were previously accounted for as transactions between related parties were eliminated in the consolidated financial statements for all periods presented. All intercompany transactions and account balances between VMware and Pivotal have been eliminated upon consolidation for all periods presented.

The effect of the change from the combination to the consolidated statements of income was as follows (amounts in millions, except per share amounts):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Total revenue	\$ 777	\$ 639	\$ 474
Operating income	(287)	(247)	(239)
Net income	(204)	(832)	(234)
Net income attributable to VMware	(148)	(772)	(222)
Net income per weighted-average share attributable to VMware common stockholders, basic for Classes A and B	\$ (0.63)	\$ (1.95)	\$ (0.56)
Net income per weighted-average share attributable to VMware common stockholders, diluted for Classes A and B	\$ (0.67)	\$ (1.93)	\$ (0.56)
Other comprehensive income (loss)	\$ —	\$ (26)	\$ 35

C. Revenue, Unearned Revenue and Remaining Performance Obligations

Revenue

Receivables

VMware records a receivable when an unconditional right to consideration exists and transfer of control has occurred, such that only the passage of time is required before payment of consideration is due. Timing of revenue recognition may differ from the timing of invoicing to customers.

Payment terms vary based on license, subscription or service offerings and payment is generally required within 30 to 45 days from date of invoicing. Certain performance obligations may require payment before delivery of the license or service to the customer.

Contract Assets

A contract asset is recognized when a conditional right to consideration exists and transfer of control has occurred. Contract assets include fixed fee professional services where transfer of services has occurred in advance of the Company's right to invoice. Contract assets are classified as accounts receivables upon invoicing. Contract assets are included in other current assets on the consolidated balance sheets. Contract assets were \$26 million and \$24 million as of January 31, 2020 and February 1, 2019, respectively. Contract asset balances will fluctuate based upon the timing of the transfer of services, billings and customers' acceptance of contractual milestones.

Contract Liabilities

Contract liabilities consist of unearned revenue, which is generally recorded when VMware has the right to invoice or payments have been received for undelivered products or services.

Customer Deposits

Customer deposits include prepayments from customers related to amounts received for contracts that include certain cancellation rights. Purchased credits eligible for redemption of VMware's hosted services ("cloud credits") are included in customer deposits until the cloud credit is consumed or is contractually committed to a specific hosted service. Cloud credits

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

are redeemable by the customer for the gross value of the hosted offering. Upon contractual commitment for a hosted service, the net value of the cloud credits that are expected to be recognized as revenue when the obligation is fulfilled will be classified as unearned revenue.

As of January 31, 2020, customer deposits related to customer prepayments and cloud credits of \$247 million were included in accrued expenses and other, and \$143 million were included in other liabilities on the consolidated balance sheets. As of February 1, 2019, customer deposits related to customer prepayments and cloud credits of \$239 million were included in accrued expenses and other, and \$60 million were included in other liabilities on the consolidated balance sheets.

Deferred Commissions

Deferred commissions are classified as current or non-current based on the duration of the expected period of benefit. Deferred commissions, including the employer portion of payroll taxes, included in other current assets as of January 31, 2020 and February 1, 2019 were \$13 million and \$15 million, respectively. Deferred commissions included in other assets were \$938 million and \$820 million as of January 31, 2020 and February 1, 2019, respectively.

Amortization expense for deferred commissions was included in sales and marketing on the consolidated statements of income and was \$354 million, \$311 million and \$275 million during the years ended January 31, 2020, February 1, 2019 and February 2, 2018, respectively.

Unearned Revenue

Unearned revenue as of the periods presented consisted of the following (table in millions):

	January 31, 2020	February 1, 2019
Unearned license revenue	\$ 19	\$ 15
Unearned subscription and SaaS revenue	1,534	916
Unearned software maintenance revenue	6,700	5,741
Unearned professional services revenue	1,015	767
Total unearned revenue	<u>\$ 9,268</u>	<u>\$ 7,439</u>

Unearned subscription and SaaS revenue is generally recognized over time as customers consume the services or ratably over the term of the subscription, commencing upon provisioning of the service. Previously, unearned subscription and SaaS revenue was allocated between unearned license revenue and unearned software maintenance revenue in prior periods and has been reclassified to conform with current period presentation.

Unearned software maintenance revenue is attributable to VMware's maintenance contracts and is generally recognized over time on a ratable basis over the contract duration. The weighted-average remaining contractual term as of January 31, 2020 was approximately two years. Unearned professional services revenue results primarily from prepaid professional services and is generally recognized as the services are performed.

Total billings and revenue recognized during the year ended January 31, 2020, were \$8.1 billion and \$6.4 billion, respectively, and did not include amounts for performance obligations that were fully satisfied upon delivery, such as on-premise licenses. During the year ended January 31, 2020, VMware assumed \$154 million in unearned revenue in the acquisition of Carbon Black, Inc. ("Carbon Black").

Total billings and revenue recognized during the year ended February 1, 2019, were \$6.9 billion and \$5.5 billion, respectively, and did not include amounts for performance obligations that were fully satisfied upon delivery, such as on-premise licenses.

Revenue recognized during the year ended February 2, 2018 was \$4.8 billion and did not include amounts for performance obligations that were fully satisfied upon delivery, such as on-premise licenses.

Remaining Performance Obligations

Remaining performance obligations represent the aggregate amount of the transaction price in contracts allocated to performance obligations not delivered, or partially undelivered, as of the end of the reporting period. Remaining performance obligations include unearned revenue, multi-year contracts with future installment payments and certain unfulfilled orders against accepted customer contracts at the end of any given period.

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As of January 31, 2020, the aggregate transaction price allocated to remaining performance obligations was \$10.3 billion, of which approximately 54% is expected to be recognized as revenue over the next twelve months and the remainder thereafter. As of February 1, 2019, the aggregate transaction price allocated to remaining performance obligations was \$8.7 billion, of which approximately 55% was expected to be recognized as revenue during fiscal 2020, and the remainder thereafter.

D. Related Parties

The information provided below includes a summary of the transactions entered into with Dell and Dell's consolidated subsidiaries, including EMC (collectively, "Dell") from the effective date of the Dell Acquisition through January 31, 2020.

Transactions with Dell

VMware and Dell engaged in the following ongoing related party transactions, which resulted in revenue and receipts, and unearned revenue for VMware:

- Pursuant to OEM and reseller arrangements, Dell integrates or bundles VMware's products and services with Dell's products and sells them to end users. Dell also acts as a distributor, purchasing VMware's standalone products and services for resale to end-user customers through VMware-authorized resellers. Revenue under these arrangements is presented net of related marketing development funds and rebates paid to Dell. In addition, VMware provides professional services to end users based upon contractual agreements with Dell.
- Dell purchases products and services from VMware for its internal use.
- From time to time, VMware and Dell enter into agreements to collaborate on technology projects, and Dell pays VMware for services or reimburses VMware for costs incurred by VMware, in connection with such projects.

Dell purchases VMware products and services directly from VMware, as well as through VMware's channel partners. Information about VMware's revenue and receipts, and unearned revenue from such arrangements, for the periods presented consisted of the following (table in millions):

	Revenue and Receipts			Unearned Revenue	
	For the Year Ended			As of	
	January 31, 2020	February 1, 2019	February 2, 2018	January 31, 2020	February 1, 2019
Reseller revenue	\$ 3,288	\$ 2,355	\$ 1,464	\$ 3,787	\$ 2,554
Internal-use revenue	82	41	46	57	29
Collaborative technology project receipts	10	4	—	n/a	n/a

Customer deposits resulting from transactions with Dell were \$194 million and \$85 million as of January 31, 2020 and February 1, 2019, respectively.

VMware and Dell engaged in the following ongoing related party transactions, which resulted in costs to VMware:

- VMware purchases and leases products and purchases services from Dell.
- From time to time, VMware and Dell enter into agreements to collaborate on technology projects, and VMware pays Dell for services provided to VMware by Dell related to such projects.
- In certain geographic regions where VMware does not have an established legal entity, VMware contracts with Dell subsidiaries for support services and support from Dell personnel who are managed by VMware. The costs incurred by Dell on VMware's behalf related to these employees are charged to VMware with a mark-up intended to approximate costs that would have been incurred had VMware contracted for such services with an unrelated third party. These costs are included as expenses on VMware's consolidated statements of income and primarily include salaries, benefits, travel and occupancy expenses. Dell also incurs certain administrative costs on VMware's behalf in the U.S. that are recorded as expenses on VMware's consolidated statements of income.
- In certain geographic regions, Dell files a consolidated indirect tax return, which includes value added taxes and other indirect taxes collected by VMware from its customers. VMware remits the indirect taxes to Dell and Dell remits the tax payment to the foreign governments on VMware's behalf.
- From time to time, VMware invoices end users on behalf of Dell for certain services rendered by Dell. Cash related to these services is collected from the end user by VMware and remitted to Dell.

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- From time to time, VMware also enters into agency arrangements with Dell that enable VMware to sell its subscriptions and services, leveraging the Dell enterprise relationships and end customer contracts.

Information about VMware's payments for such arrangements during the periods presented consisted of the following (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Purchases and leases of products and purchases of services ⁽¹⁾	\$ 242	\$ 200	\$ 142
Dell subsidiary support and administrative costs	119	145	212

⁽¹⁾ Amount includes indirect taxes that were remitted to Dell during the periods presented.

VMware also purchases Dell products through Dell's channel partners. Purchases of Dell products through Dell's channel partners were not significant during the periods presented.

From time to time, VMware and Dell also enter into joint marketing, sales, branding and product development arrangements, for which both parties may incur costs.

During the fourth quarter of fiscal 2020, VMware entered into an arrangement with Dell to transfer approximately 250 professional services employees from Dell to VMware. These employees are experienced in providing professional services delivering VMware technology and this transfer centralizes these resources within the Company in order to serve its customers more efficiently and effectively. The transfer was substantially completed during the fourth quarter of fiscal 2020 and did not have a material impact to the consolidated financial statements. VMware also expects that Dell will resell VMware consulting solutions.

During the third quarter of fiscal 2019, VMware acquired technology and employees related to the Dell EMC Service Assurance Suite, which provides root cause analysis management software for communications service providers, from Dell. The purchase of the Dell EMC Service Assurance Suite was accounted for as a transaction by entities under common control. The amount of the purchase price in excess of the historical cost of the acquired assets was recognized as a reduction to retained earnings on the consolidated balance sheets. Transition services were provided by Dell over a period of 18 months, starting from the date of the acquisition, which were not significant.

During the second quarter of fiscal 2018, VMware acquired Wavefront, Inc. ("Wavefront"). Upon closing of the acquisition, Dell was paid \$20 million in cash for its non-controlling ownership interest in Wavefront.

Dell Financial Services ("DFS")

DFS provided financing to certain of VMware's end users at the end users' discretion. Upon acceptance of the financing arrangement by both VMware's end users and DFS, amounts classified as trade accounts receivable are reclassified to due from related parties, net on the consolidated balance sheets. Revenue recognized on transactions financed through DFS was recorded net of financing fees. Financing fees on arrangements accepted by both parties were \$66 million, \$40 million and \$25 million during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 respectively.

Due To/From Related Parties, Net

Amounts due to and from related parties, net as of the periods presented consisted of the following (table in millions):

	January 31, 2020	February 1, 2019
Due from related parties, current	\$ 1,618	\$ 1,248
Due to related parties, current ⁽¹⁾	161	158
Due from related parties, net, current	\$ 1,457	\$ 1,090

⁽¹⁾ Includes an immaterial amount related to the Company's current operating lease liabilities due to related parties as of January 31, 2020.

The Company also recognized an immaterial amount related to non-current operating lease liabilities due to related parties. This amount has been included in operating lease liabilities on the consolidated balance sheet as of January 31, 2020.

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Amounts included in due from related parties, net, excluding DFS and tax obligations, includes the current portion of amounts due to and due from related parties. Amounts included in due from related parties, net are generally settled in cash within 60 days of each quarter-end.

Special Dividend

On July 1, 2018, VMware's board of directors declared a conditional \$11.0 billion one-time special cash dividend (the "Special Dividend"), payable pro-rata to VMware stockholders as of the record date. The Special Dividend was paid on December 28, 2018 to stockholders of record as of the close of business on December 27, 2018 in the amount of \$26.81 per outstanding share of VMware common stock. Dell was paid approximately \$9.0 billion in cash as a result of its financial interest in VMware's common stock as of the record date.

The Special Dividend was paid in connection with the closing of a transaction by Dell pursuant to which holders of Dell Class V common stock, which was designed to track the economic performance of VMware, exchanged the Dell Class V common stock for Dell Class C common stock or cash or both, resulting in the elimination of the Dell Class V common stock. Refer to Note Q for more information.

Notes Payable to Dell

On January 21, 2014, VMware entered into a note exchange agreement with its parent company providing for the issuance of three promissory notes in the aggregate principal amount of \$1.5 billion, which consisted of outstanding principal due on the following dates: \$680 million due May 1, 2018, \$550 million due May 1, 2020 and \$270 million due December 1, 2022.

On August 21, 2017, VMware repaid two of the notes payable to Dell in the aggregate principal amount of \$1.2 billion, representing repayment of the note due May 1, 2018 at par value and repayment of the note due May 1, 2020 at a discount. The remaining note payable of \$270 million due December 1, 2022 may be prepaid without penalty or premium.

Interest is payable quarterly in arrears at the annual rate of 1.75%. During the years ended January 31, 2020 and February 1, 2019, interest expense on the notes payable to Dell was not significant. Interest expense recognized during the year ended February 2, 2018 was \$16 million.

Other Related Party Transactions

Prior to the acquisition of Pivotal, certain members of Pivotal's board of directors were executives of Ford Motor Company ("Ford") and General Electric Company ("GE"), and these companies were customers of Pivotal. During the year ended January 31, 2020, revenue recognized from sales to Ford while it was a related party was not significant. During the years ended February 1, 2019 and February 2, 2018, revenue recognized from sales to Ford while it was a related party was \$12 million and \$31 million, respectively. Accounts receivable related to transactions with Ford was not significant as of February 1, 2019. During the year ended February 1, 2019, revenue recognized from sales to GE while it was a related party was not significant. During the year ended February 2, 2018, revenue recognized from sales to GE while it was a related party was \$11 million. Subsequent to fiscal 2019, GE was no longer a related party. Subsequent to VMware's acquisition of Pivotal, Ford was no longer a related party.

E. Commitments and Contingencies

Litigation

On April 25, 2019, Cirba Inc. ("Cirba") filed a lawsuit against VMware in the United States District Court for the District of Delaware, alleging two patent infringement claims and three trademark infringement-related claims. On May 6, 2019, Cirba filed a motion seeking a preliminary injunction tied to one of the two patents it alleges VMware infringes. Following a hearing on August 6, 2019, the Court denied Cirba's preliminary injunction motion and set the case for trial in mid-January 2020. On August 20, 2019, VMware filed counterclaims against Cirba, asserting among other claims that Cirba is infringing four VMware patents. The Delaware Court severed those claims from the January 2020 trial on Cirba's claims, and the trial on VMware's patent claims is currently set for September 2021. On October 22, 2019, VMware filed a separate patent infringement lawsuit against Cirba in the United States District Court for the Eastern District of Virginia, asserting that Cirba infringes four additional VMware patents. The trial on Cirba's claims in Delaware was completed on January 23, 2020, and on January 24, 2020, the jury returned a verdict finding that VMware willfully infringed the two asserted patents and awarding approximately \$237 million in damages. The jury further found that VMware was not liable on Cirba's trademark infringement-related claims. A total of \$237 million has been accrued for the Delaware action and reflects the estimated losses that are considered both probable and reasonably estimable at this time. The parties will now move to the post-trial briefing stage in the Delaware Court. The Company intends to vigorously defend itself in this matter, including seeking to overturn the jury's verdict in the first Delaware trial during the post-trial briefing stage and, if necessary, on appeal. Cirba has expressed its intent to seek a

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permanent injunction, enhanced damages, and attorneys' fees in the Delaware action. As noted above, the Company intends to pursue arguments both in the Delaware Court and, if necessary, the Federal Circuit to overturn the jury's verdict. Final resolution of this matter could be materially different from the amount accrued. The amount accrued for this matter is included in accrued expenses and other on the consolidated balance sheet as of January 31, 2020 and the charge is included in general and administrative on the consolidated statement of income for the year ended January 31, 2020.

On August 10, 2015, the Company received a subpoena from the California Attorney General's office ("California AG"), following the Company's settlement with the Department of Justice and the General Services Administration during June 2015. In this matter, the California AG is investigating the accuracy of the Company's sales practices with departments and agencies within the State of California. The Company held meetings with the California AG's representatives on November 5, 2015 and on October 30, 2019 and discussions are ongoing. The Company is unable at this time to assess whether or to what extent it may be found liable and, if found liable, what the damages may be, and believes a material loss is not probable and reasonably estimable. The Company intends to vigorously defend against this matter.

In December 2019, the staff of the Enforcement Division of the SEC requested documents and information related to VMware's backlog and associated accounting and disclosures. VMware is fully cooperating with the SEC's investigation and is unable to predict the outcome of this matter at this time.

While VMware believes that it has valid defenses against each of the above legal matters, given the unpredictable nature of legal proceedings, an unfavorable resolution of one or more legal proceedings, claims, or investigations could have a material adverse effect on VMware's consolidated financial statements.

VMware accrues for a liability when a determination has been made that a loss is both probable and the amount of the loss can be reasonably estimated. If only a range can be estimated and no amount within the range is a better estimate than any other amount, an accrual is recorded for the minimum amount in the range. Significant judgment is required in both the determination that the occurrence of a loss is probable and is reasonably estimable. In making such judgments, VMware considers the impact of negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular matter. Legal costs are generally recognized as expense when incurred.

VMware is also subject to other legal, administrative and regulatory proceedings, claims, demands and investigations in the ordinary course of business or in connection with business mergers and acquisitions, including claims with respect to commercial, contracting and sales practices, product liability, intellectual property, employment, corporate and securities law, class action, whistleblower and other matters. From time to time, VMware also receives inquiries from and has discussions with government entities and stockholders on various matters. As of January 31, 2020, other than the Cirba litigation, amounts accrued relating to these other matters arising as part of the ordinary course of business were considered not material. VMware does not believe that any liability from any reasonably possible disposition of such claims and litigation, individually or in the aggregate, would have a material adverse effect on its consolidated financial statements.

Operating Leases and Other Contractual Commitments

VMware leases office facilities and equipment under various operating arrangements. VMware's minimum future lease commitments and other contractual commitments at January 31, 2020 were as follows (table in millions):

	Future Lease Commitments ⁽¹⁾	Purchase Obligations	Asset Retirement Obligations	Total
2021	\$ 144	\$ 168	\$ 1	\$ 313
2022	141	74	3	218
2023	127	13	2	142
2024	101	—	—	101
2025	77	—	2	79
Thereafter	612	—	5	617
Total	\$ 1,202	\$ 255	\$ 13	\$ 1,470

⁽¹⁾ Amounts in the table above exclude legally binding minimum lease payments for leases signed but not yet commenced of \$361 million, as well as expected sublease income.

The amount of the future lease commitments after fiscal 2025 is primarily for the ground leases on VMware's Palo Alto, California headquarter facilities, which expire in fiscal 2047. As several of VMware's operating leases are payable in foreign

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currencies, the operating lease payments may fluctuate in response to changes in the exchange rate between the U.S. dollar and the foreign currencies in which the commitments are payable.

Guarantees and Indemnification Obligations

VMware enters into agreements in the ordinary course of business with, among others, customers, distributors, resellers, system vendors and systems integrators. Most of these agreements require VMware to indemnify the other party against third-party claims alleging that a VMware product infringes or misappropriates a patent, copyright, trademark, trade secret, and/or other intellectual property right. Certain of these agreements require VMware to indemnify the other party against certain claims relating to property damage, personal injury, or the acts or omissions of VMware, its employees, agents, or representatives.

VMware has agreements with certain vendors, financial institutions, lessors and service providers pursuant to which VMware has agreed to indemnify the other party for specified matters, such as acts and omissions of VMware, its employees, agents, or representatives.

VMware has procurement or license agreements with respect to technology that it has obtained the right to use in VMware's products and agreements. Under some of these agreements, VMware has agreed to indemnify the supplier for certain claims that may be brought against such party with respect to VMware's acts or omissions relating to the supplied products or technologies.

VMware has agreed to indemnify the directors and executive officers of VMware, to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or executive officer. VMware's by-laws and charter also provide for indemnification of directors and officers of VMware and VMware subsidiaries to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or executive officer. VMware also indemnifies certain employees who provide services with respect to employee benefits plans, including, for example, the members of the Administrative Committee of the VMware 401(k) Plan, and employees who serve as directors or officers of VMware's subsidiaries.

In connection with certain acquisitions, VMware has agreed to indemnify the former directors and officers of the acquired company in accordance with the acquired company's by-laws and charter in effect immediately prior to the acquisition or in accordance with indemnification or similar agreements entered into by the acquired company and such persons. VMware typically purchases a "tail" directors and officers insurance policy, which should enable VMware to recover a portion of any future indemnification obligations related to the former officers and directors of an acquired company.

It is not possible to determine the maximum potential amount under these indemnification agreements due to the relatively small number of prior indemnification claims and the unique facts and circumstances involved in each particular situation. Historically, payments made by the Company under these agreements have not had a material effect on the Company's consolidated results of operations, financial position, or cash flows.

F. Business Combinations, Definite-Lived Intangible Assets, Net and Goodwill

Business Combinations

Fiscal 2020

Acquisition of Pivotal

During the fourth quarter of fiscal 2020, VMware completed the acquisition of Pivotal, a leading cloud-native platform provider, to enhance VMware's cloud native Kubernetes portfolio. Refer to Note B for more information.

Acquisition of Carbon Black

On October 8, 2019, VMware completed the acquisition of Carbon Black, a developer of cloud-native endpoint protection, in a cash tender offer for all of the outstanding shares of Carbon Black's common stock, at a price of \$26.00 per share. VMware acquired Carbon Black to create a comprehensive intrinsic security portfolio to protect workloads, clients and infrastructure from cloud to edge. Management believes the acquisition will result in synergies with the Carbon Black platform and its VMware NSX and VMware Workspace ONE offerings, among others, and enable VMware to offer a highly-differentiated intrinsic security platform addressing multiple concerns of the security industry. The total preliminary purchase price was \$2.0 billion, net of cash acquired of \$111 million.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Merger consideration totaling \$18 million is held with a third-party paying agent and is payable to certain employees of Carbon Black subject to specified future employment conditions, and is being recognized as expense over the requisite service period of approximately two years on a straight-line basis.

VMware assumed all of Carbon Black's unvested stock options and restricted stock outstanding at the completion of the acquisition with an estimated fair value of \$181 million. Of the total consideration, \$10 million was allocated to the purchase price and \$171 million was allocated to future services and will be expensed over the remaining requisite service periods of approximately three years on a straight-line basis. The estimated fair value of the stock options assumed by the Company was determined using the Black-Scholes option pricing model. The share conversion ratio of 0.2 was applied to convert Carbon Black's outstanding stock awards into shares of VMware's common stock.

The following table summarizes the preliminary allocation of the consideration to the fair value of the assets acquired and liabilities assumed on the date of acquisition (table in millions):

Cash	\$ 111
Accounts receivable	58
Intangible assets	492
Goodwill	1,588
Other acquired assets	52
Total assets acquired	2,301
Unearned revenue	151
Other assumed liabilities	45
Total liabilities assumed	196
Fair value of assets acquired and liabilities assumed	\$ 2,105

The following table summarizes the components of the intangible assets acquired and their estimated useful lives by VMware in conjunction with the acquisition (amounts in table in millions):

	Weighted-Average Useful Lives (in years)	Fair Value Amount
Purchased technology	4.2	\$ 232
Customer relationships and customer lists	7.0	215
Trademarks and tradenames	5.0	25
Other	2.0	20
Total definite-lived intangible assets		\$ 492

The excess of the purchase consideration over the fair value of net tangible and identifiable intangible assets acquired was recorded as goodwill. The estimated fair value assigned to the tangible assets, identifiable intangible assets, and assumed liabilities were based on management's estimates and assumptions. The initial allocation of the purchase price was based on preliminary valuations and assumptions and is subject to change within the measurement period, including current and non-current income taxes payable and deferred taxes as additional information is received and tax returns are finalized. VMware expects to finalize the allocation of the purchase price within the measurement period. Management expects that goodwill and identifiable intangible assets will not be deductible for tax purposes.

Acquisition of Avi Networks, Inc.

During the second quarter of fiscal 2020, VMware completed the acquisition of Avi Networks, Inc. ("Avi Networks"), a provider of multi-cloud application delivery services. VMware acquired Avi Networks to provide customers with application delivery controller capabilities that include server load balancing for various applications and analytics. Together, VMware and Avi Networks expect to deliver a software defined networking stack built for the multi-cloud environment. The total purchase price was \$326 million, net of cash acquired of \$9 million. The purchase price primarily included \$94 million of identifiable intangible assets and \$228 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets primarily consisted of completed technology of \$79 million and customer relationships of \$15 million, with estimated useful lives of one year to eight years.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Merger consideration totaling \$27 million is held in escrow and is payable to certain employees of Avi Networks subject to specified future employment conditions, and is being recognized as expense over the requisite service period of approximately three years on a straight-line basis.

The fair value of assumed unvested equity awards attributed to post-combination services was \$32 million and is being expensed over the remaining requisite service periods of approximately three years on a straight-line basis. The estimated fair value of the stock options assumed by the Company was determined using the Black-Scholes option pricing model.

The initial allocation of the purchase price was based on preliminary valuations and assumptions and is subject to change within the measurement period. VMware expects to finalize the allocation of the purchase price within the measurement period.

Acquisition of AetherPal, Inc.

During the first quarter of fiscal 2020, VMware completed the acquisition of AetherPal Inc., a provider of remote support solutions, to enhance VMware's Workspace ONE offerings. The total purchase price was \$45 million, which primarily included \$12 million of identifiable intangible assets and \$33 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets primarily consisted of completed technology and customer relationships, with estimated useful lives of three years to five years.

Other Fiscal 2020 Business Combinations

During the third quarter of fiscal 2020, VMware completed four other acquisitions, which were not material individually to the consolidated financial statements. VMware expects these acquisitions to enhance its product features and capabilities for its Software-Defined Data Center solutions and SaaS offerings. The aggregate purchase price, net of cash acquired for these four acquisitions was \$68 million, which primarily included \$21 million of identifiable intangible assets and \$48 million of goodwill, of which the majority is not expected to be deductible for tax purposes. The identifiable intangible assets had estimated useful lives of one year to five years and primarily consisted of completed technology.

The pro forma financial information assuming fiscal 2020 acquisitions had occurred as of the beginning of the fiscal year prior to the fiscal year of acquisitions, as well as the revenue and earnings generated during the current fiscal year, were not material for disclosure purposes, both individually or in the aggregate.

Fiscal 2019

Acquisition of Heptio Inc.

During the fourth quarter of fiscal 2019, VMware completed the acquisition of Heptio Inc. ("Heptio"), a provider of products and services that help enterprises deploy and operationalize Kubernetes. VMware acquired Heptio to enhance VMware's Kubernetes portfolio and cloud native strategy. The total purchase price was \$420 million, net of cash acquired of \$15 million. The purchase price primarily included \$27 million of identifiable intangible assets and \$392 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets primarily consisted of completed technology of \$20 million, with an estimated useful life of five years. Management believes that the goodwill acquired represents the synergies expected from combining VMware's solution offerings related to Kubernetes with those of Heptio.

Merger consideration totaling \$117 million, including \$24 million being held in escrow, is payable to certain employees of Heptio subject to specified future employment conditions and is being recognized as expense over the requisite service period of approximately four years on a straight-line basis. Compensation expense recognized during the year ended February 1, 2019 was not material.

The fair value of assumed unvested equity awards attributed to post-combination services was \$47 million and will be expensed over the remaining requisite service periods of approximately three years on a straight-line basis. The estimated fair value of the stock options assumed by the Company was determined using the Black-Scholes option pricing model.

Acquisition of CloudHealth Technologies, Inc.

During the third quarter of fiscal 2019, VMware completed the acquisition of CloudHealth Technologies, Inc. ("CloudHealth Technologies"). CloudHealth Technologies delivers a cloud operations platform that enables customers to analyze and manage cloud cost, usage, security, and performance centrally for native public clouds, which expanded VMware's portfolio of multi-cloud management solutions. The total purchase price was \$495 million, net of cash acquired of \$26 million. The purchase price primarily included \$101 million of identifiable intangible assets and \$394 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets included completed technology of \$69 million and customer relationships of \$18 million, with estimated useful lives of one to five years.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The fair value of assumed unvested equity awards attributed to post-combination services was \$39 million and will be expensed over the remaining requisite service periods on a straight-line basis. The estimated fair value of the stock options assumed by the Company was determined using the Black-Scholes option pricing model.

Other Fiscal 2019 Asset Acquisitions

During the first quarter of fiscal 2019, VMware completed four asset acquisitions, in which the Company acquired certain intangible assets classified as completed technology. The aggregate purchase price of the intangible assets acquired was \$26 million.

The pro forma financial information assuming fiscal 2019 acquisitions had occurred as of the beginning of the fiscal year prior to the fiscal year of acquisitions, as well as the revenue and earnings generated during the current fiscal year, were not material for disclosure purposes, both individually or in the aggregate.

Fiscal 2018

Acquisition of VeloCloud Networks, Inc.

During the fourth quarter of fiscal 2018, VMware completed the acquisition of VeloCloud Networks, Inc. (“VeloCloud”), a provider of cloud-delivered software-defined wide-area network (SD-WAN) technology for enterprises and service providers. VMware acquired VeloCloud to build on its network virtualization platform, VMware NSX, and to expand its networking portfolio. The total purchase price was \$449 million, net of cash acquired of \$24 million. Prior to the closing of the acquisition, VMware held an ownership interest in VeloCloud. Upon completion of the step acquisition, VMware recognized a gain of \$8 million in other income (expense), net for the remeasurement of its previously held ownership interest to fair value, which was \$12 million.

Other 2018 Business Combinations

During the second quarter of fiscal 2018, VMware completed the acquisitions of Wavefront and Aptelligent, Inc., which were not material to the consolidated financial statements. The aggregate purchase price for the two acquisitions was \$238 million, net of cash acquired of \$35 million. The aggregate purchase price included \$36 million of identifiable intangible assets and \$238 million of goodwill that is not expected to be deductible for tax purposes. Prior to the closing of the acquisition, VMware held an ownership interest in Wavefront. Upon completion of the step acquisition, VMware recognized a gain of \$34 million in other income (expense), net for the remeasurement of its previously held ownership interest to fair value, which was \$49 million. Upon closing of the acquisition, Dell was paid \$20 million in cash for its non-controlling ownership interest in Wavefront.

The pro forma financial information assuming fiscal 2020 acquisitions had occurred as of the beginning of the fiscal year prior to the fiscal year of acquisitions, as well as the revenue and earnings generated during the current fiscal year, were not material for disclosure purposes, both individually or in the aggregate.

Definite-Lived Intangible Assets, Net

The following table summarizes the changes in the carrying amount of definite-lived intangible assets during the periods presented (table in millions):

	January 31, 2020	February 1, 2019
Balance, beginning of the year	\$ 966	\$ 1,059
Additions to intangible assets related to business combinations	622	154
Amortization expense	(300)	(247)
Derecognized leasehold interest	(116)	—
Balance, end of the year	<u>\$ 1,172</u>	<u>\$ 966</u>

Upon adoption of Topic 842 on February 2, 2019, leasehold interest of \$116 million related to favorable terms of certain ground lease agreements was derecognized and adjusted to the carrying amount of the operating lease ROU assets and classified as other assets on the consolidated balance sheets. Prior to adoption, these assets were classified as intangible assets, net on the consolidated balance sheets.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

As of the periods presented, definite-lived intangible assets consisted of the following (amounts in tables in millions):

January 31, 2020				
	Weighted-Average Useful Lives (in years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	5.7	\$ 1,030	\$ (488)	\$ 542
Customer relationships and customer lists	11.4	739	(200)	539
Trademarks and tradenames	7.6	131	(58)	73
Other	2.0	22	(4)	18
Total definite-lived intangible assets		<u>\$ 1,922</u>	<u>\$ (750)</u>	<u>\$ 1,172</u>

February 1, 2019				
	Weighted-Average Useful Lives (in years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	6.4	\$ 1,001	\$ (606)	\$ 395
Leasehold interest	34.9	149	(33)	116
Customer relationships and customer lists	13.6	513	(125)	388
Trademarks and tradenames	8.3	106	(43)	63
Other	3.9	7	(3)	4
Total definite-lived intangible assets		<u>\$ 1,776</u>	<u>\$ (810)</u>	<u>\$ 966</u>

Amortization expense on definite-lived intangible assets was \$300 million, \$247 million and \$179 million during the years ended January 31, 2020, February 1, 2019 and February 2, 2018, respectively.

Based on intangible assets recorded as of January 31, 2020 and assuming no subsequent additions, dispositions or impairment of underlying assets, the remaining estimated annual amortization expense over the next five fiscal years and thereafter is expected to be as follows (table in millions):

2021	\$ 305
2022	261
2023	211
2024	165
2025	91
Thereafter	139
Total	<u>\$ 1,172</u>

Goodwill

The following table summarizes the changes in the carrying amount of goodwill during the periods presented (table in millions):

	January 31, 2020	February 1, 2019
Balance, beginning of the year	\$ 7,418	\$ 6,660
Increase in goodwill related to business combinations	1,911	784
Other adjustment	—	(26)
Balance, end of the year	<u>\$ 9,329</u>	<u>\$ 7,418</u>

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

G. Realignment and Loss on Disposition

Realignment

During the fourth quarter of fiscal 2020, VMware approved a plan to streamline its operations, with plans to better align business priorities and shift positions to lower cost locations. As a result of these actions, approximately 1,100 positions were eliminated during the year ended January 31, 2020. VMware recognized \$79 million of severance-related realignment expenses during the year ended January 31, 2020 on the consolidated statements of income. Actions associated with this plan are expected to be completed during fiscal 2021.

The following table summarizes the activity for the accrued realignment expenses for the year ended January 31, 2020 (table in millions):

	For the Year Ended January 31, 2020			
	Balance as of February 1, 2019	Realignment	Utilization	Balance as of January 31, 2020
Severance-related costs	\$ —	\$ 79	\$ (5)	\$ 74

Disposition of VMware vCloud Air Business

During the second quarter of fiscal 2018, VMware completed the sale of its vCloud Air business (“vCloud Air”) to OVH US LLC. The loss recognized in connection with this transaction was \$104 million during the year ended February 2, 2018 and was recorded in realignment and loss on disposition on the consolidated statements of income. Losses recognized on the disposition of vCloud Air included the impairment of fixed assets identified as part of the sale, as well as the costs associated with certain transition services, which primarily included employee-related expenses and costs associated with data-center colocation services. Transition services were performed over a period of 18 months, starting from the date of the sale.

H. Net Income Per Share

Basic net income per share is computed by dividing net income by the weighted-average number of common stock outstanding during the period. Diluted net income per share is computed by dividing net income by the weighted-average number of common stock outstanding and potentially dilutive securities outstanding during the period, as calculated using the treasury stock method. Potentially dilutive securities primarily include unvested restricted stock units (“RSUs”), including PSU awards, and stock options, including purchase options under VMware’s employee stock purchase plan, which included Pivotal’s employee stock purchase plan through the date of acquisition. Securities are excluded from the computation of diluted net income per share if their effect would be anti-dilutive. VMware uses the two-class method to calculate net income per share as both classes share the same rights in dividends; therefore, basic and diluted earnings per share are the same for both classes.

The following table sets forth the computations of basic and diluted net income per share during the periods presented (table in millions, except per share amounts and shares in thousands):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Net income attributable to VMware, Inc.	\$ 6,412	\$ 1,650	\$ 437
Weighted-average shares, basic for Classes A and B	417,058	413,769	410,315
Effect of other dilutive securities	8,177	7,362	10,572
Weighted-average shares, diluted for Classes A and B	425,235	421,131	420,887
Net income per weighted-average share attributable to VMware, Inc. common stockholders, basic for Classes A and B	\$ 15.37	\$ 3.99	\$ 1.07
Net income per weighted-average share attributable to VMware, Inc. common stockholders, diluted for Classes A and B	\$ 15.08	\$ 3.92	\$ 1.04

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table sets forth the weighted-average common share equivalents of Class A common stock that were excluded from the diluted net income per share calculations during the periods presented because their effect would have been anti-dilutive (shares in thousands):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Anti-dilutive securities:			
Employee stock options	34	50	51
Restricted stock units	315	255	140
Total	349	305	191

I. Cash and Cash Equivalents

Cash and cash equivalents as of the periods presented consisted of the following (tables in millions):

	January 31, 2020			
	Cost or Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Fair Value
Cash	\$ 655	\$ —	\$ —	\$ 655
Cash equivalents:				
Money-market funds	\$ 2,158	\$ —	\$ —	\$ 2,158
Demand deposits and time deposits	102	—	—	102
Total cash equivalents	\$ 2,260	\$ —	\$ —	\$ 2,260

	February 1, 2019			
	Cost or Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Fair Value
Cash	\$ 549	\$ —	\$ —	\$ 549
Cash equivalents:				
Money-market funds	\$ 2,930	\$ —	\$ —	\$ 2,930
Demand deposits and time deposits	53	—	—	53
Total cash equivalents	\$ 2,983	\$ —	\$ —	\$ 2,983

Restricted Cash

The following table provides a reconciliation of the Company's cash and cash equivalents, and current and non-current portion of restricted cash reported on the consolidated balance sheets that sum to the total cash, cash equivalents and restricted cash as of January 31, 2020 and February 1, 2019 (table in millions):

	January 31, 2020	February 1, 2019
Cash and cash equivalents	\$ 2,915	\$ 3,532
Restricted cash within other current assets	83	35
Restricted cash within other assets	33	29
Total cash, cash equivalents and restricted cash	\$ 3,031	\$ 3,596

Amounts included in restricted cash primarily relate to certain employee-related benefits, as well as amounts related to installment payments to certain employees as part of acquisitions, subject to the achievement of specified future employment conditions.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

J. Debt
Unsecured Senior Notes

On August 21, 2017, VMware issued three series of unsecured senior notes (“Senior Notes”) pursuant to a public debt offering. The proceeds from the issuance were \$4.0 billion, net of debt discount of \$9 million and debt issuance costs of \$30 million.

The carrying value of the Senior Notes as of the periods presented was as follows (amounts in millions):

	January 31, 2020	February 1, 2019	Effective Interest Rate
Senior Notes:			
2.30% Senior Note Due August 21, 2020	\$ 1,250	\$ 1,250	2.56%
2.95% Senior Note Due August 21, 2022	1,500	1,500	3.17%
3.90% Senior Note Due August 21, 2027	1,250	1,250	4.05%
Total principal amount	4,000	4,000	
Less: unamortized discount	(5)	(7)	
Less: unamortized debt issuance costs	(16)	(21)	
Net carrying amount	3,979	3,972	
Current portion of long-term debt and other borrowings	1,248	—	
Long-term debt	\$ 2,731	\$ 3,972	

Interest is payable semiannually in arrears, on February 21 and August 21 of each year. During each of the years ended January 31, 2020, February 1, 2019 and February 2, 2018, interest expense was \$129 million, \$129 million and \$58 million, respectively. Interest expense, which included amortization of discount and issuance costs, was recognized on the consolidated statements of income. The discount and issuance costs are amortized over the term of the Senior Notes on a straight-line basis, which approximates the effective interest method.

The Senior Notes are redeemable in whole at any time or in part from time to time at VMware’s option, subject to a make-whole premium. In addition, upon the occurrence of certain change-of-control triggering events and certain downgrades of the ratings on the Senior Notes, VMware may be required to repurchase the notes at a repurchase price equal to 101% of the aggregate principal plus any accrued and unpaid interest on the date of purchase. The Senior Notes rank equally in right of payment with VMware’s other unsecured and unsubordinated indebtedness. The Senior Notes also include restrictive covenants that, in certain circumstances, limit VMware’s ability to create certain liens, to enter into certain sale and leaseback transactions and to consolidate, merge, sell or otherwise dispose of all or substantially all of VMware’s assets.

Refer to Note D for disclosure regarding the note payable to Dell.

Revolving Credit Facilities

On September 12, 2017, VMware entered into an unsecured credit agreement establishing a revolving credit facility with a syndicate of lenders that provides the Company with a borrowing capacity of up to \$1.0 billion, for general corporate purposes. Commitments under the revolving credit facility are available for a period of five years, which may be extended, subject to the satisfaction of certain conditions, by up to two one-year periods. As of January 31, 2020 and February 1, 2019, there were no outstanding borrowings under the revolving credit facility. The credit agreement contains certain representations, warranties and covenants. Commitment fees, interest rates and other terms of borrowing under the revolving credit facility may vary based on VMware’s external credit ratings. The amount paid in connection with the ongoing commitment fee, which is payable quarterly in arrears, was not significant during the years ended January 31, 2020, February 1, 2019 and February 2, 2018.

On September 8, 2017, Pivotal entered into a senior secured revolving loan facility in an aggregate principal amount not to exceed \$100 million. The revolving loan facility was amended on May 6, 2019 and terminated on October 22, 2019. During the years ended February 1, 2019 and February 2, 2018, \$15 million and \$20 million, respectively, were borrowed under the revolving loan facility. The total outstanding balance of \$35 million was repaid during the year ended February 1, 2019.

Senior Unsecured Term Loan Facility

On September 26, 2019, VMware entered into a senior unsecured term loan facility (the “Term Loan”) with a syndicate of lenders that provides the Company with a borrowing capacity of up to \$2.0 billion, for general corporate purposes. The

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Company may borrow against the Term Loan two times up to its borrowing capacity of \$2.0 billion until February 7, 2020. The Term Loan matures on the 364th day following the initial funding under the Term Loan. The Term Loan bears interest at the London interbank offered rate plus 0.75% to 1.25%, or an alternate base rate plus 0.00% to 0.25%, depending on VMware's external credit ratings. As of January 31, 2020, the weighted-average interest rate on the outstanding Term Loan was 2.54%.

During the year ended January 31, 2020, the Company drew down an aggregate of \$3.4 billion and repaid an aggregate of \$1.9 billion. As of January 31, 2020, the outstanding balance on the Term Loan of \$1.5 billion, net of unamortized debt issuance costs, was included in current portion of long-term debt and other borrowings on the consolidated balance sheets, with no remaining amount available for additional borrowings. The Term Loan contains certain representations, warranties and covenants. Commitment fees paid were not significant during the year ended January 31, 2020. Interest expense for the Term Loan, including amortization of issuance costs, was \$15 million during the year ended January 31, 2020.

K. Fair Value Measurements

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis

Certain financial assets and liabilities are measured at fair value on a recurring basis. VMware determines fair value using the following hierarchy:

- Level 1 - Quoted prices in active markets for identical assets or liabilities;
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are noted as being active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

As of January 31, 2020 and February 1, 2019, VMware's Level 2 investment securities were generally priced using non-binding market consensus prices that were corroborated by observable market data, quoted market prices for similar instruments, or pricing models such as discounted cash flow techniques.

VMware did not have any significant assets or liabilities that were classified as Level 3 of the fair value hierarchy for the periods presented, and there have been no transfers between fair value measurement levels during the periods presented.

The following tables set forth the fair value hierarchy of VMware's cash equivalents and short-term investments that were required to be measured at fair value as of the periods presented (tables in millions):

	January 31, 2020		
	Level 1	Level 2	Total
Cash equivalents:			
Money-market funds	\$ 2,158	\$ —	\$ 2,158
Demand deposits and time deposits ⁽¹⁾	—	102	102
Total cash equivalents	\$ 2,158	\$ 102	\$ 2,260
	February 1, 2019		
	Level 1	Level 2	Total
Cash equivalents:			
Money-market funds	\$ 2,930	\$ —	\$ 2,930
Demand deposits and time deposits ⁽¹⁾	—	53	53
Total cash equivalents	\$ 2,930	\$ 53	\$ 2,983
Short-term investments:			
Marketable equity securities	\$ 19	\$ —	\$ 19
Total short-term investments	\$ 19	\$ —	\$ 19

⁽¹⁾ Demand deposits and time deposits were valued at amortized cost, which approximated fair value.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The note payable to Dell, the Senior Notes and the Term Loan were not adjusted to fair value. The fair value of the note payable to Dell was approximately \$269 million and \$252 million as of January 31, 2020 and February 1, 2019, respectively. The fair value of the Senior Notes was approximately \$4.1 billion and \$3.9 billion as of January 31, 2020 and February 1, 2019, respectively. The fair value of the Term Loan approximated its carrying value as of January 31, 2020 due to its short-term nature. Fair value for the note payable to Dell, the Senior Notes and the Term Loan was estimated primarily based on observable market interest rates (Level 2 inputs).

VMware offers a deferred compensation plan for eligible employees, which allows participants to defer payment for part or all of their compensation. The net impact to the consolidated statements of income was not significant since changes in the fair value of the assets substantially offset changes in the fair value of the liabilities. As such, assets and liabilities associated with this plan have not been included in the above tables. Assets associated with this plan were the same as the liabilities at approximately \$106 million and \$77 million as of January 31, 2020 and February 1, 2019, respectively, and are included in other assets and other liabilities on the consolidated balance sheets.

Equity Securities Carried at Fair Value

As of February 1, 2019, VMware held a publicly traded equity security, which was measured at its fair value of \$19 million using quoted prices for identical assets in an active market (Level 1). During the first quarter of fiscal 2020, VMware sold its investment in this equity security. The realized gain recognized on the consolidated statements of income during the year ended January 31, 2020 was not significant.

Equity Securities Without a Readily Determinable Fair Value

VMware's equity securities also include investments in privately held companies, which do not have a readily determinable fair value. As of January 31, 2020 and February 1, 2019, investments in privately held companies, which consisted primarily of equity securities, had a carrying value of \$159 million and \$95 million, respectively, and were included in other assets on the consolidated balance sheets. During the year ended January 31, 2020 and February 1, 2019, the Company recognized unrealized gains of \$37 million and unrealized losses of \$13 million, respectively, on these securities. All gains and losses on these securities, whether realized or unrealized, are recognized in other income (expense), net on the consolidated statements of income.

L. Derivatives and Hedging Activities

VMware conducts business on a global basis in multiple foreign currencies, subjecting the Company to foreign currency risk. To mitigate a portion of this risk, VMware utilizes hedging contracts as described below, which potentially expose the Company to credit risk to the extent that the counterparties may be unable to meet the terms of the agreements. VMware manages counterparty risk by seeking counterparties of high credit quality, by monitoring credit ratings and credit spreads of, and other relevant public information about its counterparties. VMware does not, and does not intend to, use derivative instruments for trading or speculative purposes.

Cash Flow Hedges

To mitigate its exposure to foreign currency fluctuations resulting from certain operating expenses denominated in certain foreign currencies, VMware enters into forward contracts that are designated as cash flow hedging instruments as the accounting criteria for such designation are met. Therefore, the effective portion of gains or losses resulting from changes in the fair value of these instruments is initially reported in accumulated other comprehensive loss on the consolidated balance sheets and is subsequently reclassified to the related operating expense line item on the consolidated statements of income in the same period that the underlying expenses are incurred. During the years ended January 31, 2020, February 1, 2019 and February 2, 2018, the effective portion of gains or losses reclassified to the consolidated statements of income was not significant. During the years ended February 1, 2019 and February 2, 2018, interest charges or "forward points" on VMware's forward contracts were excluded from the assessment of hedge effectiveness and were recorded in other income (expense), net on the consolidated statements of income as incurred. Beginning February 2, 2019, the excluded component was recorded to the related operating expense line item on the consolidated statements of income in the same period that the underlying expenses are incurred.

These forward contracts have contractual maturities of twelve months or less, and as of January 31, 2020 and February 1, 2019, outstanding forward contracts had a total notional value of \$480 million and \$367 million, respectively. The notional value represents the gross amount of foreign currency that will be bought or sold upon maturity of the forward contract.

During the years ended January 31, 2020, February 1, 2019 and February 2, 2018, all cash flow hedges were considered effective.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Forward Contracts Not Designated as Hedges

VMware has established a program that utilizes forward contracts to offset the foreign currency risk associated with net outstanding monetary asset and liability positions. These forward contracts are not designated as hedging instruments under applicable accounting guidance, and therefore all changes in the fair value of the forward contracts are reported in other income (expense), net on the consolidated statements of income.

These forward contracts generally have a contractual maturity of one month, and as of January 31, 2020 and February 1, 2019, outstanding forward contracts had a total notional value of \$1.1 billion and \$1.2 billion, respectively. The notional value represents the gross amount of foreign currency that will be bought or sold upon maturity of the forward contract.

During the years ended January 31, 2020 and February 1, 2019, VMware recognized gains of \$54 million and \$69 million, respectively, and a loss of \$97 million during the year ended February 2, 2018, related to the settlement of forward contracts. Gains and losses are recorded in other income (expense), net on the consolidated statements of income.

The combined gains and losses related to the settlement of forward contracts and the underlying foreign currency denominated assets and liabilities during the year ended January 31, 2020 resulted in net gains of \$31 million. The combined gains and losses related to the settlement of forward contracts and the underlying foreign currency denominated assets and liabilities were not significant during the years ended February 1, 2019 and February 2, 2018. Net gains and losses are recorded in other income (expense), net on the consolidated statements of income.

M. Property and Equipment, Net

Property and equipment, net, as of the periods presented consisted of the following (table in millions):

	January 31, 2020	February 1, 2019
Equipment and software	\$ 1,404	\$ 1,448
Buildings and improvements	1,088	991
Furniture and fixtures	120	116
Construction in progress	106	56
Total property and equipment	2,718	2,611
Accumulated depreciation	(1,438)	(1,449)
Total property and equipment, net	\$ 1,280	\$ 1,162

As of January 31, 2020, construction in progress primarily represented various buildings and site improvements that had not yet been placed into service.

Depreciation expense was \$234 million, \$211 million and \$206 million during the years ended January 31, 2020, February 1, 2019 and February 2, 2018, respectively.

N. Leases

VMware has operating and finance leases primarily related to office facilities and equipment, which have remaining lease terms of one month to 26 years. During the year ended January 31, 2020, lease expense recorded in the consolidated statements of income was \$206 million.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The components of lease expense during the period presented were as follows (table in millions):

	For the Year Ended
	January 31,
	2020
Operating lease expense	\$ 167
Finance lease expense:	
Amortization of ROU assets	\$ 4
Interest on lease liabilities	1
Total finance lease expense	\$ 5
Short-term lease expense	\$ 3
Variable lease expense	\$ 31
Total lease expense	\$ 206

From time to time, VMware enters into lease arrangements with Dell. Lease expense incurred for arrangements with Dell was not significant during the year ended January 31, 2020.

Supplemental cash flow information related to operating and finance leases during the period presented was as follows (table in millions):

	For the Year Ended
	January 31,
	2020
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	\$ 167
Operating cash flows from finance leases	2
Financing cash flows from finance leases	1
ROU assets obtained in exchange for lease liabilities:	
Operating leases	\$ 226
Finance leases	63

Supplemental balance sheet information related to operating and finance leases as of the period presented was as follows (table in millions):

	January 31, 2020	
	Operating Leases	Finance Leases
ROU assets, non-current ⁽¹⁾	\$ 886	\$ 58
Lease liabilities, current ⁽²⁾	\$ 109	\$ 4
Lease liabilities, non-current ⁽³⁾	746	55
Total lease liabilities	\$ 855	\$ 59

⁽¹⁾ ROU assets for operating leases are included in other assets and ROU assets for finance leases are included in property and equipment, net on the consolidated balance sheets.

⁽²⁾ Current lease liabilities are included primarily in accrued expenses and other on the consolidated balance sheets. An immaterial amount is presented in due from related parties, net on the consolidated balance sheets.

⁽³⁾ Operating lease liabilities are presented as operating lease liabilities on the consolidated balance sheets. Finance lease liabilities are included in other liabilities on the consolidated balance sheets.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Lease term and discount rate related to operating and finance leases as of the period presented were as follows:

	January 31, 2020
Weighted-average remaining lease term (in years)	
Operating leases	13.3
Finance leases	9.2
Weighted-average discount rate	
Operating leases	3.8%
Finance leases	3.1%

The following represents VMware's future minimum lease payments under non-cancellable operating and finance leases as of January 31, 2020 (table in millions):

	Operating Leases	Finance Leases
2021	\$ 138	\$ 6
2022	135	6
2023	120	7
2024	94	7
2025	70	7
Thereafter	577	35
Total future minimum lease payments	1,134	68
Less: Imputed interest	(279)	(9)
Total lease liabilities ⁽¹⁾	\$ 855	\$ 59

⁽¹⁾ Total lease liabilities as of January 31, 2020 excluded legally binding lease payments for leases signed but not yet commenced of \$361 million.

Future lease payments under non-cancellable operating leases as of February 1, 2019 were as follows (table in millions):

2020	\$ 132
2021	104
2022	91
2023	78
2024	63
Thereafter	585
Total ⁽¹⁾	\$ 1,053

⁽¹⁾ Total future lease payments as of February 1, 2019 excluded legally binding minimum lease payments for leases signed but not yet commenced of \$214 million.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

O. Accrued Expenses and Other

Accrued expenses and other as of the periods presented consisted of the following (table in millions)

	January 31, 2020	February 1, 2019
Accrued employee related expenses	\$ 845	\$ 780
Accrued partner liabilities	181	207
Customer deposits	247	239
Other ⁽¹⁾	878	438
Total	\$ 2,151	\$ 1,664

⁽¹⁾ Other primarily consists of litigation accrual, leases accrual, income tax payable and indirect tax accrual.

Accrued partner liabilities primarily relate to rebates and marketing development fund accruals for channel partners, system vendors and systems integrators. Accrued partner liabilities also include accruals for professional service arrangements for which VMware intends to leverage channel partners to directly fulfill the obligation to its customers.

As of January 31, 2020, other included \$237 million litigation accrual related to Cirba patent and trademark infringement lawsuit and \$155 million accrual for amounts owed to dissenting shareholders in connection with the Pivotal acquisition. Refer to Note E and Note B, respectively, for more information.

P. Income Taxes

The domestic and foreign components of income before income tax for the periods presented were as follows (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Domestic	\$ 895	\$ 680	\$ 462
Foreign	543	1,149	1,115
Total income before income tax	\$ 1,438	\$ 1,829	\$ 1,577

VMware's income tax provision (benefit) for the periods presented consisted of the following (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Federal:			
Current	\$ 78	\$ 181	\$ 688
Deferred	(219)	(92)	275
	(141)	89	963
State:			
Current	45	31	8
Deferred	(44)	(10)	21
	1	21	29
Foreign:			
Current	240	137	156
Deferred	(5,018)	(8)	4
	(4,778)	129	160
Total income tax provision (benefit)	\$ (4,918)	\$ 239	\$ 1,152

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

During the second quarter of fiscal 2020, the Company completed an intra-group transfer of certain of its intellectual property rights (the “IP”) to its Irish subsidiary, where its international business is headquartered (the “IP Transfer”). The transaction will change the Company’s mix of international income from a lower non-U.S. tax jurisdiction to Ireland, which is subject to a statutory tax rate of 12.5%. A discrete tax benefit of \$4.9 billion was recognized with a deferred tax asset during the second quarter of fiscal 2020. This deferred tax asset was recognized as a result of the book and tax basis difference on the IP transferred to an Irish subsidiary and was based on the intellectual property’s current fair value. Management applied significant judgment when determining the fair value of the IP, which serves as the tax basis of the deferred tax asset, and in evaluating the associated tax laws in the applicable jurisdictions. The tax amortization related to the IP transferred will be recognized in future periods and any amortization that is unused in a particular year can be carried forward indefinitely under Irish tax laws. The deferred tax asset and the tax benefit were measured based on the Irish tax rate expected to apply in the years the asset will be recovered. The Company expects to realize the deferred tax asset resulting from the IP Transfer and will assess the realizability of the deferred tax asset periodically. The impact of the transaction to net cash provided by or used in operating, investing and financing activities on the consolidated statements of cash flows during the year ended January 31, 2020 was not material.

Income tax benefit during the year ended January 31, 2020 was primarily impacted by the discrete tax benefit recognized as a part of the IP Transfer.

Income tax provision during the year ended February 2, 2018 was primarily driven by a one-time expense of approximately \$900 million resulting from the 2017 Tax Act. Key components of the tax expense relating to the 2017 Tax Act included provisional estimates for the mandatory one-time transition tax on accumulated earnings of foreign subsidiaries (“Transition Tax”) of approximately \$800 million and the remeasurement of the Company’s deferred tax assets and liabilities of approximately \$100 million resulting from the reduction in the U.S. statutory corporate tax rate from 35% to 21%, effective January 1, 2018. Due to the timing of the enactment and the complexity involved in applying the provisions of the 2017 Tax Act, the Company made reasonable estimates for the related tax effects and recorded provisional amounts on its consolidated financial statements for fiscal 2018. During fiscal 2019, the Company collected and prepared necessary data and finalized its income tax accounting analysis based on the guidance and interpretations issued by the U.S. Treasury Department, the Internal Revenue Service (“IRS”), and other standard-setting bodies, and relevant authorities. The adjustment to the provisional amount was not material.

A reconciliation of VMware’s effective tax rate to the statutory federal tax rate for the periods presented is as follows:

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Statutory federal tax rate ⁽¹⁾	21 %	21 %	34 %
State taxes, net of federal benefit	— %	1 %	1 %
Tax rate differential for non-U.S. jurisdictions	(3)%	(6)%	(14)%
U.S. tax credits	(17)%	(11)%	(5)%
Excess tax benefits from stock-based compensation ⁽²⁾	(11)%	(6)%	(7)%
Transition Tax due to 2017 Tax Act ⁽³⁾	— %	— %	50 %
Rate change due to 2017 Tax Act ⁽³⁾	— %	— %	10 %
Discrete tax benefit due to IP Transfer ⁽⁴⁾	(343)%	— %	— %
Permanent items	9 %	14 %	4 %
Effective tax rate	(344)%	13 %	73 %

⁽¹⁾ The 2017 Tax Act reduced the U.S. statutory corporate income tax rate from 35% to 21%, effective January 1, 2018, which resulted in a blended U.S. statutory corporate tax rate of 34% during the year ended February 2, 2018.

⁽²⁾ VMware adopted ASU 2016-09 during the first quarter of fiscal 2018. As a result, net excess tax benefits recognized in connection with stock-based awards are included in the income tax provision on the consolidated statements of income. Prior to adopting the updated standard, such amounts were recognized in additional paid-in capital on the Company’s consolidated balance sheets.

⁽³⁾ The effective tax rate during the year ended February 2, 2018 was impacted by key components of the 2017 Tax Act, including the Transition Tax, and the remeasurement of VMware’s deferred tax assets and liabilities due to the reduction in the U.S. statutory corporate tax rate.

⁽⁴⁾ A discrete tax benefit of \$4.9 billion was recognized with a deferred tax asset during fiscal 2020. This deferred tax asset was recognized as a result of the book and tax basis difference on the IP transferred to an Irish subsidiary.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Deferred tax assets and liabilities are recognized for future tax consequences resulting from differences between the carrying amounts of assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to be reversed. Significant deferred tax assets and liabilities as of the periods presented consisted of the following (table in millions):

	January 31, 2020	February 1, 2019
Deferred tax assets:		
Accruals and other	\$ 169	\$ 79
Lease liabilities	152	—
Unearned revenue	390	295
Stock-based compensation	88	83
Tax credit and net operating loss carryforwards	583	349
Other assets, net	51	32
Intangible and other non-current assets	4,804	—
Gross deferred tax assets	6,237	838
Valuation allowance	(332)	(283)
Total deferred tax assets	5,905	555
Deferred tax liabilities:		
Deferred commissions	(133)	(129)
ROU Assets	(131)	—
Property, plant and equipment, net	(101)	(90)
Intangibles and other assets, net	—	(108)
Total deferred tax liabilities	(365)	(327)
Net deferred tax assets	\$ 5,540	\$ 228

Net deferred tax assets were comprised of deferred tax assets of \$5.6 billion and \$290 million as of January 31, 2020 and February 1, 2019, respectively, partially offset by deferred tax liabilities of \$16 million and \$62 million as of January 31, 2020 and February 1, 2019, respectively. Deferred tax liabilities were included in other liabilities on the consolidated balance sheets for the periods presented.

The increase in net deferred tax assets from February 1, 2019 to January 31, 2020 was primarily driven by the \$4.9 billion deferred tax asset recognized as a result of the book and tax basis difference on the IP transferred to Ireland, as well as the increase in tax attributes related to current year acquisitions as of January 31, 2020 as compared to February 1, 2019.

VMware has federal, state and foreign net operating loss carryforwards of \$971 million, \$940 million and \$199 million, as of January 31, 2020, respectively. VMware has federal, state and foreign net operating loss carryforwards of \$257 million, \$592 million and \$189 million as of February 1, 2019, respectively. The federal and state net operating loss carryforwards will start to expire in fiscal 2023, if not utilized. These net operating losses have various carryforward periods, including certain portions that can be carried over indefinitely. The majority of the Company's foreign net operating loss carryforwards can be carried forward indefinitely.

VMware has federal research and development ("R&D") tax credit carryforwards of \$34 million as of January 31, 2020. The amount of federal R&D tax credit carryforwards as of February 1, 2019 was not significant. The federal R&D tax credit will start to expire in fiscal 2026, if not utilized. VMware also has California and other state R&D credit carryforwards for income tax purposes of \$287 million and \$228 million as of January 31, 2020 and February 1, 2019, respectively. The California R&D tax credit carryforwards can be carried over indefinitely and the other state R&D tax credit carryforwards will start to expire in fiscal 2024, if not utilized. In addition, the amount of foreign tax credit carryforwards held as of January 31, 2020 and February 1, 2019 was not significant. VMware also had non-U.S. capital loss carryforwards of approximately \$22 million as of January 31, 2020, which can be carried forward indefinitely. The amount of non-U.S. capital loss carryforwards as of February 1, 2019 was not significant.

VMware determined that the realization of deferred tax assets relating to portions of the state net operating loss carryforwards, state R&D tax credits and foreign capital loss carryforwards did not meet the more-likely-than-not threshold.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Accordingly, a valuation allowance of \$332 million and \$283 million was recorded as of January 31, 2020 and February 1, 2019, respectively. If, in the future, new evidence supports the realization of the deferred tax assets related to these items, the valuation allowance will be reversed and a tax benefit will be recorded accordingly.

VMware believes it is more-likely-than-not that the net deferred tax assets as of January 31, 2020 and February 1, 2019, will be realized in the foreseeable future as VMware believes that it will generate sufficient taxable income in future years. VMware's ability to generate sufficient taxable income in future years in appropriate tax jurisdictions will determine the amount of net deferred tax asset balances to be realized in future periods. During the year ended January 31, 2020, the total change in the valuation allowance was \$49 million, which was primarily due to California R&D credits generated in the current year, partially offset by the California R&D usage.

For the periods presented, VMware's rate of taxation in non-U.S. jurisdictions was lower than the U.S. tax rate. VMware's non-U.S. earnings are primarily earned by its subsidiaries organized in Ireland, where the statutory rate is 12.5%. Prior to the year ended February 2, 2018, the Company did not recognize a deferred tax liability related to undistributed foreign earnings of its subsidiaries because such earnings were considered to be indefinitely reinvested in its foreign operations, or were remitted substantially free of U.S. tax. Under the 2017 Tax Act, all foreign earnings are subject to U.S. taxation. As a result, the Company repatriated, and expects to continue to repatriate, a substantial portion of its foreign earnings over time, to the extent that the foreign earnings are not restricted by local laws or result in significant incremental costs associated with repatriating the foreign earnings. As of January 31, 2020, the amount of deferred tax liability related to the potential repatriation of foreign earnings was not material. Further developments in non-U.S. tax jurisdictions and unfavorable changes in non-U.S. tax laws and regulations, such as foreign tax laws enacted in response to the 2017 Tax Act, could result in adverse changes to global taxation and materially affect VMware's financial position, results of operations, or annual effective tax rate.

Tax Sharing Agreement with Dell

On December 30, 2019, VMware entered into a second tax sharing agreement with Dell in connection with, and effective as of, the Pivotal acquisition. The tax sharing agreement with Dell, subject to certain exceptions, generally limit VMware's maximum annual tax liability to Dell to the amount VMware would owe on a separate tax return basis.

Although VMware's results are included in the Dell consolidated return for U.S. federal income tax purposes, VMware's income tax provision is calculated primarily as though VMware were a separate taxpayer. However, under certain circumstances, transactions between VMware and Dell are assessed using consolidated tax return rules.

VMware has made payments to Dell pursuant to the tax sharing agreement. The following table summarizes the payments made during the periods presented (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Payments from VMware to Dell, net	\$ 159	\$ 243	\$ 54

Payments from VMware to Dell under the tax sharing agreement relate to VMware's portion of federal income taxes on Dell's consolidated tax return as well as state tax payments for combined states. The timing of the tax payments due to and from related parties is governed by the tax sharing agreement. VMware's portion of the Transition Tax is governed by a letter agreement between Dell, EMC and VMware executed during the first quarter of fiscal 2020 (the "Letter Agreement"). The amounts that VMware pays to Dell for its portion of federal income taxes on Dell's consolidated tax return differ from the amounts VMware would owe on a separate tax return basis and the difference is recognized as a component of additional paid-in capital, generally in the period in which the consolidated tax return is filed. The difference between the amount of tax calculated on a separate tax return basis and the amount of tax calculated pursuant to the tax sharing agreement recorded in additional paid-in capital during the year ended January 31, 2020 was \$85 million, primarily due to a reduction in Transition Tax liability based on the terms of the Letter Agreement and certain tax attribute determination made by Dell. The amount recognized in additional paid-in capital during the years ended February 1, 2019 and February 2, 2018 was not significant.

As a result of the activity under the tax sharing agreement with Dell, amounts due to and from Dell was \$529 million and \$646 million as of January 31, 2020 and February 1, 2019, respectively, primarily related to VMware's estimated tax obligation resulting from the Transition Tax. The 2017 Tax Act included a deferral election for an eight-year installment payment method on the Transition Tax. The Company expects to pay the remainder of its Transition Tax over a period of six years.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Pivotal Tax Sharing Agreement with Dell

During the fourth quarter of fiscal 2020, VMware completed the acquisition of Pivotal. Pivotal will continue to file its separate tax return for U.S. federal income tax purposes as it left the Dell consolidated tax group at the time of Pivotal's IPO in April 2018. Pursuant to a tax sharing agreement, Pivotal historically received payments from Dell for the tax benefits derived from the inclusion of its losses in certain Dell U.S. federal and state group returns. Payments received from Dell were recognized as a component of additional paid-in capital. During the years ended January 31, 2020, February 1, 2019 and February 2, 2018, \$25 million, \$15 million and \$66 million, respectively, was recognized in additional paid-in capital related to Pivotal's tax sharing agreement with Dell. This has reduced the amount of benefit or expense received by Pivotal since the IPO to the amount of benefit or expenses Dell realizes from Pivotal's inclusion on unitary state tax returns.

In April 2019, Pivotal and Dell amended their tax sharing agreement with regard to the treatment of certain 2017 Tax Act implications not explicitly covered by the original terms of the tax sharing agreement. The amendment resulted in a one-time payment of \$27 million by Dell to Pivotal in August 2019.

During the years ended February 1, 2019 and February 2, 2018, payment received from Dell pursuant to the tax sharing agreement was \$44 million and \$36 million, respectively.

Unrecognized Tax Benefits

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits, excluding interest and penalties associated with unrecognized tax benefits, for the periods presented is as follows (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Balance, beginning of the year	\$ 385	\$ 305	\$ 265
Tax positions related to current year:			
Additions	116	57	63
Tax positions related to prior years:			
Additions	98	44	2
Reductions	(7)	(1)	(2)
Settlements	(28)	(4)	(9)
Reductions resulting from a lapse of the statute of limitations	(83)	(8)	(24)
Foreign currency effects	(2)	(8)	10
Balance, end of the year	\$ 479	\$ 385	\$ 305

Of the net unrecognized tax benefits, including interest and penalties, \$323 million and \$296 million were included in income tax payable on the consolidated balance sheets as of January 31, 2020 and February 1, 2019, respectively. Approximately \$313 million and \$266 million, respectively, would, if recognized, benefit VMware's annual effective income tax rate. VMware includes interest expense and penalties related to income tax matters in the income tax provision. VMware had accrued \$48 million and \$56 million of interest and penalties associated with unrecognized tax benefits as of January 31, 2020 and February 1, 2019, respectively. Income tax expense during the year ended February 1, 2019 included interest and penalties associated with uncertain tax positions of \$15 million. Interest and penalties associated with uncertain tax positions included in income tax expense (benefit) were not significant during the years ended January 31, 2020 and February 2, 2018.

The Dell-owned EMC consolidated group is routinely under audit by the IRS. All U.S. federal income tax matters have been concluded for years through 2015 while VMware was part of the Dell-owned EMC consolidated group. The IRS has started its examination of fiscal years 2015 through 2019 for the Dell consolidated group, which VMware was part of beginning fiscal 2017. In addition, VMware is under corporate income tax audits in various states and non-U.S. jurisdictions. Consistent with the Company's historical practices under the tax sharing agreement with EMC, when VMware becomes subject to federal tax audits as a member of Dell's consolidated group, the tax sharing agreement provides that Dell has authority to control the audit and represent Dell's and VMware's interests to the IRS.

Open tax years subject to examinations for larger non-U.S. jurisdictions vary beginning in 2008. Audit outcomes and the timing of audit settlements are subject to significant uncertainty. When considering the outcomes and the timing of tax examinations, the expiration of statutes of limitations for specific jurisdictions, or the timing and result of ruling requests from

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

taxing authorities, it is reasonably possible that total unrecognized tax benefits could be potentially reduced by approximately \$17 million within the next 12 months.

Q. Stockholders' Equity

Special Dividend

On July 1, 2018, VMware's board of directors declared a conditional \$11.0 billion Special Dividend, payable pro-rata to VMware stockholders as of the record date. During the fourth quarter of fiscal 2019, the conditions of the Special Dividend were met. The Special Dividend was paid on December 28, 2018 to stockholders of record as of the close of business on December 27, 2018 in the amount of \$26.81 per outstanding share of VMware common stock.

Stock awards that were outstanding at the time of the Special Dividend were adjusted pursuant to anti-dilution provisions in the Company's stock plan documents that provide for equitable adjustments to be determined by VMware's Compensation and Corporate Governance Committee in the event of an extraordinary cash dividend. A conversion ratio based on the per share dividend amount and VMware's closing stock price on December 28, 2018 was used to adjust the stock awards outstanding at the time of the Special Dividend. The adjustments to awards included increasing the number of outstanding restricted stock units and stock options, as well as reducing the exercise prices of outstanding stock options. The adjustments did not result in incremental stock-based compensation expense as the anti-dilutive adjustments were required by the Company's equity incentive plan.

VMware Class B Common Stock Conversion Rights

Each share of Class B common stock is convertible into one share of Class A common stock. If VMware's Class B common stock is distributed to security holders of Dell in a qualified distribution, the Class B shares will no longer be convertible into shares of Class A common stock unless a stockholder vote is obtained after certain conditions are satisfied. Prior to any such distribution, all Class B shares automatically convert into shares of Class A common stock if Dell transfers such shares to a third party that is not a successor or a Dell subsidiary or at such time as the number of shares of common stock owned by Dell or its successor falls below 20% of the outstanding shares of VMware's common stock. As of January 31, 2020, 307.2 million shares of Class A common stock were reserved for conversion.

VMware Equity Plan

In June 2007, VMware adopted its 2007 Equity and Incentive Plan (the "2007 Plan"). On June 25, 2019, VMware amended its 2007 Plan to increase the number of shares available for issuance by 13.0 million shares of Class A common stock. As of January 31, 2020, the number of authorized shares under the 2007 Plan was 145.2 million, including 6.1 million shares automatically added to the share reserve pursuant to anti-dilution provisions of the 2007 Plan triggered by payment of the Special Dividend (the "Anti-Dilution Adjustment"). The number of shares underlying outstanding equity awards that VMware assumes in the course of business acquisitions are also added to the 2007 Plan reserve on an as-converted basis. VMware has assumed 11.3 million shares, which accordingly have been added to authorized shares under the 2007 Plan reserve.

Awards under the 2007 Plan may be in the form of stock-based awards, such as restricted stock units, or stock options. VMware's Compensation and Corporate Governance Committee determines the vesting schedule for all equity awards. Generally, restricted stock grants made under the 2007 Plan have a three-year to four-year period over which they vest and vest 25% the first year and semi-annually thereafter. The per share exercise price for a stock option awarded under the 2007 Plan shall not be less than 100% of the per share fair market value of VMware Class A common stock on the date of grant. Most options granted under the 2007 Plan vest 25% after the first year and monthly thereafter over the following three years and expire between six and seven years from the date of grant. VMware utilizes both authorized and unissued shares to satisfy all shares issued under the 2007 Plan. As of January 31, 2020, there was an aggregate of 23.8 million shares of common stock available for issuance pursuant to future grants under the 2007 Plan, including 2.5 million shares included in the Anti-Dilution Adjustment.

Pivotal Equity Plan

Prior to the acquisition of Pivotal, Pivotal granted stock-based awards, such as restricted stock units or stock options to its employees. Pivotal's restricted stock grants generally vested over four years and options granted generally vested over 48 months. Upon completion of the acquisition by VMware, no further awards will be granted under the plan. Pivotal's outstanding unvested RSUs and options on the date of the acquisition were converted to VMware RSUs and options and valued at their historical carrying amounts.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

VMware Stock Repurchases

VMware purchases stock from time to time in open market transactions, subject to market conditions. 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, legal and regulatory requirements and other market and economic conditions. VMware is not obligated to purchase any shares under its stock repurchase programs. Purchases can be discontinued at any time VMware believes additional purchases are not warranted. From time to time, VMware also purchases stock in private transactions, such as those with Dell. All shares repurchased under VMware's stock repurchase programs are retired.

The following table summarizes stock repurchase authorizations approved by VMware's board of directors, which were open or completed during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 (amounts in table in millions):

Announcement Date	Amount Authorized	Expiration Date	Status
May 29, 2019	\$1,500	January 29, 2021	Open
August 14, 2017	1,000	August 31, 2019	Completed in fiscal 2020
January 26, 2017	1,200	February 2, 2018	Completed in fiscal 2018

In the aggregate, \$1.0 billion remained available for repurchase as of January 31, 2020.

The following table summarizes stock repurchase activity, including shares purchased from Dell, during the periods presented (aggregate purchase price in millions, shares in thousands):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Aggregate purchase price ⁽¹⁾	\$ 1,334	\$ 42	\$ 1,449
Class A common stock repurchased	7,664	286	13,977
Weighted-average price per share	\$ 174.02	\$ 148.07	\$ 103.66

⁽¹⁾ The aggregate purchase price of repurchased shares is classified as a reduction to additional paid-in capital until the balance is reduced to zero and the excess is recorded as a reduction to retained earnings.

VMware and Pivotal Restricted Stock

VMware's restricted stock primarily consists of RSU awards, which have been granted to employees. The value of an RSU grant is based on VMware's stock price on the date of the grant. The shares underlying the RSU awards are not issued until the RSUs vest. Upon vesting, each RSU converts into one share of VMware's Class A common stock.

VMware's restricted stock also includes PSU awards, which have been granted to certain VMware executives and employees. The PSU awards include performance conditions and, in certain cases, a time-based or market-based vesting component. Upon vesting, PSU awards convert into VMware's Class A common stock at various ratios ranging from 0.1 to 2.0 shares per PSU, depending upon the degree of achievement of the performance or market-based target designated by each award. If minimum performance thresholds are not achieved, then no shares are issued.

Pivotal's restricted stock consisted of RSU awards. The value of the grant was based on Pivotal's stock price on the date of the grant. Upon the completion of the acquisition by VMware, all outstanding Pivotal RSUs were converted to VMware RSUs using a conversion ratio of 0.1.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes restricted stock activity for VMware and Pivotal since February 3, 2017 (units in thousands):

	VMware RSUs		Pivotal RSUs	
	Number of Units	Weighted-Average Grant Date Fair Value (per unit)	Number of Units	Weighted-Average Grant Date Fair Value (per unit)
Outstanding, February 3, 2017	20,451	\$ 67.41	—	\$ —
Granted	7,838	93.84	—	—
Vested	(9,070)	67.89	—	—
Forfeited	(1,859)	72.68	—	—
Outstanding, February 2, 2018	17,360	78.62	—	—
Granted	6,663	146.61	9,854	15.78
Special Dividend adjustment	3,236	n/a	n/a	n/a
Vested	(7,370)	75.45	—	—
Forfeited	(1,674)	86.90	(353)	16.09
Outstanding, February 1, 2019 ⁽¹⁾	18,215	90.06	9,501	15.77
Granted ⁽²⁾	9,074	157.07	20,504	16.02
Vested	(8,179)	80.28	(4,009)	15.56
Forfeited ⁽³⁾	(1,636)	101.29	(25,996)	16.01
Outstanding, January 31, 2020	17,474	128.38	—	—

⁽¹⁾ The weighted-average grant date fair value of outstanding RSU awards as of February 1, 2019 reflects the adjustments to the awards as a result of the Special Dividend.

⁽²⁾ RSUs granted under the VMware equity plan includes 2.2 million RSUs issued for outstanding unvested RSUs assumed as part of the Pivotal acquisition.

⁽³⁾ RSUs forfeited under the Pivotal equity plan includes 21.7 million RSUs that were converted to VMware RSUs as part of the Pivotal acquisition, using a conversion ratio of 0.1.

As of January 31, 2020, the 17.5 million units outstanding included 16.3 million of RSUs and 1.2 million of PSUs. The above table includes RSUs issued for outstanding unvested RSUs in connection with business combinations.

Restricted stock that is expected to vest as of January 31, 2020 was as follows (units in thousands, aggregate intrinsic value in millions):

	Number of Units	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value ⁽¹⁾
Expected to vest	15,670	2.39	\$ 2,320

⁽¹⁾ The aggregate intrinsic value represents the total pre-tax intrinsic values based on VMware's closing stock price of 148.06 as of January 31, 2020, which would have been received by the RSU holders had the RSUs been issued as of January 31, 2020.

The aggregate vesting date fair value of VMware's restricted stock that vested during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 was \$1.4 billion, \$1.1 billion and \$946 million, respectively. As of January 31, 2020, restricted stock representing 17.5 million shares of VMware's Class A common stock were outstanding, with an aggregate intrinsic value of \$2.6 billion based on VMware's closing stock price as of January 31, 2020.

The aggregate vesting date fair value of Pivotal's restricted stock that vested during the year ended January 31, 2020, prior to the acquisition, was \$68 million. No restricted stock vested during the years ended February 1, 2019 and February 2, 2018.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

VMware and Pivotal Employee Stock Purchase Plans

In June 2007, VMware adopted its 2007 Employee Stock Purchase Plan (the “ESPP”), which is intended to be qualified under Section 423 of the Internal Revenue Code. On June 25, 2019, VMware amended its ESPP to increase the number of shares available for issuance by 9.0 million shares of Class A common stock. As of January 31, 2020, the number of authorized shares under the ESPP was a total of 32.3 million shares. Under the ESPP, eligible VMware employees are granted options to purchase shares at the lower of 85% of the fair market value of the stock at the time of grant or 85% of the fair market value at the time of exercise. The option period is generally twelve months and includes two embedded six-month option periods. Options are exercised at the end of each embedded option period. If the fair market value of the stock is lower on the first day of the second embedded option period than it was at the time of grant, then the twelve-month option period expires and each enrolled participant is granted a new twelve-month option. As of January 31, 2020, 14.3 million shares of VMware Class A common stock were available for issuance under the ESPP.

The following table summarizes ESPP activity for VMware during the periods presented (cash proceeds in millions, shares in thousands):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Cash proceeds	\$ 172	\$ 161	\$ 65
Class A common stock purchased	1,489	1,895	903
Weighted-average price per share	\$ 115.51	\$ 84.95	\$ 72.40

As of January 31, 2020, \$95 million of ESPP withholdings were recorded as a liability in accrued expenses and other on the consolidated balance sheets for the purchase that occurred on February 29, 2020.

Prior to the acquisition of Pivotal, Pivotal granted options to eligible Pivotal employees to purchase shares of its Class A common stock at the lower of 85% of the fair market value of the stock at the time of grant or 85% of the fair market value of the Pivotal stock at the time of exercise. Pivotal’s ESPP activity was not material during the periods presented.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

VMware and Pivotal Stock Options

The following table summarizes stock option activity for VMware and Pivotal since February 3, 2017 (shares in thousands):

	VMware Stock Options		Pivotal Stock Options	
	Number of Shares	Weighted-Average Exercise Price (per share)	Number of Shares	Weighted-Average Exercise Price (per share)
Outstanding, February 3, 2017	1,991	\$ 69.38	39,361	\$ 6.72
Granted	745	13.79	20,323	9.73
Forfeited	(36)	55.44	(2,380)	8.13
Expired	(3)	93.87	(1,290)	6.24
Exercised	(1,050)	53.50	(1,626)	5.99
Outstanding, February 2, 2018	1,647	54.63	54,388	7.82
Granted	574	16.07	2,832	14.03
Special Dividend adjustment	348	n/a	n/a	n/a
Forfeited	(31)	24.44	(2,028)	9.35
Expired	—	—	(273)	7.02
Exercised	(569)	46.73	(9,018)	6.89
Outstanding, February 1, 2019 ⁽¹⁾	1,969	36.50	45,901	8.31
Granted ⁽²⁾	1,571	73.19	—	—
Forfeited ⁽³⁾	(149)	52.83	(10,822)	10.65
Expired	—	—	(128)	10.10
Exercised ⁽⁴⁾	(776)	39.94	(34,951)	7.59
Outstanding, January 31, 2020	2,615	56.58	—	—

⁽¹⁾ The weighted-average exercise price of options outstanding as of February 1, 2019 reflects the adjustments to the options as a result of the Special Dividend.

⁽²⁾ Stock option granted under the VMware equity plan includes 0.6 million options issued for unvested options assumed as part of the Pivotal acquisition.

⁽³⁾ Stock options forfeited under the Pivotal equity plan includes 6.2 million options converted to VMware options as part of the Pivotal acquisition, using a conversion ratio of 0.1.

⁽⁴⁾ Stock options exercised under the Pivotal equity plan includes 22.4 million of vested options that were settled in cash as part of the Pivotal acquisition.

The above table includes stock options granted in conjunction with unvested stock options assumed in business combinations. As a result, the weighted-average exercise price per share may vary from the VMware stock price at time of grant

The stock options outstanding as of January 31, 2020 had an aggregate intrinsic value of \$239 million based on VMware's closing stock price as of January 31, 2020.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Options outstanding that are exercisable and that have vested and are expected to vest as of January 31, 2020 were as follows (outstanding options in thousands, aggregate intrinsic value in in millions):

VMware Stock Options				
	Outstanding Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value⁽¹⁾
Exercisable	945	\$ 47.24	3.81	\$ 95
Vested and expected to vest	2,589	56.13	6.41	238

⁽¹⁾ The aggregate intrinsic values represent the total pre-tax intrinsic values based on VMware's closing stock price of \$148.06 as of January 31, 2020, which would have been received by the option holders had all in-the-money options been exercised as of that date.

The total fair value of VMware stock options that vested during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 was \$64 million, \$35 million and \$32 million, respectively. Total fair value of Pivotal stock options that vested during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 was \$27 million, \$41 million and \$23 million, respectively.

The VMware stock options exercised during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 had a pre-tax intrinsic value of \$103 million, \$56 million, and \$62 million, respectively. The Pivotal options exercised during the years ended January 31, 2020 and February 1, 2019 had a pre-tax intrinsic value of \$278 million and \$97 million, respectively, and was not material during the year ended February 2, 2018. The pre-tax intrinsic value of Pivotal options exercised during the year ended January 31, 2020 includes vested options that were settled in cash as part of the Pivotal acquisition.

VMware Shares Repurchased for Tax Withholdings

During the years ended January 31, 2020, February 1, 2019 and February 2, 2018, VMware repurchased 3.0 million, 2.6 million, 3.3 million, respectively, of Class A common stock, for \$521 million, \$373 million, \$348 million, respectively, to cover tax withholding obligations in connection with such equity awards. These amounts may differ from the amounts of cash remitted for tax withholding obligations on the consolidated statements of cash flows due to the timing of payments. Pursuant to the respective award agreements, these shares were withheld in conjunction with the net share settlement upon the vesting of restricted stock and restricted stock units (including PSUs) during the period. The value of the withheld shares, including restricted stock units, was classified as a reduction to additional paid-in capital.

Net Excess Tax Benefits

Net excess tax benefits recognized in connection with stock-based awards are included in income tax provision on the consolidated statements of income. Net excess tax benefits recognized during the years ended January 31, 2020, February 1, 2019 and February 2, 2018 were \$182 million, \$116 million and \$106 million, respectively.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Stock-Based Compensation

The following table summarizes the components of total stock-based compensation included in VMware's consolidated statements of income during the periods presented (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Cost of license revenue	\$ 1	\$ 1	\$ 2
Cost of subscription and SaaS revenue	13	7	5
Cost of services revenue	83	58	53
Research and development	459	391	363
Sales and marketing	293	226	205
General and administrative	168	117	84
Stock-based compensation	1,017	800	712
Income tax benefit	(347)	(253)	(232)
Total stock-based compensation, net of tax	\$ 670	\$ 547	\$ 480

As of January 31, 2020, the total unrecognized compensation cost for stock options and restricted stock was \$1.8 billion and will be recognized through fiscal 2024 with a weighted-average remaining period of 1.5 years. Stock-based compensation related to VMware equity awards held by VMware employees is recognized on VMware's consolidated statements of income over the awards' requisite service periods.

Fair Value of VMware and Pivotal Options

The fair value of each option to acquire VMware Class A common stock and Pivotal Class A common stock granted during the periods presented was estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
<u>VMware Stock Options</u>			
Dividend yield	None	None	None
Expected volatility	34.0%	31.9%	29.1%
Risk-free interest rate	1.5%	2.9%	1.7%
Expected term (in years)	2.7	3.2	3.3
Weighted-average fair value at grant date	\$ 98.00	\$ 143.01	\$ 83.62
<u>Pivotal Stock Options</u>			
Dividend yield	n/a	None	None
Expected volatility	n/a	33.4%	34.3%
Risk-free interest rate	n/a	2.8%	2.0%
Expected term (in years)	n/a	6.08	6.08
Weighted-average fair value at grant date	n/a	\$ 5.23	\$ 3.58

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
<i>VMware Employee Stock Purchase Plan</i>			
Dividend yield	None	None	None
Expected volatility	27.4%	33.5%	22.6%
Risk-free interest rate	1.7%	2.0%	1.2%
Expected term (in years)	0.6	0.8	0.9
Weighted-average fair value at grant date	\$ 35.66	\$ 34.72	\$ 21.93

The weighted-average grant date fair value of VMware stock options can fluctuate from period to period primarily due to higher valued options assumed through business combinations with exercise prices lower than the fair market value of VMware's stock on the date of grant.

For equity awards granted under the VMware equity plan, volatility was based on an analysis of historical stock prices and implied volatilities of VMware's Class A common stock. The expected term was based on historical exercise patterns and post-vesting termination behavior, the term of the option period for grants made under the ESPP, or the weighted-average remaining term for options assumed in acquisitions. VMware's expected dividend yield input was zero as the Company has not historically paid, nor expects in the future to pay, regular dividends on its common stock. The risk-free interest rate was based on a U.S. Treasury instrument whose term is consistent with the expected term of the stock options.

For equity awards granted under the Pivotal equity plan, volatility was based on the volatility of a group of comparable public companies based on size, stage of life cycle, profitability, growth and other factors. The expected term was estimated using the simplified method and was determined based on the vesting terms, exercise terms and contractual lives of the options. Pivotal's expected dividend yield input was zero as the Company has not historically paid regular dividends on its common stock. The risk-free interest rate was based on a U.S. Treasury instrument whose term was consistent with the expected term of the stock options.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Accumulated Other Comprehensive Income (Loss)

The changes in components of accumulated other comprehensive income (loss) during the periods presented were as follows (tables in millions):

	Unrealized Gain (Loss) on Available-for-Sale Securities	Unrealized Gain (Loss) on Forward Contracts	Foreign Currency Translation Adjustments	Total
Balance, February 2, 2018	\$ (15)	\$ —	\$ 26	\$ 11
Adjustments related to adoption of ASU 2016-01 and 2018-02	(15)	—	—	(15)
Unrealized gains (losses), net of tax (benefit) of \$—, \$—, \$—, and \$—	—	2	—	2
Amounts reclassified from accumulated other comprehensive income (loss) to the consolidated statements of income, net of tax (provision) benefit of \$10, \$—, \$— and \$10	30	—	—	30
Foreign currency translation adjustments	—	—	(26)	(26)
Other comprehensive income (loss), net	30	2	(26)	6
Less: Change in other comprehensive income (loss) attributable to non-controlling interests	—	—	4	4
Balance, February 1, 2019	—	2	(4)	(2)
Amounts reclassified from accumulated other comprehensive income (loss) to the consolidated statements of income, net of tax (provision) benefit of \$—, \$—, \$— and \$—	—	(2)	—	(2)
Other comprehensive income (loss), net	—	(2)	—	(2)
Balance, January 31, 2020	\$ —	\$ —	\$ (4)	\$ (4)

Unrealized gains and losses on VMware's available-for-sale securities are reclassified to investment income on the consolidated statements of income in the period that such gains and losses are realized.

The effective portion of gains or losses resulting from changes in the fair value of forward contracts designated as cash flow hedging instruments is reclassified to its related operating expense line item on the consolidated statements of income in the same period that the underlying expenses are incurred. The amounts recorded to their related operating expense functional line items on the consolidated statements of income were not significant to the individual functional line items during the periods presented.

R. Segment Information

VMware operates in one reportable operating segment, thus all required financial segment information is included in the consolidated financial statements. Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and assessing performance. VMware's chief operating decision maker allocates resources and assesses performance based upon discrete financial information at the consolidated level.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Revenue by type during the periods presented was as follows (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
Revenue:			
License	\$ 3,181	\$ 3,042	\$ 2,628
Subscription and SaaS	1,877	1,303	927
Total license and subscription and SaaS	5,058	4,345	3,555
Services:			
Software maintenance	4,754	4,351	3,919
Professional services	999	917	862
Total services	5,753	5,268	4,781
Total revenue	\$ 10,811	\$ 9,613	\$ 8,336

Revenue by geographic area during the periods presented was as follows (table in millions):

	For the Year Ended		
	January 31, 2020	February 1, 2019	February 2, 2018
United States	\$ 5,405	\$ 4,696	\$ 4,200
International	5,406	4,917	4,136
Total	\$ 10,811	\$ 9,613	\$ 8,336

Revenue by geographic area is based on the ship-to addresses of VMware's customers. No individual country other than the U.S. accounted for 10% or more of revenue during the years ended January 31, 2020, February 1, 2019 and February 2, 2018.

Long-lived assets by geographic area, which primarily include property and equipment, net, as of the periods presented were as follows (table in millions):

	January 31, 2020	February 1, 2019
United States	\$ 860	\$ 849
International	209	113
Total	\$ 1,069	\$ 962

No individual country other than the U.S. accounted for 10% or more of these assets as of January 31, 2020 and February 1, 2019.

VMware's product and service solutions are organized into three main product groups:

- Software-Defined Data Center
- Hybrid and Multi-Cloud Computing
- Digital Workspace—End-User Computing

VMware develops and markets product and service offerings within each of these three product groups. Additionally, synergies are leveraged across these three product areas. VMware's products and service solutions from each of its product groups may also be bundled as part of an enterprise agreement arrangement or packaged together and sold as a suite. Accordingly, it is not practicable to determine revenue by each of the three product groups described above.

VMware, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

S. Selected Quarterly Financial Data (unaudited)

Quarterly financial data for fiscal 2020 and 2019 were as follows (tables in millions, except per share amounts):

Fiscal 2020	Q1 2020⁽¹⁾	Q2 2020⁽¹⁾	Q3 2020⁽¹⁾	Q4 2020
Total revenue	\$ 2,450	\$ 2,632	\$ 2,656	\$ 3,073
Net income attributable to VMware, Inc.	380	5,303	407	321
Net income per weighted-average share attributable to VMware, Inc. common stockholders, basic for Classes A and B	\$ 0.91	\$ 12.72	\$ 0.98	\$ 0.77
Net income per weighted-average share attributable to VMware, Inc. common stockholders, diluted for Classes A and B	\$ 0.89	\$ 12.47	\$ 0.96	\$ 0.76
Fiscal 2019	Q1 2019⁽¹⁾	Q2 2019⁽¹⁾	Q3 2019⁽¹⁾	Q4 2019⁽¹⁾
Total revenue	\$ 2,159	\$ 2,332	\$ 2,363	\$ 2,759
Net income attributable to VMware, Inc.	299	433	422	496
Net income per weighted-average share attributable to VMware, Inc. common stockholders, basic for Classes A and B	\$ 0.73	\$ 1.04	\$ 1.01	\$ 1.19
Net income per weighted-average share attributable to VMware, Inc. common stockholders, diluted for Classes A and B	\$ 0.71	\$ 1.03	\$ 1.00	\$ 1.17

⁽¹⁾ Adjusted to reflect the recast of prior period information due to the Pivotal acquisition, which was accounted for as a transaction between entities under common control (refer to Note B).

T. Coronavirus (COVID-19) Impact

The worldwide spread of the COVID-19 virus is expected to result in a global slowdown of economic activity which is likely to decrease demand for a broad variety of goods and services, including from our customers, while also disrupting sales channels, marketing activities and supply chains for an unknown period of time until the disease is contained. We expect this to have a negative impact on our sales and our results of operations, the size and duration of which we are currently unable to predict. In preparing our consolidated financial statements in accordance with GAAP, we are required to make estimates, assumptions and judgments that affect the amounts reported in our financial statements and the accompanying disclosures. Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. As of the date of issuance of the financial statements, we are not aware of any specific event or circumstance that would require us to update our estimates, judgments or revise the carrying value of our assets or liabilities. These estimates may change, as new events occur and additional information is obtained, and are recognized in the consolidated financial statements as soon as they become known. Actual results could differ from those estimates and any such differences may be material to our financial statements.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We carried out an evaluation required by the Securities Exchange Act of 1934, amended (the “Exchange Act”), under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) of the Exchange Act, as of the end of the period covered by this report. Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms and to provide reasonable assurance that such information is accumulated and communicated to

our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosures.

Management’s Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) of the Exchange Act. Management has assessed the effectiveness of our internal control over financial reporting as of January 31, 2020 based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. As a result of this assessment, management concluded that, as of January 31, 2020, our internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. As discussed in Note B to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K, we completed the acquisition of Pivotal during fiscal 2020, which was accounted for as a transaction between entities under common control. Pivotal represented 13% of our total assets and 7% of our total revenue as of and for the fiscal year ended January 31, 2020. As a result of the timing of the acquisition and based on Securities and Exchange Commission staff guidance, the internal control over financial reporting of Pivotal was excluded from management’s assessment of internal control over financial reporting as of January 31, 2020. The effectiveness of our internal control over financial reporting as of January 31, 2020 has been audited by PricewaterhouseCoopers, LLP, an independent registered public accounting firm, as stated in their report which appears in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the most recent fiscal quarter ended January 31, 2020 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Controls

Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives as specified above. Our management, including our principal executive officer and principal financial officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management does not expect, however, that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We will furnish to the Securities and Exchange Commission a definitive Proxy Statement no later than 120 days after the close of the fiscal year ended January 31, 2020. The information required by this item is incorporated herein by reference to the Proxy Statement. Also see “Information About Our Executive Officers” in Part I of this Annual Report on Form 10-K.

We have a code of ethics that applies to all of our employees, including our executive officers. Our Business Conduct Guidelines (available on our website) satisfy the requirements set forth in Item 406 of Regulation S-K and apply to all relevant persons set forth therein. We intend to disclose on our website at www.vmware.com amendments to, and, if applicable, waivers of, our code of ethics.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated herein by reference to the section of the Company’s Proxy Statement entitled “Compensation of Executive Officers.”

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

The information required by this item is incorporated herein by reference to the section of the Company’s Proxy Statement entitled “Security Ownership of Certain Beneficial Owners and Management.”

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

The information required by this item is incorporated herein by reference to the section of the Company’s Proxy Statement entitled “Our Board of Directors and Nominees” and “Transactions with Related Persons.”

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated herein by reference to the section of the Company’s Proxy Statement entitled “Ratification of Selection of Independent Auditor.”

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

The following documents are filed as a part of this Annual Report on Form 10-K:

1. *Financial Statements*: The information relating to our financial statements, and Report of Independent Registered Public Accounting Firm required by this Item is filed as part of this Annual Report on Form 10-K in Item 8, entitled “Financial Statements and Supplementary Data.”
2. *Financial Statement Schedule*: Schedule II Valuation and Qualifying Accounts is filed as part of this Annual Report on Form 10-K and should be read in conjunction with the Consolidated Financial Statements and Notes thereto.
3. *Exhibits*: The exhibits listed below are filed or incorporated by reference as part of this Annual Report on Form 10-K.

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
2.1	Agreement and Plan Merger among VMware, Inc., Calistoga Merger Corp. and Carbon Black, Inc. dated as of August 22, 2019	8-K	001-33622	2.1	8/22/19
2.2	Agreement and Plan of Merger among VMware, Inc., Raven Transaction Sub, Inc. and Pivotal Software, Inc. dated as of August 22, 2019	8-K	001-33622	2.1	8/22/19
3.1	Amended and Restated Certificate of Incorporation	10-Q	001-33622	3.1	6/9/17
3.2	Amended and Restated Bylaws	8-K	001-33622	3.1	2/23/17
4.1	Form of Specimen Common Stock Certificate	S-1/A-4	333-142368	4.1	7/27/07
4.2	Indenture by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated August 21, 2017	8-K	001-33622	4.1	8/21/17
4.3	First Supplemental Indenture by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated August 21, 2017	8-K	001-33622	4.2	8/21/17
4.4	Second Supplemental Indenture by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated August 21, 2017	8-K	001-33622	4.3	8/21/17
4.5	Third Supplemental Indenture by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated August 21, 2017	8-K	001-33622	4.4	8/21/17
4.6*	Description of VMware, Inc.’s securities				
10.1	Amended and Restated Master Transaction Agreement between VMware, Inc., Dell Technologies Inc. and EMC Corporation dated January 9, 2018	10-K	001-33622	10.1	3/29/18
10.2	Second Amended and Restated Administrative Services Agreement between VMware, Inc., Dell Technologies Inc. and EMC Corporation dated January 18, 2019	10-K	001-33622	10.2	3/29/19
10.3	Second Amended and Restated Tax Sharing Agreement between VMware, Inc. and Dell Technologies Inc. effective as of December 30, 2019	8-K	001-33622	10.1	12/30/19
10.4	Form of Intellectual Property Agreement between VMware, Inc. and EMC Corporation	S-1/A-1	333-142368	10.4	6/11/07
10.5	Amended and Restated Real Estate License Agreement between VMware, Inc. and EMC Corporation dated September 21, 2015	10-Q	001-33622	10.5	11/9/15
10.6+	Amended and Restated 2007 Equity and Incentive Plan, as amended June 25, 2019	10-Q	001-33622	10.6	9/9/19
10.7+	Form of Indemnification Agreement for VMware, Inc. Directors and Executive Officers, as approved April 5, 2017	10-Q	001-33622	10.7	6/9/17
10.8	Amended and Restated Insurance Matters Agreement between VMware, Inc., Dell Technologies Inc. and EMC Corporation dated January 9, 2018	10-K	001-33622	10.8	3/29/18

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.9+	Form of Stock Option Agreement, as amended May 13, 2015	10-Q	001-33622	10.9	8/5/15
10.10+	Form of Restricted Stock Unit Agreement, as amended June 14, 2019	10-Q	001-33622	10.10	9/9/19
10.11+	Amended and Restated 2007 Employee Stock Purchase Plan, as amended June 25, 2019	10-Q	001-33622	10.11	9/9/19
10.12+	Executive Bonus Program, as amended and restated April 16, 2018	10-Q	001-33622	10.12	6/11/18
10.13	Agreement of Purchase and Sale between Roche Palo Alto LLC and VMware, Inc. dated March 16, 2011	10-Q	001-33622	10.24	8/3/11
10.14	Amended and Restated Ground Lease between VMware, Inc. and the Board of Trustees of the Leland Stanford Junior University dated June 13, 2011 (3431 Hillview Campus)	10-Q	001-33622	10.25	8/3/11
10.15	Ground Lease between 3401 Hillview LLC. and the Board of Trustees of the Leland Stanford Junior University dated as of February 2, 2006	10-Q	001-33622	10.26	8/3/11
10.16+	Form of Performance Stock Unit Agreement, as amended June 14, 2019	10-Q	001-33622	10.16	9/9/19
10.17+	Non-Qualified Deferred Compensation Plan, effective as of January 1, 2014	10-K	001-33622	10.26	2/25/14
10.18**	Non-Qualified Deferred Compensation Plan Adoption Agreement, amended and restated as of January 1, 2020				
10.19	Third Amendment to Ground Lease by and between the Board of Trustees of the Leland Stanford Junior University and 3401 Hillview LLC dated as of January 1, 2014	10-Q	001-33622	10.30	5/1/14
10.20	Promissory Note for \$270 million due and payable on December 1, 2022, issued to EMC Corporation dated January 31, 2014	10-Q	001-33622	10.34	5/1/14
10.21+	Change in Control Retention Plan, as amended and restated September 14, 2018	10-Q	001-33622	10.22	12/10/18
10.22	Stock Purchase Agreement, dated as of March 29, 2017, by and among Dell Technologies Inc., EMC Equity Assets LLC and VMware, Inc.	8-K	001-33622	10.1	3/30/17
10.23	Governance Letter Agreement, dated as of July 1, 2018, by and between VMware, Inc. and Dell Technologies Inc.	8-K	001-33622	10.1	7/2/18
10.24+	Executive Severance Plan, adopted September 14, 2018	8-K	001-33622	99.1	9/18/18
10.25	Waiver dated as of November 14, 2018, by and between VMware, Inc. and Dell Technologies	8-K	001-33622	10.1	11/15/18
10.26	Letter Agreement between VMware, Inc., Dell Technologies Inc. and EMC Corporation dated April 1, 2019, in connection with the parties' Amended and Restated Tax Sharing Agreement dated September 6, 2016	10-Q	001-33622	10.32	6/10/19
10.27	Tender and Support Agreement by and among VMware, Inc., Calistoga Merger Corp. and specified stockholders entered into as of August 22, 2019	8-K	001-33622	10.1	8/22/19
10.28	Voting Agreement between VMware, Inc. and Ford Motor Company dated as of August 22, 2019	8-K	001-33622	10.1	8/22/19
10.29	Consent and Support Agreement by and among VMware, Inc., Dell Technologies, Inc., and EMC Equity Assets LLC and, solely with respect to Section 5 and 6, EMC Corporation and VMW Holdco LLC dated as of August 22, 2019	8-K	001-33622	10.2	8/22/19
21*	List of subsidiaries				
23*	Consent of PricewaterhouseCoopers LLP				

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
31.1*	Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2*	Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
32.1†	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
32.2†	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
101.INS*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				
101.SCH*	Inline XBRL Taxonomy Extension Schema				
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase				
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase				
104	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Inline XBRL document (included in Exhibit 101)				

+ Indicates management contract or compensatory plan or arrangement

* Filed herewith

† Furnished herewith

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

VMWARE, INC.

Dated: March 26, 2020

By: /s/ Patrick Gelsinger

Patrick Gelsinger
Chief Executive Officer

Dated: March 26, 2020

By: /s/ J. Andrew Munk

J. Andrew Munk
Chief Accounting Officer
(Principal Accounting Officer)

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Patrick Gelsinger, Amy Olli and Zane Rowe, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed by the following persons on behalf of the Registrant in the capacities indicated and on the dates indicated.

<u>Date</u>	<u>Signature</u>	<u>Title</u>
March 26, 2020	<u>/s/ Patrick Gelsinger</u> Patrick Gelsinger	Chief Executive Officer and Director (Principal Executive Officer)
March 26, 2020	<u>/s/ Zane Rowe</u> Zane Rowe	Chief Financial Officer and Executive Vice President (Principal Financial Officer)
March 26, 2020	<u>/s/ Michael Dell</u> Michael Dell	Chairman
March 26, 2020	<u>/s/ Anthony Bates</u> Anthony Bates	Director
March 26, 2020	<u>/s/ Marianne Brown</u> Marianne Brown	Director
March 26, 2020	<u>/s/ Michael Brown</u> Michael Brown	Director
March 26, 2020	<u>/s/ Donald Carty</u> Donald Carty	Director
	<u>Egon Durban</u> Egon Durban	Director
March 26, 2020	<u>/s/ Karen Dykstra</u> Karen Dykstra	Director
March 26, 2020	<u>/s/ Paul Sagan</u> Paul Sagan	Director

VMWARE, INC.
SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS
(in millions)

Tax Valuation Allowance	Balance at Beginning of Period	Tax Valuation Allowance Charged to Income Tax Provision	Tax Valuation Allowance Credited to Other Accounts	Tax Valuation Allowance Credited to Income Tax Provision	Balance at End of Period
Year ended January 31, 2020 income tax valuation allowance	\$ 283	\$ 89	\$ —	\$ (40)	\$ 332
Year ended February 1, 2019 income tax valuation allowance	310	65	(32)	(60)	283
Year ended February 2, 2018 income tax valuation allowance	253	99	—	(42)	310

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO
SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

The following is a brief description of Class A common stock, par value \$0.01 per share (the "Class A Common Stock") of VMware, Inc. (the "Company"), which is the only security of the Company registered pursuant to Section 12 of the Securities Exchange Act of 1934.

Description of Class A Common Stock

General

The following description does not purport to be complete and is subject to, and qualified in its entirety by, the provisions of our Amended and Restated Certificate of Incorporation, our Amended and Restated Bylaws and the Delaware General Corporation Law (the "DGCL"). Copies of our Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and our Amended and Restated Bylaws (the "Bylaws") have been filed with the Securities and Exchange Commission (the "SEC") as exhibits to our Annual Report on Form 10-K.

Authorized Capital Stock

As of January 31, 2020, the authorized capital stock of the Company consists of 2,500,000,000 shares of Class A Common Stock, 1,000,000,000 shares of Class B common stock, par value \$0.01 per share (the "Class B Common Stock," and collectively with Class A Common Stock, the "Common Stock") and 100,000,000 shares of preferred stock, par value \$0.01 per share (the "Preferred Stock"). The rights of the holders of Class A Common Stock and Class B Common Stock are identical, except with respect to voting, conversion, the election of directors, certain actions that require the consent of holders of Class B Stock and other protective provisions.

Class A Common Stock

Fully Paid and Nonassessable

All of our outstanding shares of Class A Common Stock are validly issued, fully paid and nonassessable.

Voting rights

The holders of Class A Common Stock are entitled to one vote per share and holders of Class B Common Stock are entitled to 10 votes per share. The holders of Class B Stock, voting separately as a class, are entitled to elect 80% of the total number of the directors on the Company's Board of Directors (the "Board") which the Company would have if there were no vacancies on the Board at the time. Subject to any rights of any series of Preferred Stock to elect

directors, the holders of Class A Common Stock and the holders of Class B Common Stock, voting together as a single class, are entitled to elect the remaining directors on the Board, which at no time will be less than one director. The Company's Bylaws provide that, except as otherwise provided by law, the Certificate of Incorporation, any Certificate of Designations or the Bylaws, when a quorum is present, the affirmative votes of the holders of shares representing at least a majority of votes actually present in person or represented by proxy at the meeting and entitled to vote on a matter constitutes the act of the stockholders. No stockholder is entitled to any right to cumulative voting.

Dividend rights

The Board may from time to time declare, and the Company may pay, dividends on its outstanding shares in the manner and upon the terms and conditions provided by law and the Certificate of Incorporation. Any future determination to declare cash dividends will be made at the discretion of the Board, subject to the consent of the holders of Class B Common Stock pursuant to the Certificate of Incorporation. Holders of Class A Common Stock and Class B Common Stock share equally on a per share basis in any dividend declared on the Common Stock by the Board. No dividend or distribution that is payable in shares of Common Stock, including distributions pursuant to stock splits or divisions of Common Stock, may be made unless: (a) shares of Class A Common Stock are paid or distributed only in respect of Class A Common Stock, (b) shares of Class B Common Stock are paid or distributed only in respect of Class B Common Stock, (c) no such dividend or distribution is made in respect of the Class A Common Stock unless simultaneously also made in respect of the Class B Common Stock, (d) no such dividend or distribution is made in respect of the Class B Common Stock unless simultaneously also made in respect of the Class A Common Stock and (e) the number of shares of Class A Common Stock paid or distributed in respect of each outstanding share of Class A Common Stock is equal to the number of shares of Class B Common Stock paid or distributed in respect of each outstanding share of Class B Common Stock.

Rights Upon Dissolution, Liquidation or Winding Up

In the event of any dissolution, liquidation or winding up of the affairs of the Company, whether voluntary or involuntary, after payment in full of the amounts required to be paid to the holders of Preferred Stock pursuant to the provisions of a Certificate of Designations, the remaining assets and funds of the Company shall be distributed pro rata to the holders of Common Stock, and the holders of Class A Common Stock and the holders of Class B Common Stock shall be entitled to receive the same amount per share in respect thereof. For these purposes, the voluntary sale, conveyance, lease, license, exchange or transfer (for cash, shares of stock, securities or other consideration) of all or substantially all of the assets of the Company or a consolidation or merger of the Company with one or more other entities (whether or not the Company is the entity surviving such consolidation or merger) shall not be deemed to be a liquidation, dissolution or winding up, voluntary or involuntary.

No Preemptive or Similar Rights

The holders of shares of Class A Common Stock have no preemptive or similar rights.

Conversion

The shares of Class A Common Stock are not convertible into any other series or class of securities. Each share of Class B Common Stock is convertible into one share of Class A Common Stock at any time.

Listing

The Class A Common Stock is listed on the New York Stock Exchange under the symbol “VMW.”

Limitation on Rights of Holdings of Class A Common Stock - Preferred Stock

The Board has the authority, without further action by the Company’s stockholders, to issue up to 100,000,000 shares of Preferred Stock in one or more series. The Board may designate the rights, preferences, privileges and restrictions of the Preferred Stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preference, sinking fund terms, and number of shares constituting any series or the designation of any series. The issuance of Preferred Stock could have the effect of restricting dividends on the Common Stock, diluting the voting power of the Common Stock, impairing the liquidation rights of the Common Stock, or delaying or preventing a change in control. The ability of the Board to issue Preferred Stock without stockholder approval could have the effect of delaying, deferring or preventing a change in control of the Company or the removal of the Company’s existing management. No shares of Preferred Stock are outstanding as of January 31, 2020.

Anti-Takeover Effects of Provisions of the Certificate of Incorporation, Bylaws and Delaware Law

As the Company’s controlling stockholder, Dell Technologies, Inc. (“Dell”) has the ability to prevent a change in control of the Company. Provisions in the Certificate of Incorporation and the Bylaws may also have the effect of delaying or preventing a change in control or changes in the Company’s management. These provisions include the following:

- the division of the Board 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 to elect a director to fill a vacancy created by an expansion of the Board;
- following a distribution by Dell to its stockholders under Section 355 of the Internal Revenue Code of 1986, the restriction that a beneficial owner of 10% or more of the 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 the Board 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 or for proposing matters that can be acted upon at a stockholders' meeting;
- the ability of the Board to issue, without stockholder approval, up to 100,000,000 shares of Preferred Stock with terms set by the Board, which rights could be senior to those of Common Stock, as described above; and
- in the event that Dell or its successor-in-interest no longer owns shares of 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.

The Company is a Delaware corporation and has elected to be subject to the provisions of subject to the provisions of Section 203 of the DGCL. Under Section 203, the Company would generally be prohibited from engaging in any business combination with any interested stockholder for a period of three years following the time that this stockholder became an interested stockholder unless:

- prior to this time, the Board approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the Company outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and also officers, and by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time, the business combination is approved by the Board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- any merger or consolidation involving the Company and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the Company involving the interested stockholder;

- any transaction that results in the issuance or transfer by the Company of any stock of the Company to the interested stockholder, subject to limited exceptions;
- any transaction involving the Company that has the effect of increasing the proportionate share of the stock of any class or series of the Company beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the Company.

In general, Section 203 defines an interested stockholder as a person who, together with affiliates and associates, owns (or within three years, did own) beneficially 5% or more of the outstanding voting stock of the Company. Section 203 could prohibit or delay mergers or other takeover or change in control attempts with respect to the Company and, accordingly, may discourage attempts to acquire the Company.

In addition, Article VI of our Amended and Restated Certificate of Incorporation prescribes that the affirmative vote or written consent of the holders of a majority of the outstanding shares of the Class B common stock will be required to:

- adopt or implement any stockholder rights plan or similar takeover defense measure;
- consolidate or merge with or into any Person (as defined in the Amended and Restated Certificate of Incorporation);
- permit any subsidiary of the Company to consolidate or merge with or into any Person, except as set forth in the Amended and Restated Certificate of Incorporation;
- issue any stock or any stock equivalents, except as set forth in the Amended and Restated Certificate of Incorporation;
- dissolve, liquidate or wind up the Company; and
- undertake certain other actions.

VMware, Inc.
Non-Qualified Deferred Compensation Plan
Adoption Agreement
(as Amended and Restated effective January 1, 2020)

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Adoption Agreement

1.01 Preamble

By the execution of this Adoption Agreement the Plan Sponsor hereby [complete (a) or (b)]

- (a) ☐ adopts a new plan as of [month, day, year]
- (b) ☒ amends and restates its existing plan as of January 1, 2020 which is the Amendment Restatement Date. Except as otherwise provided in Appendix A, all amounts deferred under the Plan prior to the Amendment Restatement Date shall be governed by the terms of the Plan as in effect on the day before the Amendment Restatement Date.

Original Effective Date: January 1, 2014

Pre-409A Grandfathering: ☐ Yes ☒ No

1.02 Plan

Plan Name: VMware, Inc. Non-Qualified Deferred Compensation Plan

Plan Year: Year ending December 31

1.03 Plan Sponsor

Name: VMware, Inc.

Mailing Address: 3401 Hillview Avenue, Palo Alto, CA 94034

Physical Address: 900 Arastradero Road, Building C, Palo Alto, CA 94034

Phone #: 650-427-4361

EIN #: 94-3292913

Fiscal Year: Year ending December 31

Is stock of the Plan Sponsor, any Employer or any Related Employer publicly traded on an established securities market? ☒
Yes ☐ No

1.04 Employer

The following entities have been authorized by the Plan Sponsor to participate in and have adopted the Plan [insert “Not Applicable” if none have been authorized]:

Entity	Publicly Traded on Est. Securities Market	
	Yes	No
Pivotal Software, Inc. (EIN 94-3094578)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

1.05 Administrator

The Plan Sponsor has designated the following party or parties to be responsible for the administration of the Plan:

Name: Persons delegated authority by the Compensation & Corporate Governance Committee

Address:

Note: The Administrator is the person or persons designated by the Plan Sponsor to be responsible for the administration of the Plan. Neither Fidelity Employer Services Company nor any other Fidelity affiliate can be the Administrator.

1.06 Key Employee Determination Dates

The Employer has designated December 31 as the Identification Date for purposes of determining Key Employees.

In the absence of a designation, the Identification Date is December 31.

The Employer has designated April 1 as the effective date for purposes of applying the six month delay in distributions to Key Employees.

In the absence of a designation, the effective date is the first day of the fourth month following the Identification Date.

2.01 Participation

- (a) ☒ Employees [complete (i), (ii) or (iii)]
 - (i) ☒ Eligible Employees are selected by the Employer.
 - (ii) ☐ Eligible Employees are those employees of the Employer who satisfy the following criteria:

- (iii) ☐ Employees are not eligible to participate.
- (b) ☒ Directors [complete (i), (ii) or (iii)]
 - (i) ☐ All Directors are eligible to participate.
 - (ii) ☐ Only Directors selected by the Employer are eligible to participate.
 - (iii) ☒ Directors are not eligible to participate.

3.01 Compensation

For purposes of determining Participant contributions under Article 4 and Employer contributions under Article 5, Compensation shall be defined in the following manner [complete (a) or (b) and select (c) and/or (d), if applicable]:

(a) ☒ Compensation is defined as:

Base Salary, Employee Bonus Plan, Executive Bonus Plan and Commissions

(b) ☐ Compensation as defined in [insert name of qualified plan] without regard to the limitation in Section 401(a)(17) of the Code for such Plan Year.

(c) ☐ Director Compensation is defined as:

(d) ☐ Compensation shall, for all Plan purposes, be limited to \$_____.

(e) ☐ Not Applicable.

3.02 Bonuses

Compensation, as defined in Section 3.01 of the Adoption Agreement, includes the following type of bonuses that will be the subject of a separate deferral election:

<u>Type</u>	[Will be treated as] _	
	<u>Performance Based Compensation</u>	
	Yes	No
Employee Bonus Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Executive Bonus Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

☐ Not Applicable.

4.01 Participant Contributions

If Participant contributions are permitted, complete (a), (b), and (c). Otherwise complete (d).

(a) Amount of Deferrals

A Participant may elect within the period specified in Section 4.01(b) of the Adoption Agreement to defer the following amounts of remuneration. For each type of remuneration listed, complete “dollar amount” and/or “percentage amount”.

(i) Compensation other than Bonuses [do not complete if you complete (iii)]

Type of Remuneration	Dollar Amount		% Amount		Increment
	Min	Max	Min	Max	
Base Salary			5%	75%	1%
Commissions			5%	100%	1%
			%	%	%

Note: The increment is required to determine the permissible deferral amounts. For example, a minimum of 0% and maximum of 20% with a 5% increment would allow an individual to defer 0%, 5%, 10%, 15% or 20%.

(ii) Bonuses [do not complete if you complete (iii)]

Type of Bonus	Dollar Amount		% Amount		Increment
	Min	Max	Min	Max	
Employee Bonus Plan			5%	100%	1%
Executive Bonus Plan			5%	100%	1%
			%	%	%

(iii) Compensation [do not complete if you completed (i) and (ii)]

Dollar Amount		% Amount		Increment
Min	Max	Min	Max	
		%	%	%

(iv) Director Compensation

Type of Compensation	Dollar Amount		% Amount		Increment
	Min	Max	Min	Max	
Annual Retainer			%	%	%
Meeting Fees Other:			%	%	%
Other:			%	%	%
Other:			%	%	%

(b) Election Period

(i) Performance Based Compensation

A special election period

☐ Does

☒ Does Not

apply to each eligible type of performance based compensation referenced in Section 3.02 of the Adoption Agreement.

The special election period, if applicable, will be determined by the Employer.

(ii) Newly Eligible Participants

An employee who is classified or designated as an Eligible Employee during a Plan Year

☒ May

☐ May Not

elect to defer Compensation earned during the remainder of the Plan Year by completing a deferral agreement within the 30 day period beginning on the date he is eligible to participate in the Plan.

The special election period, if applicable, will be determined by the Employer.

(c) Revocation of Deferral Agreement

A Participant's deferral agreement

☒ Will

☐ Will Not

be cancelled for the remainder of any Plan Year during which he receives a hardship distribution of elective deferrals from a qualified cash or deferred arrangement maintained by the Employer to the extent necessary to satisfy the requirements of Reg. Sec. 1.401(k)-1(d)(3). If cancellation occurs, the Participant may resume participation in accordance with Article 4 of the Plan.

(d) No Participant Contributions

☐ Participant contributions are not permitted under the Plan.

5.01 *Employer Contributions*

If Employer contributions are permitted, complete (a) and/or (b). Otherwise complete (c).

(a) **Matching Contributions**

(i) Amount

For each Plan Year, the Employer shall make a matching contribution on behalf of each Participant who defers Compensation for the Plan Year and satisfies the requirements of Section 5.01(a)(ii) of the Adoption Agreement equal to [complete the ones that are applicable]:

- (A) ☐ insert percentage% of the Compensation the Participant has elected to defer for the Plan Year
- (B) ☒ An amount determined by the Employer in its sole discretion
- (C) ☐ Matching contributions for each Participant shall be limited to \$_____ and/or insert percentage% of Compensation
- (D) ☐ Other:

- (E) ☐ Not Applicable [Proceed to Section 5.01(b)]

(ii) Eligibility for matching contribution

A Participant who defers Compensation for the Plan Year shall receive an allocation of matching contributions determined in accordance with Section 5.01(a)(i) provided he satisfies the following requirements [complete the ones that are applicable]:

- (A) ☐ Describe requirements:

- (B) ☒ Is selected by the Employer in its sole discretion to receive an allocation of matching contributions
-

(C) ☐ No requirements

(iii) Time of Allocation

Matching contributions, if made, shall be treated as allocated [select one]:

(A) ☐ As of the last day of the Plan Year

(B) ☒ At such times as the Employer shall determine in its sole discretion

(C) ☐ At the time the Compensation on account of which the matching contribution is being made would otherwise have been paid to the Participant

(D) ☐ Other:

(b) Other Contributions

(i) Amount

The Employer shall make a contribution on behalf of each Participant who satisfies the requirements of Section 5.01(b) (ii) equal to [complete the ones that are applicable]:

(A) ☐ An amount equal to [insert percentage]% of the Participant's Compensation

(B) ☒ An amount determined by the Employer in its sole discretion

(C) ☐ Contributions for each Participant shall be limited to \$_____

(D) ☐ Other:

(E) ☐ Not Applicable [Proceed to Section 6.01]

(ii) Eligibility for Other Contribution

A Participant shall receive an allocation of other Employer contributions determined in accordance with Section 5.01(b) (i) for the Plan Year if he satisfies the following requirements [complete the one that is applicable]:

(A) ☐ Describe requirements:

(B) ☒ Is selected by the Employer in its sole discretion to receive an allocation of other Employer contributions

(C) ☐ No requirements

(iii) Time of Allocation

Employer contributions, if made, shall be treated as allocated [select one]:

(A) ☐ As of the last day of the Plan Year

(B) ☒ At such times or times as the Employer shall determine in its sole discretion

(C) ☐ Other:

(c) **No Employer Contributions**

☐ Employer contributions are not permitted under the Plan.

6.01 Distributions

The timing and form of payment of distributions made from the Participant's vested Account shall be made in accordance with the elections made in this Section 6.01 of the Adoption Agreement except when Section 9.6 of the Plan requires a six month delay for certain distributions to Key Employees of publicly traded companies.

(a) Timing of Distributions

(i) All distributions shall commence in accordance with the following [choose one]:

- (A) ☐ As soon as administratively feasible following the distribution event but in no event later than the time prescribed by Treas. Reg. Sec. 1.409A-3(d).
- (B) ☐ Monthly on specified day [insert day]
- (C) ☐ Annually on specified month and day [insert month and day]
- (D) ☒ Calendar quarter on specified month and day 1st business day of 1st month of quarter

(ii) The timing of distributions as determined in Section 6.01(a)(i) shall be modified by the adoption of:

- (A) ☒ Event Delay – Distribution events other than those based on Specified Date or Specified Age will be treated as not having occurred for six (6) months
- (B) ☐ Hold Until Next Year – Distribution events other than those based on Specified Date or Specified Age will be treated as not having occurred for twelve months from the date of the event if payment pursuant to Section 6.01(a)(i) will thereby occur in the next calendar year or on the first payment date in the next calendar year in all other cases
- (C) ☐ Immediate Processing – The timing method selected by the Plan Sponsor under Section 6.01(a)(i) shall be overridden for the following distribution events [insert events]:

- (D) ☐ Not applicable
-

(b) Distribution Events

Participants may elect the following payment events and the associated form or forms of payment. If multiple events are selected, the earliest to occur will trigger payment. For installments, insert the range of available periods (e.g., 5-15) or insert the periods available (e.g., 5, 7, 9).

	<u>Lump Sum</u>	<u>Installments</u>
(i) <input checked="" type="checkbox"/> Specified Date	<input checked="" type="checkbox"/>	<u>5, 11 or 15</u> years
(ii) <input type="checkbox"/> Specified Age	<input type="checkbox"/>	_____ years
(iii) <input checked="" type="checkbox"/> Separation from Service	<input checked="" type="checkbox"/>	<u>5, 11 or 15</u> years
(iv) <input type="checkbox"/> Separation from Service plus 6 months	<input type="checkbox"/>	_____ years
(v) <input type="checkbox"/> Separation from Service plus _____ months [not to exceed _____ months]	<input type="checkbox"/>	_____ years
(vi) <input type="checkbox"/> Retirement	<input type="checkbox"/>	_____ years
(vii) <input type="checkbox"/> Retirement plus 6 months	<input type="checkbox"/>	_____ years
(viii) <input type="checkbox"/> Retirement plus _____ months	<input type="checkbox"/>	_____ years
(ix) <input type="checkbox"/> Disability	<input type="checkbox"/>	_____ years
(x) <input type="checkbox"/> Death	<input type="checkbox"/>	_____ years
(xi) <input type="checkbox"/> Change in Control	<input type="checkbox"/>	_____ years

The minimum deferral period for Specified Date or Specified Age event shall be three (3) years.

Installments may be paid [select each that applies]

- ☐ Monthly
- ☐ Quarterly
- ☒ Annually

(c) Specified Date and Specified Age elections may not extend beyond age Not applicable.

(d) Payment Election Override

Payment of the remaining vested balance of the Participant's Account will automatically occur at the time specified in Section 6.01(a) of the Adoption Agreement in the form indicated upon the earliest to occur of the following events [check each event that applies and for each event include only a single form of payment]:

<u>Events</u>	<u>Form of Payment</u>	
	<u>Lump Sum</u>	<u>Installments</u>
<input type="checkbox"/> Separation from Service	<input type="checkbox"/>	_____
<input type="checkbox"/> Separation from Service before Retirement	<input type="checkbox"/>	_____
<input checked="" type="checkbox"/> Death	<input checked="" type="checkbox"/>	_____
<input checked="" type="checkbox"/> Disability	<input checked="" type="checkbox"/>	_____
<input type="checkbox"/> Not Applicable	<input type="checkbox"/>	_____

(e) Involuntary Cashouts

- ☒ If the Participant's vested Account at the time of his Separation from Service does not exceed \$50,000, distribution of the vested Account shall automatically be made in the form of a single lump sum in accordance with Section 9.5 of the Plan.
- ☐ There are no involuntary cashouts.

(f) Retirement

- ☐ Retirement shall be defined as a Separation from Service that occurs on or after the Participant [insert description of requirements]:

- ☒ No special definition of Retirement applies.

(g) Distribution Election Change

A Participant

☒ Shall

☐ Shall Not

be permitted to modify a scheduled distribution date and/or payment option in accordance with Section 9.2 of the Plan.

A Participant shall generally be permitted to elect such modification two (2) number of times.

Administratively, allowable distribution events will be modified to reflect all options necessary to fulfill the distribution change election provision.

(h) Frequency of Elections

The Plan Sponsor

☒ Has

☐ Has Not

elected to permit annual elections of a time and form of payment for amounts deferred under the Plan. If a single election of a time and/or form of payment is required, the Participant will make such election at the time he first completes a deferral agreement which, in all cases, will be no later than the time required by Reg. Sec. 1.409A-2.

7.01 Vesting

(a) Matching Contributions

The Participant’s vested interest in the amount credited to his Account attributable to matching contributions shall be based on the following schedule:

<input type="checkbox"/>	<u>Years of Service</u>	<u>Vesting %</u>	
	0	<u> </u> %	[insert “100” if there is immediate vesting]
	1	<u> </u> %	
	2	<u> </u> %	
	3	<u> </u> %	
	4	<u> </u> %	
	5	<u> </u> %	
	6	<u> </u> %	
	7	<u> </u> %	
	8	<u> </u> %	
	9	<u> </u> %	

☒ Other:

As determined by the Administrator

☐ Class year vesting applies:

☐ Not applicable.

(b) Other Employer Contributions

The Participant's vested interest in the amount credited to his Account attributable to Employer contributions other than matching contributions shall be based on the following schedule:

<input type="checkbox"/>	<u>Years of Service</u>	<u>Vesting %</u>	
	0	<u> </u> %	[insert "100" if there is immediate vesting]
	1	<u> </u> %	
	2	<u> </u> %	
	3	<u> </u> %	
	4	<u> </u> %	
	5	<u> </u> %	
	6	<u> </u> %	
	7	<u> </u> %	
	8	<u> </u> %	
	9	<u> </u> %	

☒ Other:

As determined by the Administrator

☐ Class year vesting applies:

☐ Not applicable.

(c) Acceleration of Vesting

The Participant's vested interest in his Account will automatically be 100% upon the occurrence of the following events [select the ones that are applicable]:

- (i) ☐ Death.
- (ii) ☐ Disability.
- (iii) ☐ Change in Control.
- (iv) ☐ Eligibility for Retirement.
- (v) ☒ Other:

As determined by the Administrator

- (vi) ☐ Not applicable.

(d) Years of Service

- (i) A Participant's Years of Service shall include all service performed for the Employer and

☐ Shall

☒ Shall Not

include service performed for the Related Employer.

(ii) Years of Service shall also include service performed for the following entities:

(iii) Years of Service shall be determined in accordance with [select one]:

- (A) ☐ The elapsed time method in Treas. Reg. Sec. 1.410(a)-7
- (B) ☐ The general method in DOL Reg. Sec. 2530.200b-1 through b-4
- (C) ☐ Participant's Years of Service credited under:

[insert name of plan]

(D) ☒ Other:

As determined by the Administrator

(iv) ☐ Not applicable.

8.01 Unforeseeable Emergency

- (a) A withdrawal due to an Unforeseeable Emergency as defined in Section 2.24:

☒ Will

☐ Will Not [if Unforeseeable Emergency withdrawals are not permitted, proceed to Section 9.01]

be allowed.

- (b) Upon a withdrawal due to an Unforeseeable Emergency, a Participant's deferral election for the remainder of the Plan Year:

☒ Will

☐ Will Not

be cancelled. If cancellation occurs, the Participant may resume participation in accordance with Article 4 of the Plan.

9.01 *Investment Decisions*

Investment decisions regarding the hypothetical amounts credited to a Participant's Account shall be made by [select one]:

- (a) ☒ The Participant or his Beneficiary
 - (b) ☐ The Employer
-

10.01 Trust

The Employer [select one]:

☒ Does

☐ Does Not

intend to establish a rabbi trust as provided in Article 11 of the Plan.

11.01 Termination Upon Change In Control

The Plan Sponsor

☒ Reserves

☐ Does Not Reserves

the right to terminate the Plan and distribute all vested amounts credited to Participant Accounts upon a Change in Control as described in Section 9.7.

11.02 Automatic Distribution Upon Change In Control

Distribution of the remaining vested balance of each Participant's Account

☐ Shall

☒ Shall Not

automatically be paid as a lump sum payment upon the occurrence of a Change in Control as provided in Section 9.7.

11.03 Change In Control

A Change in Control for Plan purposes includes the following [select each definition that applies]:

(a) ☒ A change in the ownership of the Employer as described in Section 9.7(c) of the Plan.

(b) ☒ A change in the effective control of the Employer as described in Section 9.7(d) of the Plan.

(c) ☒ A change in the ownership of a substantial portion of the assets of the Employer as described in Section 9.7(e) of the Plan.

(d) ☐ Not Applicable.

12.01 Governing State Law

The laws of California shall apply in the administration of the Plan to the extent not preempted by ERISA.

Execution Page

The Plan Sponsor has caused this Adoption Agreement to be executed this 14th day of January, 2020.

Plan Sponsor: VMware, Inc.

By: /s/ Shannon Daly

Title: Senior Director, Global Benefits

Appendix A

Special Effective Dates

Not Applicable

SUBSIDIARIES OF VMWARE, INC.

SUBSIDIARIES	STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION
3401 Hillview LLC	Delaware
A.W.S. Holding, LLC	Delaware
AetherPal (INDIA) Private Limited	India
AetherPal LLC	Delaware
AirWatch LLC	Delaware
Arkinnet Software Private Limited	India
Avi Networks B.V.	Netherlands
Avi Networks Germany GmbH	Germany
Avi Networks India Private Limited	India
Avi Networks International, Inc.	Delaware
Avi Networks Middle East, FZ-LLC	Dubai
Avi Networks UK Limited	United Kingdom
Avi Networks, LLC	Delaware
Bitfusion.io Inc.	Delaware
BitRock, Inc.	Delaware
BitRock, S.L.	Spain
Carbon Black Australia Pty. Ltd.	Australia
Carbon Black Germany GmbH	Germany
Carbon Black Malaysia SDN. BHD	Malaysia
Carbon Black U.K. Limited	United Kingdom
Carbon Black, LLC	Delaware
CloudHealth Technologies Australia Pty. Ltd	Australia
CloudHealth Technologies, LLC	Delaware
GoPivotal (UK) Limited	United Kingdom
GoPivotal Netherlands B.V.	Netherlands
GoPivotal Singapore Pte. Limited	Singapore
GoPivotal Software India Private Limited	India
GPVTL Canada Inc.	Canada
Heptio LLC	Delaware
Nicira, Inc.	Delaware
Nyansa, Inc.	Delaware
Pivotal Brasil Consultoria em Tecnologia da Informacao Ltda.	Brazil
Pivotal Group 1 Limited	Bermuda
Pivotal Group 2	Bermuda
Pivotal Japan K.K.	Japan
Pivotal Labs Sydney Pty Ltd	Australia
Pivotal Software Australia Pty Limited	Australia
Pivotal Software Deutschland GmbH	Germany
Pivotal Software France S.A.S.	France
Pivotal Software International Limited	Ireland
Pivotal Software International Holdings	Ireland
Pivotal Software Korea Ltd.	Korea
Pivotal Software, Inc.	Delaware
Pivotal Technology (Beijing) Co., Ltd.	China
PT VMware Software Indonesia	Indonesia
Taiwan VMware Information Technology LLC	Taiwan
Uhana, LLC	Delaware

V M WARE EGYPT		Egypt
VeloCloud Networks Private Limited		India
Velocloud Networks, LLC		Delaware
Veriflow Systems, Inc.		Delaware
VMware Argentina S.R.L.		Argentina
VMware Australia Pty Ltd		Australia
VMware Belgium		Belgium
VMware Bermuda Unlimited		Ireland
VMware Bulgaria EOOD		Bulgaria
VMware Canada ULC		Canada
VMware Chile SpA		Chile
VMware Colombia SAS		Colombia
VMware Costa Rica Ltda.		Costa Rica
VMware Denmark ApS		Denmark
VMware Eastern Europe		Armenia
VMware France SAS		France
VMware Global, Inc.		Delaware
VMware Hong Kong Limited		Hong Kong
VMware Information Technology (China) Co. Ltd		China
VMware International Marketing Limited		Ireland
VMware International Spain, S.L.		Spain
VMware International Unlimited		Ireland
VMware Israel Ltd.		Israel
VMware Italy S.r.l.		Italy
VMware Korea Co., Ltd.		South Korea
VMware Malaysia SDN. BHD.		Malaysia
VMware Marketing Austria GmbH		Austria
VMware Mexico S. de R.L. de C.V.		Mexico
VMware Middle East FZ-LLC		Dubai
VMware Netherlands B.V.		Netherlands
VMware Norway AS		Norway
VMware NZ Company		New Zealand
VMware Poland sp. Z.o.o.		Poland
VMware Rus LLC		Russia
VMware Saudi Limited		Saudi Arabia
VMware Singapore Pte. Ltd.		Singapore
VMware Software e Serviços Brasil Ltda.		Brazil
VMware Software India Private Limited		India
VMware South Africa (Pty) Ltd		South Africa
VMware Spain, S.L.		Spain
VMware Sweden AB		Sweden
VMware Switzerland GmbH		Switzerland
VMware (Thailand) Co., Ltd.		Thailand
VMware Turkey Software Solutions and Services Company Limited		Turkey
VMware UK Limited		United Kingdom
VMware, K.K.		Japan

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-235401, 333-227273, 333-218640, 333-206114, 333-194148, 333-189491, 333-179680, 333-159747 and 333-145402) and Form S-3 (No. 333-219940) of VMware, Inc. of our report dated March 26, 2020 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Jose, California

March 26, 2020

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Patrick Gelsinger, certify that:

1. I have reviewed this annual report on Form 10-K of VMware, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 26, 2020

By: /s/ Patrick Gelsinger

Patrick Gelsinger
Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Zane Rowe, certify that:

1. I have reviewed this annual report on Form 10-K of VMware, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 26, 2020

By: /s/ Zane Rowe

Zane Rowe
Chief Financial Officer and Executive Vice President
(Principal Financial Officer)

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Patrick Gelsinger, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Annual Report of VMware, Inc. on Form 10-K for the fiscal year ended January 31, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of VMware, Inc.

Date: March 26, 2020

By: /s/ Patrick Gelsinger

Patrick Gelsinger
Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Zane Rowe, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Annual Report of VMware, Inc. on Form 10-K for the fiscal year ended January 31, 2020 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of VMware, Inc.

Date: March 26, 2020

By: /s/ Zane Rowe

Zane Rowe
Chief Financial Officer and Executive Vice President
(Principal Financial Officer)