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 29, 2021

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

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

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

Title of each class	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	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

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

As of July 31, 2020, 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 July 31, 2020) was approximately $11.4 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 July 31, 2020 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 16, 2021, the number of shares of common stock, par value $0.01 per share, of the registrant outstanding was 419,232,986, of which 112,011,150 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 2021. The Proxy Statement will be filed by the registrant with the Securities and Exchange Commission no later than 120 days after the end of the registrant's fiscal year ended January 29, 2021.

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VMware, vSphere, VMware vSAN, NSX, vRealize, Tanzu, vCloud, vCenter, Workspace ONE, Horizon, Pivotal, Bitnami, Heptio, Wavefront, Carbon Black, VMworld, vForum, Connect, SpringOne, vCenter Server, vMotion, AirWatch, ESX, VeloCloud, Nyansa, CloudHealth, SaltStack, Datrium, Lastline, Avi Networks, and AetherPal 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, but are not limited to, 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 impact of the COVID-19 pandemic on the global economy as well as our business operations, financial performance, results of operations and stock price; future plans with respect to Dell’s ownership interest in us, including any possible spin-off of its ownership to Dell stockholders and any potential related transactions, such as a special cash dividend to be paid by us and the sources of funding for any such special cash dividend; 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.

Risk Factor Summary

VMware is subject to various risks as set forth in Part I, Item 1A of this Annual Report on Form 10-K, including:

Operation of Business and Strategic Risks

- A significant decrease in demand for our server virtualization products would adversely affect our operating results.
- 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.
- Our success depends upon our ability to adapt our business and pricing models to a subscription and SaaS model appropriately.
- We face intense competition.
- Our success depends increasingly on customer acceptance of our newer products and services.
- Competition for our highly skilled employees is intense and costly.
- The loss of key management personnel could harm our business.
- Our current research and development efforts may not produce significant revenue.
- Acquisitions and divestitures could materially harm our business and operating results.
- Disruptions to our distribution channels, including our various routes to market through Dell, could harm our business.
- The evolution of our business requires more complex go-to-market strategies.
- We may not be able to respond to rapid technological changes with new solutions and services offerings.
- We operate a global business that exposes us to additional risks.
- Our success depends on the interoperability of our products and services with those of other companies.
- Failure to effectively manage our product and service lifecycles could harm our business.

Financial Risks

- Our operating results may fluctuate significantly.
- Adverse economic conditions may harm our business.
- We have outstanding indebtedness and may incur other debt in the future, which may adversely affect our financial condition and future financial results.
- Our operating results may be adversely impacted by exposure to additional tax liabilities and higher than expected tax rates.

Security Risks

- Cybersecurity breaches of our systems or the systems of our vendors, partners and suppliers could materially harm our business.
- Our products and services are highly technical and may contain or be subject to other suppliers' errors, defects or security vulnerabilities.
- Problems with our information systems could interfere with our business and could adversely impact our operations.

Legal and Compliance Risks

- We are involved in litigation, investigations and regulatory inquiries and proceedings that could negatively affect us.
- We may not be able to adequately protect our intellectual property rights.
- Actual or perceived non-compliance with privacy and data protection laws, regulations and standards could adversely impact our business.
- Our use of "open source" software in our products could negatively affect our ability to sell our products and subject us to litigation.
- If we fail to comply with government contracting regulations, our business could be adversely affected.

Risks Related to Our Relationship with Dell

- Our relationship with Dell may adversely impact our business and stock price.
- Holders of our Class A common stock have limited ability to influence matters requiring stockholder approval.
- Dell has the ability to prevent us from taking actions that might be in our best interest.
- Dell has the ability to prevent a change-in-control transaction and may sell control of VMware without benefiting other stockholders.
- 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.
- We engage in related persons transactions with Dell that may divert our resources, create opportunity costs and prove to be unsuccessful.
- Our business and Dell's businesses overlap, and Dell may compete with us.
- Dell's competition in certain markets may affect our ability to build and maintain partnerships.
- We could be held liable for the tax liabilities of other members of Dell's consolidated tax group, and our tax liabilities may increase, fluctuate more widely and be less predictable.
- We have limited ability to resolve favorably any disputes that arise between us and Dell.
- Some of our directors have potential conflicts of interest with Dell.
- 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's ability to control our board of directors may make it 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.

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

General Risks

- We are exposed to foreign exchange risks.
- If our goodwill or amortizable intangible assets become impaired, we may be required to record a significant charge to earnings.
- Securities or industry analysts may change their recommendations regarding our stock adversely.
- Changes in accounting principles and guidance could result in unfavorable accounting charges or effects.
- Natural disasters, catastrophic events or geo-political conditions could disrupt our business.
- Climate change may have a long-term negative impact on our business.

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 businesses through a digital transformation. To take on these challenges, we are working with customers in the areas of hybrid and multi-cloud, virtual cloud networking, digital workspaces, modern applications and intrinsic security. Our software provides a flexible digital foundation to enable customers in their digital transformation.

Our 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. We enable 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. In December 2019, we acquired Pivotal Software, Inc., a subsidiary of Dell. We are considered a “controlled company” under the rules of the New York Stock Exchange (“NYSE”). As of January 29, 2021, Dell controlled approximately 80.6% of our outstanding common stock, including 31 million shares of our Class A common stock and all of our Class B common stock.

We refer to our fiscal years ended January 28, 2022, January 29, 2021 and January 31, 2020 as “fiscal 2022,” “fiscal 2021” and “fiscal 2020,” respectively.

Total revenue in fiscal 2021 increased 9% to $11.8 billion. Total revenue is comprised of license revenue of $3.0 billion, subscription and SaaS revenue of $2.6 billion and services revenue of $6.1 billion. As customers shift from our on-premises offerings to our cloud-based offerings, license revenue may be lower and subject to greater fluctuation in the future, driven by a higher percentage of cloud-based offerings being sold.

Our corporate headquarters are located at 3401 Hillview Avenue, Palo Alto, California, and we have 127 offices worldwide.

Products and Technology Solutions

Our multi-cloud, virtual cloud networking, digital workspace, application modernization and intrinsic security solutions form a flexible, consistent digital foundation on which to build, run, manage, connect and protect applications, anywhere.

Multi-Cloud

The VMware Multi-Cloud Solution provides infrastructure products and services to customers to create a common operating environment based on VMware Cloud Foundation that extends from on-premises data centers to cloud to edge.

VMware vSphere (“vSphere”), VMware vSAN (“ vSAN”), VMware NSX (“NSX”) and vRealize Cloud Management are foundational products that provide solutions to our customers. VMware Cloud Foundation (“VCF”) is a hybrid cloud platform that combines our vSphere, vSAN and NSX offerings with vRealize Cloud Management into an integrated stack that delivers developer-ready cloud infrastructure for private and public clouds. VMware Cloud Foundation software can be consumed as a software-only solution on customers’ choice of hardware, as an integrated system pre-installed at the factory such as Dell EMC VxRail (“VxRail”) or as a service on leading public clouds including Amazon Web Services (“AWS”), Azure, Google Cloud, IBM Cloud and Oracle.

vSphere, our flagship data center infrastructure offering, utilizes our hypervisor software and provides the fundamental compute layer for customer environments. A “hypervisor” is a layer of software that resides between the operating system and system hardware to enable compute virtualization. We continue to build on vSphere with VMware Tanzu solutions, which provides a simple way for vSphere customers globally to get started with Kubernetes and modernize their workloads running on vSphere.

vSAN and VxRail products offer cost-effective, holistic data storage and protection options to all applications running on vSphere. These products are applicable to hyperconverged infrastructure as well as traditional infrastructure solutions and enable customers to deploy on a broad range of hardware solutions. Our vSAN offering creates simple, shared storage designed for virtual machines. VxRail is a hyperconverged infrastructure solution comprised of a fully integrated and pre-configured Dell EMC appliance powered by vSAN and vSphere software.

vRealize Cloud Management solutions–available as a service or on-premises offerings–help customers manage hybrid and multi-cloud environments running in both virtual machines and containers. VMware cloud management offerings optimize cloud usage and costs, automate the deployment, management and migration of applications and data, improve cloud security and compliance, and monitor application and cloud infrastructure. Key products in the VMware cloud management product portfolio include CloudHealth by VMware, vRealize Automation, vRealize Operations, VMware vRealize Suite and VMware vCloud Suite. VMware vRealize Cloud Universal, which was launched in fiscal 2021, is a single offering that combines VMware's SaaS and on-premises cloud management capabilities with the flexibility to move between the two as needed.

VCF extends to multi-cloud through VMware Cloud on AWS and VMware Cloud on Dell EMC offerings; hyperscaler public cloud services including Azure VMware Solution, Google Cloud VMware Engine, IBM Cloud for VMware Solutions and Oracle Cloud VMware Solution; and VMware Cloud Verified Providers.

- *VMware Cloud Providers*—a key component of our strategic priority to support multi-cloud, this global ecosystem of more than 4,300 cloud providers in over 120 countries that provide VMware-based cloud services. Our VMware Cloud Provider offerings are directed at traditional hosting partners, regional cloud providers and local and global managed service providers. VMware Cloud Providers give organizations the flexibility to choose between running applications in virtual machines, containers or both on their own private clouds inside their data center or on public clouds hosted and managed by a VMware cloud provider. IBM was our first cloud provider partner to offer VCF as a service, enabling their customers to leverage our technologies on IBM Cloud in their worldwide cloud data centers.
- *VMware Cloud on AWS*—an integrated hybrid cloud solution that extends on-premises vSphere environments to a VMware Software-Defined Data Center ("SDDC") running on Amazon Elastic Compute Cloud (Amazon EC2). Jointly engineered by VMware and AWS, this on-demand service enables IT teams to seamlessly extend, migrate and manage their cloud-based resources with familiar VMware tools, minimizing the difficulty of learning new skills or utilizing new tools. VMware Cloud on AWS integrates VMware's flagship compute, storage and network virtualization products (vSphere, vSAN and NSX), along with VMware vCenter management as well as robust disaster protection, and optimizes them to run on dedicated, elastic, Amazon EC2 bare-metal infrastructure that is fully integrated as part of the AWS Cloud. This service is delivered and supported by us and our partner community. This service is sold by VMware, AWS and their respective partner networks. It is available in 17 global AWS regions (including the AWS GovCloud US-West region).
- *VMware Cloud on Dell EMC*—a fully managed on-premises local cloud as a service offering providing customers with a hybrid cloud experience that combines the simplicity and agility of the public cloud with the security and control of on-premises infrastructure. VMware Cloud on Dell EMC addresses a broad set of customer use cases, including workloads that require local data processing, latency sensitive applications and regulated and sovereign workloads.

Virtual Cloud Network

We offer a complete portfolio of Layer 2-7 virtual networking and security solutions that deliver innovative software-based capabilities for switching, routing, firewalling, load balancing, service mesh and SD-WAN for enterprise and Telco/5G environments. These virtual cloud networking solutions enable customers to connect and protect all workloads running on bare metal, containers, and virtual machines, in data centers, multi-cloud environments and the network edge. Adoption of VMware virtual cloud networking solutions is being driven by customers that are replacing legacy, hardware-based network, and security infrastructure, such as firewalls and load balancers, and expensive dedicated wide-area network links.

Key products within networking solutions include:

- *VMware NSX*—our network virtualization platform that 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 VCF and VMware Cloud on AWS.
- *VMware Service-defined Firewall*—a distributed, scale-out internal firewall purpose-built to protect East-West traffic across multi-cloud environments spanning virtualized, containerized, and bare metal workloads. The Service-defined Firewall builds complete stateful Layer 7 security controls, including Advanced Threat Protection, into the infrastructure entirely in software, to eliminate blind spots and prevent lateral movement of threats while providing the control isolation of an agentless architecture. This enables security teams to mitigate risk, enable compliance and simplify the deployment model and operations of firewalling every workload, at a fraction of the cost.
- *VMware SD-WAN*—available as a service and as an on-premises software solution, delivers high-performance, reliable, and more secure access to cloud services, private data centers and SaaS-based enterprise applications for

remote workers and branch locations. 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.

- *VMware SASE*—network and security as a service with on-premises and endpoint software components, enables simple, agile, and more secure work from anywhere (office, home and mobile) connectivity. VMware SASE serves as a platform for deploying cloud-delivered network and security solutions and services (SD-WAN, Secure Access, Cloud Web Security, Edge Network Intelligence, etc.) that integrate with local edge compute to manage and control application traffic from users and Internet-connected devices.
- *VMware vRealize 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 (Avi Networks)*—provides consistent, multi-cloud load balancing, web application firewall and application insights across data centers and public clouds for virtual machines, container, and bare-metal workloads.

Digital Workspace

Our digital workspace offerings 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. These offerings are designed to deliver simplicity and choice for end users, while providing more security and control to corporate IT organizations for corporate applications, data and endpoints.

Our complete digital workspace solution is VMware Workspace ONE ("Workspace ONE"), the 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 brings together Workspace ONE Unified Endpoint Management ("UEM"), Workspace ONE Access ("Access") and VMware Horizon ("Horizon"), tied together with a common access control layer:

- *Workspace ONE UEM*—a solution built to manage and help secure endpoints across all major operating systems from a single management console that includes a suite of productivity applications, enabling customers to more effectively manage, secure and benefit from "bring your own device" programs.
- *Access*—a cloud service that enables customers to continuously track device state, user details and authentication context to determine user and device risk, allow or deny access and require multi-factor authentication or a remediation for access.
- *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 Workspace ONE UEM, Access and Horizon are also offered separately, together the complete Workspace ONE platform provides customers with a holistic digital workspace solution that combines identity, mobile management, employee productivity tools 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.

Workspace ONE Intelligent Hub empowers employees to more securely access corporate apps and resources from "hire to retire." IT can grant access to any application with single sign-on from a unified catalog, send informational and actionable notifications, and enable one-click contextual workflows with SaaS and backend applications on-the-go.

Application Modernization

VMware Tanzu, a family of products and services for modernizing applications and infrastructure, enables customers to deliver better software to production, continuously. The portfolio enables customers to build, run and manage modern applications on any cloud and simplifies the use of Kubernetes, an open source platform for managing containers, in a multi-cloud environment. The modern or cloud native applications allow businesses to bring new ideas to market faster and respond sooner to customer demands. VMware Tanzu uses cloud native patterns to build applications with microservices and APIs, and utilizing Kubernetes to simplify how these applications are deployed, observed and managed across on-premises, public clouds and edge. VMware Tanzu includes technologies acquired as part of our Pivotal, Bitnami, Heptio and Wavefront acquisitions.

Key offerings within application modernization include:

- *Tanzu Basic edition*—an offering that simplifies Kubernetes distribution that can be embedded in vSphere, allowing enterprises to embrace Kubernetes as part of their existing infrastructure.

- *Tanzu Standard edition*—an offering that simplifies the operation of Kubernetes distribution that can be deployed across on-premises, public clouds and edge with consistency, including an accompanying management plane to apply policy and security to all Kubernetes clusters, regardless of where they reside.
- *Tanzu Advanced edition*—a modular offering that enables customers to adopt development, security, and operations practices. Tanzu Advanced edition includes capabilities to accelerate how applications are built and packaged from curated and secured images, distributed and updated, and managed at scale in multi-cloud deployments. Those applications are deployed using Kubernetes, across environments, and are centrally managed, with built-in observability, consistency and control.
- *Tanzu Application Service*—a platform that allows enterprises to accelerate cloud-native software development, with managed access to native cloud services and portability to run across any clouds.
- *Tanzu Labs*—a service that provides guidance and support to help customers modernize existing apps or build new, modern apps with agile development practices.

Intrinsic Security

We make security intrinsic by leveraging the infrastructure to provide visibility for apps, users and devices, and combining that with leading threat detection and response capabilities to deliver a unique (and better) approach to security. The VMware Carbon Black platform is at the center of the VMware security portfolio. VMware Carbon Black Cloud is a SaaS-delivered cloud native endpoint and workload protection platform.

Key products include:

- *VMware Carbon Black Cloud Endpoint*—consolidates multiple endpoint security capabilities using one lightweight agent and cloud console to ease analysis of the most complex attacks and simplify the automation of detection and response workflows. VMware Carbon Black Cloud identifies attackers' changing behavior patterns, enabling customers to better detect, respond to and prevent emerging attacks. The endpoint protection platform includes next-generation antivirus, endpoint detection and response; managed detection, audit and remediation; and threat hunting and containment.
- *VMware Carbon Black Cloud Workload*—delivers advanced protection purpose-built for better securing modern workloads to reduce the attack surface and strengthen security postures. The solution combines prioritized vulnerability reporting and foundational workload hardening with industry-leading prevention, detection and response capabilities to protect workloads running in virtualized private and hybrid cloud environments. VMware Carbon Black Cloud Workload is also tightly integrated with vSphere to provide agentless security that alleviates installation and management overhead and consolidates the collection or telemetry for multiple workload security use cases.

Technology Alliances

We have more than 900 technology partners with whom we bring offerings to the marketplace and over 4,500 active cloud and managed service provider partners. We classify our partners as follows:

Independent Hardware Vendors ("IHVs")—we have established relationships with large system vendors, including Apple, Cisco, Fujitsu, Hitachi, HPE, IBM, Lenovo and Samsung 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 and managed service providers, including Microsoft, Google, Oracle, Lumen, Fujitsu, IBM, KPN, NTT, OVH, Rackspace, Softbank, Telefonica, Tieto and Virtustream supporting our multi-cloud strategy. These partners leverage our cloud technologies to host and deliver enterprise-class cloud services 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 more than 900 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 offerings—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 offerings, and our channel and cloud 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. Our channel network also includes partners that host our products and deliver them as a service to customers.

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 the full breadth of our subscription, SaaS, perpetual license, and services portfolio through discrete purchases to meet their immediate needs or through the adoption of enterprise agreements (“EAs”). Both of which provide access to a range of flexible purchasing programs. EAs are comprehensive offerings that may include license and subscription and SaaS, offered both directly by us and through certain channel partners that also provide for multi-year maintenance and support. 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 and users, distributors, resellers, system vendors, systems integrators, the media and analysts about the advantages of our innovative offerings. 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 trials, 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 conferences, VMworld, vForum, Connect and SpringOne are held globally. We also offer management presentations, seminars and webinars on our solutions and 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 2021. 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, Google, 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 29, 2021, the aggregate transaction price allocated to remaining performance obligations was $11.3 billion, of which approximately 55% is expected to be recognized as revenue over the next twelve months and the remainder thereafter.

As of January 31, 2020, the aggregate transaction price allocated to remaining performance obligations was $10.3 billion, of which approximately 54% was expected to be recognized as revenue during fiscal 2021, 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. Backlog consists of licenses, subscription and SaaS, and services. As of January 29, 2021, our total backlog was $93 million and our backlog related to licenses was $23 million. For our backlog related to licenses, we generally expect to deliver and recognize as revenue during the following quarter. Backlog totaling $18 million as of January 29, 2021 was excluded from the remaining performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs.

As of January 31, 2020, our total backlog was $18 million, and our backlog related to licenses was $5 million. 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.

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 2021, revenue from Dell, including purchases of products and services directly from us, as well as through our channel partners, accounted for 35% 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.

During fiscal 2021, another distributor, Arrow Electronics, Inc., who purchased software licenses and software support from us for resale to end-user customers directly or via resellers, accounted for 11% of our consolidated revenue. Our distribution agreements are typically terminable at will by either party upon 30 to 90 days' prior written notice to the other party, and neither party has any obligation to purchase or sell any products under the agreement.

Competition

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. New trends such as Secure Access Service Edge (SASE) and Zero Trust Network Access represent the coalescence of formerly distinct markets, such as identity management, secure web gateway, SD-WAN, network firewall, and cloud access security brokers. These trends may bring existing partners such as Zscaler and Okta, into a more competitive position with Carbon Black, VeloCloud and other distributed network security offerings from VMware. If we are unable to successfully adapt our product and service offerings to meet these opportunities and rapidly evolving trends, our operating results could be 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 29, 2021, over 4,100 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 also have trademarks registered 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.

Environmental, Social and Governance

At VMware, we believe technology can have a positive impact on society and the planet. In December 2020, we announced our 2030 Agenda, which represents our ESG Strategy focused on three business outcomes: Trust, Equity and Sustainability. Our 2030 Agenda is designed for all VMware stakeholders: stockholders, customers, employees, partners, suppliers, communities and the environment. To promote long-term stakeholder value creation, we created an ESG governance structure comprised of internal leadership and members of our executive staff to guide strategy, performance measurement and engage with our Board of Directors to review our ESG strategy.

Sustainability

We are committed to creating products and services that support our customers in reducing the environmental impact of their digital infrastructure. In addition to operating as a certified CarbonNeutral® company, in accordance with The CarbonNeutral Protocol, and procuring 100% renewable energy for our operations, in accordance with RE100's technical guidance, during fiscal 2021, we received validation of our science-based targets from the Science Based Targets Initiative organization ("SBTi") to address climate change. This year, we utilized concepts from the Financial Stability Board's ("FSB") Taskforce for Climate-Related Financial Disclosures ("TCFD") framework in our reporting processes. Additionally, we were recognized on CDP's Climate A List (formerly known as Carbon Disclosure Project) and added to the 2020 Dow Jones Sustainability Indices ("DJSI").

Human Capital

General Demographics

As of January 29, 2021, we employed approximately 34,000 employees located in 60 countries, approximately 15,000 of which work in the U.S.

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. As of January 29, 2021, less than 5% of our employees were contracted through Dell. None of our employees are represented by labor unions, and we consider current employee relations to be good.

COVID-19

In response to the COVID-19 outbreak, we acted with urgency to address the safety of our employees while continuing to support the business continuity needs of our customers and partners. We transitioned to a remote workforce model during the first quarter of fiscal 2021 and since then, have created flexible work and customer outreach experiences that have enabled our teams to remain connected with each other and with our customers while maintaining and enhancing productivity, operational excellence and innovation. We provided additional benefits to employees including a wellbeing allowance, pandemic time off, home equipment allowance and coverage of COVID-19 testing and treatment.

Future of Work

Going forward, we plan to continue building a dynamic, global workforce of the future that empowers our people to work from any location, consistent with business requirements, that accelerates their productivity to deliver innovative solutions and operational excellence for our customers worldwide. We believe our approach to employee flexibility will enable the Company to hire skilled and talented team members from many new locations globally and contribute to meeting our diversity, equity and inclusion goals. While planning for the initiative was well underway before the emergence of COVID-19, the pandemic accelerated our efforts. As our employees demonstrated throughout the pandemic, work location does not dictate success. The choice and flexibility that form the cornerstones of this new distributed workforce model mirror the choice and flexibility we provide to our customers when choosing their digital infrastructure.

Compensation and Benefits

We tailor our compensation programs including base pay strategy, variable compensation programs and health, wellbeing, and retirement programs to meet the needs of our employees. Equity awards are a key compensation component that enables us to recruit and retain top talent. The Compensation and Corporate Governance Committee of the VMware Board oversees the utilization of stock-based compensation to appropriately balance competitive needs against the dilutive impact on our stockholders. These components of total compensation are part of a broader framework of employee recognition, as well as our strategy to reinforce VMware's culture, and to attract, develop, and retain a talented and diverse workforce.

Wellbeing and Culture

The VMware culture is based on a set of shared values best expressed through the acronym EPIC2: Execution, Passion, Integrity, Customers, and Community. Each year, we honor extraordinary employees through our EPIC2 Achievement Awards program. Individuals are recognized for their ability to regularly go above and beyond the Company's high standards and for demonstrating a remarkable quality of character. Their dedication to projects, customers, and fellow team members represents great leadership—people who can inspire and motivate, especially during times of transformation and change.

We recognize that total wellbeing for our employees goes beyond physical fitness encompassing emotional, financial and community in defining overall health. In fiscal 2021, we expanded our wellbeing allowance to include all employees worldwide. During fiscal 2021, we were recognized by Forbes' 2020 JUST 100 List and Glassdoor's Best Places to Work.

Diversity, Equity and Inclusion (DEI)

DEI is a business priority at VMware. Our DEI initiative, VMinclusion, is a business-led effort to attract and engage the multinational, multicultural talent critical to our globally connected business. We are committed to creating a flexible, inclusive environment where everyone is respected and has equal opportunity to succeed. During fiscal 2021, all Senior Directors and above were assigned responsibility for achievement of company-wide DEI goals tied to bonus compensation. We carefully monitor the impact of our practices on the hiring and retention of talent from underrepresented communities, women, people with disabilities, veterans and those that identify as being part of LGBTQ communities. In fiscal 2021 we focused on our Black colleagues and their communities through executive level engagement to drive positive change that is systemic and long term.

We have been recognized for our achievements including Forbes 2020 The Best Employers for Diversity, Forbes 2020 The Best Employers for Women, and the 2020 Human Rights Campaign Foundation Best Places to Work for LGBTQ Equality.

As of the end of fiscal 2021, women represented 27.1% of our global employees and underrepresented minorities represented 10.4% of our U.S. employees.

We are committed to equitable compensation. We know that leveraging the power of human difference starts with equal pay for equal work. We continually analyze compensation globally, accounting for multiple factors that influence pay such as job, grade, tenure, time in job, geographic location and performance. Our most recent data analysis as of November 2020 shows that at VMware, women, in the aggregate, adjusting for the factors identified above, earn 99% of their male counterparts' target cash compensation globally and underrepresented minorities earn 100% of their white counterparts in the U.S.

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 16, 2021, are as follows:

Name	Age	Position(s)
Zane Rowe	50	Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President
Jean-Pierre Brulard	62	Executive Vice President, Worldwide Sales
Amy Fliegelman Olli	64	Executive Vice President, General Counsel and Secretary
Sanjay Poonen	51	Chief Operating Officer, Customer Operations
Rangarajan (Raghu) Raghuram	58	Chief Operating Officer, Products and Cloud Services

Zane Rowe has served as VMware's interim Chief Executive Officer since February 13, 2021, and also continues to serve as VMware's Chief Financial Officer and Executive Vice President, a position he has held since March 1, 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 has served as VMware's Executive Vice President, Worldwide Sales since 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 has served as VMware's Executive Vice President, General Counsel and Secretary since December 2020. She 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.

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 Technologies Inc. ("Dell") including uncertainty with respect to Dell's exploration of potential alternatives with respect to its ownership interest in us such as a spin-off that could involve a special cash dividend, 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."

Operation of Business and Strategic Risks

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.

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 must continue to evolve our processes to meet various intellectual property, regulatory, contractual and service compliance challenges, including compliance with licenses for open source and third-party software embedded in our offerings, compliance with export control and privacy regulations, protecting our services from external threats or inappropriate use, maintaining the continuous service levels and data security expected by our customers 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 their contractual obligations. 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.

Our success depends upon our ability to adapt our business and pricing models to a subscription and SaaS model appropriately.

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 and prior period amounts were reclassified to conform with this 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 purchasers of our on-premises products to our SaaS offerings, our ability to maintain or improve and to predict conversion rates will become more important.

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 information technology ("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, VMware Cloud Provider Program ("VCPP") offerings from our partners may compete directly with infrastructure-as-a-service ("IaaS") offerings from various public cloud providers such as Amazon Web Services ("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 AWS Outposts and Azure Stack. 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 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 New trends, such as Secure Access Service Edge (SASE) and Zero Trust Network Access, represent the coalescence of formerly distinct markets, such as identity management, secure web gateway, SD-WAN, network firewall, and cloud access security brokers. These trends may bring existing partners such as Zscaler and Okta into a more competitive position with Carbon Black, VeloCloud and other distributed network security offerings from VMware. If we are unable to successfully adapt our product and service offerings to meet these opportunities and rapidly evolving trends our operating results could be 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 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, increasing pricing pressure, increased sales and marketing expenses and lower operating margins, 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.

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 VMware vSphere ("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 vRealize management, vSAN storage virtualization, NSX virtual networking, as well as our Horizon client virtualization, Unified Endpoint Management mobile device management, and our managed subscription services, such as VMware Cloud on AWS, VMware Cloud on AWS Outposts and our VMware Cloud on Dell EMC. In October 2019, we completed the acquisition of Carbon Black, Inc. ("Carbon Black"), which now forms the nucleus of VMware's new set of enterprise security solutions focused on helping to provide advanced cybersecurity protection to customers. We have also been introducing SaaS versions of our on-premises products, including VMware Workspace ONE ("Workspace ONE") offerings, and investing in a range of SaaS and cloud-native technologies and products, including those acquired through our Heptio Inc., CloudHealth Technologies, Inc., VeloCloud Networks, Inc. and Pivotal Software, Inc. ("Pivotal") acquisitions. 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, public, 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 adoption rates for our newer products and services are not sufficient to offset declines in revenue growth for our established server virtualization offerings, our overall revenue growth rates may slow materially or our revenue may decline substantially. Additionally, we may fail to realize returns on our investments in new initiatives and our operating results could be materially adversely affected.

Competition for our highly skilled employees is intense and costly, and our business and growth prospects may suffer if we cannot attract and retain them.

We must continue to attract and retain highly qualified personnel, particularly software and cloud engineers and sales and customer experience personnel, for which competition, particularly against companies with greater resources, startups and emerging growth companies is intense. 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. This competition results in increased costs in the form of cash and stock-based compensation and can have a dilutive impact on our stock. We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications, and, if we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could suffer.

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.

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

Developing our products and services is expensive, and developing and launching disruptive technologies requires significant investment often entailing greater risk than incremental investments in existing products and services. Our research and development expenses were approximately 24% of our total revenue during the year ended January 29, 2021. We plan to continue to significantly invest in our research and development efforts to maintain our competitive position. Our investments in research and development may result in products or services that generate less revenue than we anticipate or may not result in marketable products and services for several years or at all.

Acquisitions and divestitures could materially harm our business and operating results.

We have acquired in the past, and plan to acquire in the future, other businesses, products or technologies. We also sell or divest businesses, products and technologies from time-to-time. Acquisitions and divestitures involve significant risks and uncertainties, including:

- disruptions to our ongoing operations and diverting management from day-to-day responsibilities due to, for example, the need to provide transition services in connection with a disposition or difficulty integrating the operations, technologies, products, customers and personnel of acquired businesses effectively;
- adverse impacts to our business and financial results resulting from increases to our expenses due to, among other things, integrating business operations and on-boarding personnel and the incurrence of amortization expense related to identifiable intangible assets acquired and other accounting consequences of acquisitions;
- reductions to our cash available for operations, stock repurchase programs and other uses, potentially dilutive issuances of equity securities or the incurrence of additional debt;
- uncertainties in achieving the expected benefits of an acquisition or disposition, including with respect to our business strategy, revenue, technology, human resources, cost and operating efficiencies and other synergies, due to, among

other things, a lack of experience in new markets, products or technologies; or an initial dependence on unfamiliar distribution partners or vendors;

- unidentified issues that were not discovered during the diligence process, including issues with the acquired or divested business's intellectual property, product quality, security, privacy and accounting practices, regulatory compliance or legal contingencies;
- lawsuits resulting from an acquisition or disposition;
- maintenance or establishment of acceptable standards, controls, procedures or policies with respect to an acquired business; and
- the need to later divest acquired assets at a loss if an acquisition does not meet our expectations.

Disruptions to our distribution channels, including our various routes to market through Dell, could harm our business.

Our future success is highly dependent on our relationships with channel partners, including distributors, resellers, system vendors and systems integrators, which contribute to 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 channel partners, and the contracts that we do have with these channel partners do not prohibit them from offering products or services that compete with ours.

One of our distributors accounted for 10% or more of our consolidated revenue during the year ended January 29, 2021. 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.

Additionally, sales via our various route-to-market relationships with Dell accounted for 35% of our consolidated revenue during the year ended January 29, 2021 and transactions where Dell acted as an original equipment manufacturer ("OEM") accounted for 12% of the revenue from Dell, or 4% of our consolidated revenue. Such routes to market include Dell selling joint solutions as an OEM, 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. Any disruption or significant change to our relationship with Dell or the terms upon which they sell and distribute our products and services 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.

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 offerings (including software-defined networking, VCPP-integrated virtual desktop and mobile device, cloud and SaaS) 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 us to invest significant time and resources to educate customers on the benefits of our offerings. These investments can be costly and educating our sales force can distract from their efforts to sell existing products and services. Additionally, from time to time, we reorganize our go-to-market teams to increase efficiencies and improve customer coverage, but these reorganizations can cause short-term disruptions that may negatively impact sales over one or more fiscal periods. Further, upon entering into new industry segments, we may choose to go to market with third-party manufactured hardware appliances that are integrated with our software—as we did when we entered into the SD-WAN space through our acquisitions of VeloCloud Networks, Inc. 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 launches of managed subscription services, such as VMware Cloud on AWS and VMware Cloud on Dell EMC, require us to implement new methods to deliver and monitor end user services and adjust our model for releasing product upgrades. As our customers increasingly shift from one-time purchases of perpetual software licenses to purchasing our software via more subscription and SaaS-based programs, our go-to-market teams will need to alter their outreach to customers to support ongoing consumption of our offerings, and we will need to appropriately adjust the variable compensation programs we use to incentivize our sales teams. If we fail to successfully adjust, develop and implement effective go-to-market strategies, our financial results may be materially adversely impacted.

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

The industries in which we compete are characterized by rapid, complex and disruptive changes in technology, customer demands and industry standards that could make it difficult for us to effectively compete and cause our existing and future software solutions to become obsolete and unmarketable. Our ability to react quickly to new technology trends—such as cloud computing, which is disrupting the ways businesses consume, manage and provide physical IT resources, applications, data and IT services—and customer requirements is negatively impacted by the length of our development cycle for new and enhanced products and services, 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 maintain their compatibility with IT resources, such as public clouds, utilized by our customers while sustaining and enhancing 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 to take full advantage of substantial new capabilities, which may subdue initial demand for the new versions or 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—in applications, networking or security, for example—or in ways that are compelling to customers, our ability to retain or increase market share and revenue could be materially adversely affected. We may also fail to adequately anticipate the commercialization of emerging technologies, such as blockchain, and the development of new markets and applications for our technology, such as edge computing, and thereby fail to take advantage of new market opportunities or fall behind early movers in those markets.

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

A significant portion of our employees, customers and channel partners are located outside the U.S. Our international activities account for a substantial portion of our revenue and profits, and our investment portfolio includes investments in non-U.S. financial instruments and holdings in non-U.S. financial 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 delivering support, training and documentation; enforcing contracts; collecting accounts receivable; transferring funds; maintaining appropriate controls relating to revenue recognition practices; and longer payment cycles in certain countries and especially in emerging markets;
- network security and privacy concerns, which could make foreign customers reluctant to purchase products and services from U.S.-based technology companies;
- tariffs and trade barriers, and other regulatory or contractual limitations on our ability to sell or develop our products and services in certain foreign markets, such as in China, whose government has adopted a range of laws and regulations relating to the procurement of key network equipment and security products and the storage and processing of data that might cause our business in China to suffer and expose us to civil and criminal penalties;
- economic or political instability and uncertainty about or changes in government and trade relationships, policies, and treaties that could adversely affect the ability of U.S.-based companies to conduct business in non-U.S. markets, such as in the U.K. where considerable regulatory uncertainty remains regarding compliance post-Brexit; and
- legal risks, particularly in emerging markets, relating to compliance with U.S. exchange control requirements and international and U.S. anti-corruption laws and associated exposure to significant fines, penalties and reputational harm.

Our failure to manage any of these risks successfully could negatively affect our reputation and materially adversely affect our 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 extend the functionality of various products to work with native public cloud applications, which in some cases requires 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.

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.

Financial Risks

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 and renewal 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;
- the timing of announcements or releases of new or upgraded products and services by us, our partners or competitors;
- the timing of sales orders processing, which can cause fluctuations in our backlog and impact our bookings and timing of revenue recognition;
- 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, and the timing and amount of internal use software development costs that may be capitalized;
- 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 and size of realignment plans and restructuring charges;
- seasonal factors such as end of fiscal period expenditures by our customers and the timing of holiday and vacation periods;
- unplanned events that could affect market perception of the quality or cost-effectiveness of our products and solutions; and
- fluctuations in the severity and duration of the COVID-19 pandemic and resulting restrictions on business activity which may vary significantly by region.

Adverse economic conditions may harm our business.

Our business success depends in part on worldwide economic conditions. The overall demand for and spend on IT may be viewed by our current and prospective customers as discretionary and, in times of economic uncertainty, customers may delay, decrease, reduce the value and duration, or cancel purchases and upgrades of our products and services. Weak economic conditions or significant uncertainty regarding the stability of financial markets related to stock market volatility, inflation, recession, changes in tariffs, trade agreements or governmental fiscal, monetary and tax policies, among others, could adversely impact our business, financial condition and operating results. General and ongoing tightening in the credit market, lower levels of liquidity, increases in rates of default and bankruptcy and significant volatility in equity and fixed-income markets could all negatively impact our customers' purchasing decisions. Increases in interest rates on credit and debt that would increase the cost of our borrowing could impact our ability to access the capital markets and adversely affect our ability to repay or refinance our outstanding indebtedness, fund future product development and acquisitions or conduct stock buybacks.

For example, the COVID-19 pandemic has depressed economic activity worldwide, and the timing and strength of an economic recovery is highly uncertain and likely to vary significantly by region. While the COVID-19 pandemic has not had a material adverse financial impact on our operations to date, the future course of the pandemic and any resulting economic impact remain highly uncertain and continue to rapidly evolve. We have observed negative impacts on our sales and our financial results from the COVID-19 pandemic and there continues to be significant uncertainty regarding the economic effects of the COVID-19 pandemic. For example, during much of fiscal 2021, we saw delays in customers' large transformative on-premises projects that we believe were largely due to COVID-19, which negatively impacted our product sales. Although pandemic conditions in most regions of the world began easing following the start of fiscal 2022, there remains considerable uncertainty regarding the progress of vaccination programs, the dangers posed by COVID-19 variants and when a return to pre-pandemic conditions can occur. Accordingly, should the pandemic persist for a long period of time, economic conditions globally or in particular regions may fail to recover or even worsen, which could cause material adverse impacts to our earnings and other results of operations. 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 the equity or debt capital markets on attractive terms or at all for a period of time, which could have an adverse effect on our liquidity position.

Additionally, Brexit and trade tensions between the U.S. and its trading partners, like China, have caused and may continue to cause significant volatility in global financial markets. Amidst sustained economic uncertainty, many national and local governments that are current or prospective customers, including the U.S. federal government, may need to make significant changes in their spending priorities, which could reduce the amount of government spending on IT and the potential demand for our products and services from the government sector.

These adverse economic conditions can arise suddenly, have unpredictable impacts and materially adversely affect our future sales and 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 $4.8 billion in unsecured notes outstanding, an additional unsecured promissory note with an outstanding principal amount of $270 million owed to Dell, and a $1.0 billion unsecured revolving credit facility (the “Credit Facility”), which was undrawn as of January 29, 2021. The terms of our unsecured notes and Credit Facility impose restrictions on us, including in specified and customary covenants, our compliance with which 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.

Additionally, in July 2020, Dell announced that it was exploring strategic alternatives with respect to its ownership interest in us, including a possible spin-off of its ownership interest to Dell stockholders, in connection with which it also expected to explore certain terms and conditions that could include negotiating a special cash dividend to be paid by VMware on a pro rata basis to all VMware stockholders that VMware would fund, in part, through the incurrence of additional indebtedness.

Our current and any future debt may adversely affect our financial condition and future financial results by, among other things, increasing our vulnerability to adverse changes in general economic and industry conditions, necessitating use or dedication of our expected cash flow from operations to service our indebtedness instead of for other purposes, such as capital expenditures and acquisitions, and limiting our flexibility in planning for, or reacting to, business changes.

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 our debt and equity securities;
- result in an increase in the interest rate payable by us and the cost of borrowing under our Credit Facility;
- negatively affect the terms of and restrict our ability to obtain financing in the future; and
- upon the occurrence of certain downgrades of the ratings of our unsecured notes, require us to repurchase our unsecured notes at a price equal to 101% of the aggregate principal plus any accrued and unpaid interest.

Additionally, our parent company, Dell, has a significant level of debt financing, and any 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 operating results may be adversely impacted by exposure to additional tax liabilities and higher than expected tax rates.

We are subject to income taxes as well as non-income-based taxes, such as payroll, sales and property taxes, in many of the jurisdictions in which we operate. Our tax liabilities are dependent on the allocation of revenue and expenses in different jurisdictions and the timing of recognizing revenue and expenses. Significant judgment is required to determine our worldwide provision for income taxes and other tax liabilities. For example, in the ordinary course of our global business, we execute intercompany transactions, including intellectual property transfers, that require us to make tax estimates because the ultimate tax determination is uncertain. We are subject to income and indirect tax examinations and are undergoing audits in various jurisdictions. For instance, the Internal Revenue Service (“IRS”) has started its examination of fiscal years 2015 through 2019 for the Dell consolidated group, of which VMware was part beginning in Dell’s fiscal year 2017. While we believe we have complied with all applicable income tax laws and made reasonable tax estimates, a governing tax authority could have a different legal interpretation and a final determination of tax audits or disputes may differ from what is reflected in our historical income tax provisions or benefits and accruals and we may be assessed 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:

- the expiration of legal statutes of limitation and settlements of audits;
- the impact of accounting for stock-based compensation and for business combinations, such as our acquisition of Pivotal, which was accounted for as a common control transaction;
- the recognition of excess tax benefits or deficiencies within the income tax provision or benefit in the period in which they occur;
- the overall levels and 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; and
- changes in tax laws or their interpretations, in our business or statutory rates, and in our corporate structure.

For example, in October 2014, Ireland announced revisions to its tax regulations, that, among other things, would raise tax rates on the foreign earnings of our Ireland-organized subsidiary by which our non-U.S. earnings are primarily earned. For this and other reasons, we proactively made structural changes to mitigate the impact of the changing Irish tax regulations to our future tax rates. Numerous other countries have also recently enacted or are considering enacting changes to tax laws, administrative interpretations, decisions, policies and positions. These and any other significant changes to U.S., Irish or international tax laws could materially adversely affect our effective tax rate, the timing and amount of our tax liabilities and payments, our financial condition and operating results.

Security Risks

Cybersecurity breaches of our systems or the systems of our vendors, partners and suppliers could materially harm our business.

Cyber risks represent a large and growing risk to our business, as we depend upon our IT systems, proprietary software and services, as well as the systems of SaaS providers, to conduct virtually all of our business operations. Some of the factors that contribute to significant cyber risks include:

- We increasingly develop and maintain large data sets and rely on machine learning, artificial intelligence and analytics to provide services to our customers and partners.
- Customers conduct purchase and service transactions online, and we store increasing amounts of customer data and host or manage parts of customers' businesses in cloud-based IT environments.
- Due to the COVID-19 pandemic and the rollout of our "Future of Work" program to work from anywhere, greater numbers of our employees work remotely, making them and us more vulnerable to cyber-attacks, including email phishing and social engineering.
- We rely on third parties and their systems for a number of our business functions and to sell our products and services as distributors, resellers, system vendors and systems integrators.
- Sophisticated hardware, software and applications that we produce or procure from third parties may contain defects that could unexpectedly interfere with our systems and processes.
- Our leadership position in the enterprise security industry makes us and our products a target of computer hackers seeking to compromise product security.

Cyber-attacks, which are increasing in number and technical sophistication, threaten to misappropriate our proprietary information, cause interruptions of our IT services, extract financial gain and commit fraud. We may not be able to anticipate the techniques used in such attacks, as they change frequently and may not be recognized until launched. If unauthorized access or sabotage remains undetected for an extended period of time, the effects of any such breach could be exacerbated.

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 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. Additionally, we are increasingly targeted for financial gain and fraud by criminal persons and groups that seek to extort or steal funds from companies and employees. 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 they are restored and secured;
- our ability to process and electronically deliver customer orders 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 them, thereby damaging the reputation and perceived reliability and security of our products and services and potentially making the data systems of our customers and partners vulnerable to further data loss and cyber incidents; and
- personally identifiable information 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, partners, vendors, or employees (among others); 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, remediate damages and defend the Company in any legal, regulatory or legislative proceedings. Consequently, our business, financial condition and operating results could be materially adversely affected.

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 of which may only be discovered after a product or service has been installed and used by customers. Unanticipated vulnerabilities in user environments, installation errors or misuse can also lead to unintended access to or exploitation of our products. Accordingly, from time to time we have issued security alerts and provided software updates to customers when such issues have been identified. 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 semiconductors). 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 materially negatively impact our business, operating results and stock price.

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 fulfilling contractual obligations, including processing customer orders, delivering products and providing services, 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. Additionally, our information systems may not efficiently support new business models and initiatives, and significant investments could be required in order to upgrade existing or implement new systems. Business requirements may require additional capabilities including implementation of a new information system. For example, during the first quarter of fiscal 2020 we implemented a new lease accounting software to facilitate the preparation of financial information related to the adoption of accounting standard updates. Further, we continuously work to enhance our information systems, such as our enterprise resource planning software, and the implementation of such enhancements is frequently disruptive to the underlying enterprise, which may especially be the case for us due to the size and complexity of our business, and may disrupt internal controls and business processes that could introduce unintended vulnerability to error. Any such disruption to our information systems and those of the third parties upon whom we rely could have a material impact on our business.

Legal and Compliance Risks

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

As described in Note E (Litigation) to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K, we are, and may become, involved in various legal and regulatory proceedings, and investigations relating to our business, including with respect to antitrust and competition, breach of contract, class action, commercial, corporate governance, cybersecurity, employment, intellectual property, privacy, securities, and whistleblower matters. Matters such as these may impact our business in different ways. Intellectual property infringement claims, for example, may seek injunctive relief or other court orders that could prevent us from offering our products. As a result, 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, or we may be required to develop non-infringing technology, which could require significant effort and expense and may ultimately not be successful. Because we generally indemnify our customers and partners from intellectual property infringement claims in connection with the use of our products, we may be called on to defend these customers and partners in litigation. From time to time, we also receive inquiries from and have discussions with government entities regarding our compliance with laws and regulations. Such litigation, investigations, regulatory inquiries, and proceedings can be unpredictable and time-consuming, divert management's attention and resources, and cause us to incur significant expenses. Allegations made in connection with these matters may harm our reputation, regardless of their merit and could have a material adverse impact on our business, financial condition, cash flows or results of operations if decided adversely to or settled by us.

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.

Actual or perceived non-compliance with privacy and data protection laws, regulations and standards could adversely impact our business.

Our business is subject to laws and regulations by various federal, state and international legislative and governmental agencies responsible for legislating, monitoring and enforcing privacy and data protection laws ("Data Privacy Laws"). The regulatory framework regarding the collection, protection, use, transfer and disclosure of personal information is rapidly evolving, and Data Privacy Laws are subject to new and changing interpretations and amendments, creating uncertainty and additional legal obligations for ourselves, our partners, vendors and customers. We expect that there will continue to be newly proposed or changes to interpretations of existing Data Privacy Laws and industry standards, including self-regulatory standards advocated by industry groups, in various jurisdictions globally, and we may not be able to appropriately anticipate or timely respond to the impacts such and similar developments may have on our business or the businesses of our partners, vendors and customers.

We continue to regularly enhance our policies and controls across our business relating to how we and our business partners collect, protect and use customer and employee personal information. Ongoing changes to the regulatory landscape will likely increase the cost and complexity of our business relationships, internal operations and the delivery of our products and services. In addition, this may affect our ability to run promotions and effectively market our offerings and could subsequently impact the demand for our products and services.

Any actual or perceived failure by us or our business partners to comply with Data Privacy Laws, the privacy commitments contained in our contracts, or the privacy notices we have posted on our website could subject us to investigations, sanctions, enforcement actions, negative financial consequences, civil and criminal liability or injunctions. For example, failure to comply with the EU's General Data Protection Regulation 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 us to demonstrate compliance with current Data Privacy Laws and further make contractual commitments and implement processes to enable the customer to comply with their own obligations under Data Protection Laws, and our actual 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 our financial and operating results could be materially adversely affected.

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 source 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.

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

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 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, fines and suspension from future government contracting, any of which could adversely affect our business, operating results or financial condition. Further, any negative publicity related to our government contracts or any proceedings surrounding them, regardless of accuracy, may damage our business and affect our ability to compete for new contracts.

Risks Related to Our Relationship with Dell

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

As of January 29, 2021, 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 80.6% of the total outstanding shares of common stock or 97.4% of the voting power of outstanding common stock held by EMC, and we are considered a “controlled” company under the rules of the New York Stock Exchange (“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, in July 2020, Dell announced that it was exploring its strategic alternatives with respect to its ownership interest in us, including a possible spin-off of its ownership interest to Dell stockholders and that as part of that exploration it also expected to explore certain terms and conditions that could include negotiating a special cash dividend to be paid by VMware on a pro rata basis to all VMware stockholders that VMware would fund, in part, through the incurrence of additional indebtedness. A special committee of independent directors of our board of directors has been evaluating the spin-off. However, there can be no assurance that a spin-off will occur. Previously, during 2018, Dell had conducted a review of its strategic alternatives 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. During the fiscal 2021, revenue from Dell, including purchases of products and services directly from us, as well as through our channel partners, accounted for 35% of our consolidated revenue, which included revenue from Dell selling joint solutions as an OEM, 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.
- 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.
- 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 and incur additional indebtedness. 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 29, 2021, Dell controlled 80.6% of the total outstanding shares of common stock, including all of our outstanding Class B common stock, representing 97.4% 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.

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 29, 2021, Dell controlled 80.6% 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.

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 that 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. Pivotal continues to be included on Dell's unitary state tax returns. Pursuant to a tax sharing agreement, Pivotal may receive or owe payments from or to Dell for tax benefits or expenses that Dell realized due to Pivotal's inclusion on such returns.

In December 2019, VMware amended the tax sharing agreement with Dell in connection with, and effective as of, the Pivotal acquisition. The tax sharing agreement with Dell, as amended and 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 10 directors and possesses sufficient voting control to elect the remaining directors. 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 Annual Report on Form 10-K 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 29, 2021, we recognized revenue of $4.1 billion, and as of January 29, 2021, $5.0 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 Annual Report on Form 10-K.

Dell, which beneficially owned 80.6% of our outstanding stock as of January 29, 2021, 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.

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.

General Risks

We are exposed to foreign exchange risks.

We conduct a meaningful portion of our business in currencies other than the U.S. dollar, but report our operating results in U.S. dollars. Accordingly, our operating results are subject to fluctuations in currency exchange rates. The realized gain or loss on foreign currency transactions is dependent upon the types of foreign currency transactions into which we enter, the exchange rates associated with these transactions and changes in those rates, the net realized gain or loss on our foreign currency forward contracts, among 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. For example, the economic uncertainty introduced by Brexit resulted in significant volatility in the value of the British pound and other currencies, and the COVID-19 pandemic may make it more difficult for us to accurately forecast future transactions in foreign currencies and cause us to have to modify hedging positions, thereby adversely impacting the efficacy of our foreign currency hedging strategy and our operating results. Any future weakening of foreign currency exchange rates against the U.S. dollar would likely result in additional adverse impacts on our revenue.

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 29, 2021, goodwill and amortizable intangible assets were $9.6 billion and $993 million, respectively. We review our goodwill and amortizable intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. We test goodwill for impairment at least annually. Factors that may lead to impairment include a substantial decline in stock price and market capitalization or cash flows, reduced future cash flow estimates related to the assets and slower growth rates in our industry. We may be required to record a significant charge in our financial statements during the period in which any impairment of our goodwill or amortizable intangible assets is determined, which would negatively impact our operating results.

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.

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 Securities and Exchange Commission 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.

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

A significant natural disaster, such as an earthquake, fire, flood or other act of God, catastrophic event or pandemic, abrupt political change, terrorist activity and armed conflict, and any similar disruption, as well as any derivative disruption, such as those to services provided through localized physical infrastructure, including utility or telecommunication outages, or any to the continuity of our, our partners' and our customers' workforce, could have a material adverse impact on our business and operating results. Our worldwide operations are dependent on our network infrastructure, internal technology systems and website, as well as our intellectual property and personnel, significant portions of which, including our corporate headquarters, are located in California, a region known for seismic activity, fires and floods. Disruption to these dependencies may negatively impact our ability to respond to customer requests, process orders, provide services and maintain local and global business continuity. Delays or cancellations of customer orders or the deployment or availability of our products and services, for example, could materially impact our revenue. Furthermore, some of our newer product initiatives, offerings and business functions are hosted or carried out by third parties that may be vulnerable to these same types of disruptions, the response to or resolution of which may be beyond our control. Additionally, any such disruption could cause us to incur significant costs to repair damages to our facilities, equipment, infrastructure and business relationships.

Climate change may have a long-term negative impact on our business.

Risks related to rapid climate change may have an increasingly adverse impact on our business and those of our customers, partners and vendors in the longer term. While we seek to mitigate the business risks associated with climate change for our operations, there are inherent climate-related risks wherever business is conducted. Access to clean water and reliable energy in the communities where we conduct our business, whether for our offices, data centers, vendors, customers or other stakeholders, is a priority. Any of our primary locations may be vulnerable to the adverse effects of climate change and the impacts of extreme weather events, which have caused regional short-term systemic failures in the U.S. and elsewhere. For example, our California headquarters are projected to be vulnerable to future water scarcity due to climate change. While this danger has a low-assessed risk of disrupting normal business operations, it has the potential to impact employees' abilities to commute to work or to work from home and stay connected effectively. Climate-related events, including the increasing frequency of extreme weather events, their impact on critical infrastructure in the U.S. and internationally and their potential to increase political instability in regions where we, our customers, partners and our vendors do business, have the potential to disrupt our business, our third-party suppliers, or the business of our customers and partners, and may cause us to experience higher attrition, losses and additional costs to maintain or resume operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

As of January 29, 2021, 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:	1,926,745	Administrative offices, sales and marketing, R&D and data center
Asia Pacific region	leased:	1,960,960	Administrative offices, sales and marketing, R&D and data center
Europe, Middle East and Africa region	leased:	749,958	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 will support our employee headcount through fiscal 2022 while working in a distributed manner that empowers our people to work from any location, consistent with business requirements. We review our real estate on an ongoing basis to support our growing employee base and operational excellence.

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

As of March 16, 2021, we had 26 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 of which is an indirect wholly owned subsidiary of Dell Technologies Inc. ("Dell").

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, which was paid on December 28, 2018, with a per share dividend amount of $26.81.

On July 15, 2020, Dell Technologies Inc. ("Dell") announced that it is exploring potential alternatives with respect to its ownership interest in VMware, Inc. ("VMware"), including a potential spin-off of its ownership interest to Dell stockholders that is intended to qualify as generally tax-free for U.S. federal income tax purposes to Dell and its stockholders (a "Spin-off"). VMware has formed a special committee of the board of directors (the "Special Committee") to evaluate and engage in discussions and negotiations with Dell with respect to any proposal that may be made by Dell with respect to a Spin-off. As part of the discussions, VMware expects that it may negotiate with Dell the payment of a special cash dividend by VMware, which would be paid on a pro rata basis to all of VMware's stockholders. 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 three months ended January 29, 2021 were as follows:

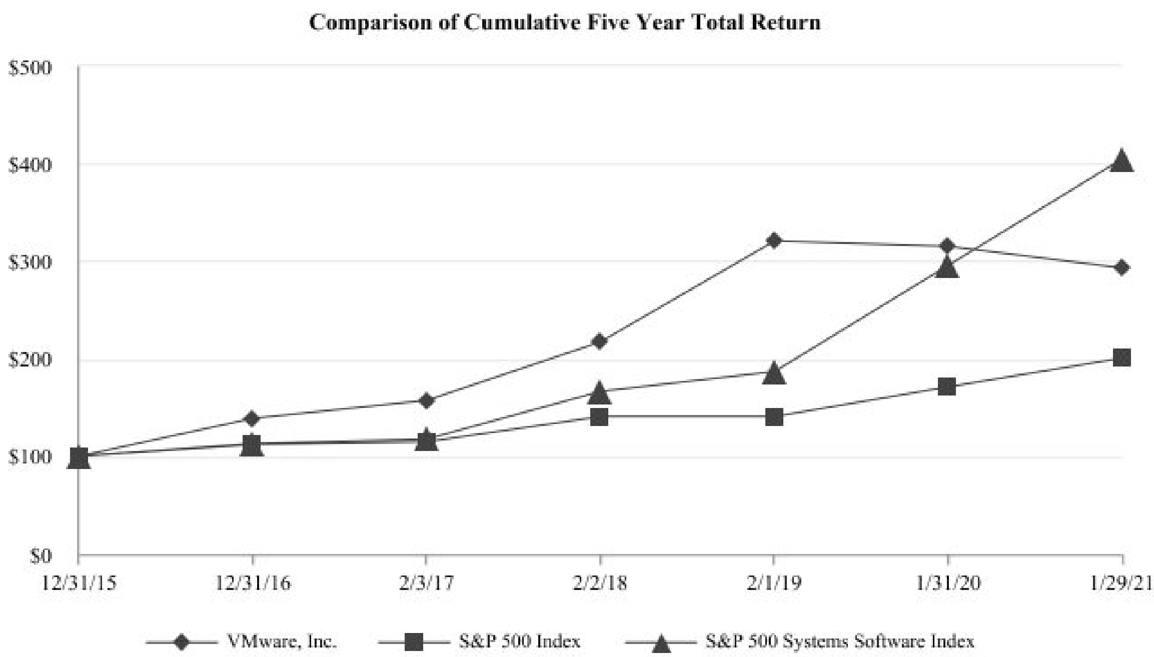
	Total Number of Shares Purchased	Average Price Paid Per Share[1]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Publicly Announced Plans or Programs[2]
October 31 – November 27, 2020	850,000	$ 141.83	850,000	$ 1,313,867,804
November 28 – December 25, 2020	750,000	141.78	750,000	1,207,530,664
December 26, 2020 – January 29, 2021	1,114,591	136.65	1,114,591	1,055,223,853
	2,714,591	$ 139.69	2,714,591	1,055,223,853

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

(2) Represents the cumulative amount remaining for stock repurchases under the May 2019 and July 2020 authorizations, which expire at the end of fiscal 2022. Amounts remaining exclude commissions. 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.

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, 2015 through January 29, 2021, assuming an initial investment of $100. The stockholder return assumes reinvestment of dividends.



	Base Period 12/31/2015	12/31/2016	2/3/2017	2/2/2018	2/1/2019	1/31/2020	1/29/2021
VMware, Inc.	$ 100.00	$ 139.17	$ 157.24	$ 216.93	$ 320.27	$ 315.06	$ 293.34
S&P 500 Index	100.00	111.96	115.06	141.10	141.02	171.42	200.99
S&P 500 Systems Software Index	100.00	113.24	117.29	166.27	186.46	295.27	404.80

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

Part II, Item 6 is no longer required as the Company has adopted certain provisions within the amendments to Regulation S-K that eliminate Item 301.

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 Software, Inc. (“Pivotal”), which was, at the time, a subsidiary of VMware’s parent company, Dell Technologies Inc. (“Dell”). The purchase of the controlling interest in Pivotal from Dell 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.

Additionally, effective with the fourth quarter of fiscal 2020, VMware is presenting new revenue and cost of revenue line items entitled, "subscription and SaaS revenue" and "cost of 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 on the consolidated statements of income. In light of our recent acquisitions, management decided to separately present revenue recognized from subscription and SaaS offerings as management believes it provides a more meaningful representation of the nature of its revenue. Revenue and its related costs from prior periods were reclassified to conform to the current presentation.

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 and February 1, 2019 as "fiscal 2021," "fiscal 2020," and "fiscal 2019," 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."

Discussion regarding our financial condition and results of operations for fiscal 2020 as compared to fiscal 2019 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended January 31, 2020, filed with the SEC on March 26, 2020.

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 businesses 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 transformations.

Our portfolio supports and addresses the key priorities of our customers including accelerating their cloud journey, migrating and modernizing their applications, empowering digital workspaces, transforming networking and embracing intrinsic security. We enable customers to digitally transform their operations as they ready their applications, infrastructure and employees for constantly evolving business needs.

We sell our solutions using enterprise agreements ("EAs") or as part of our non-EA, or transactional, business. EAs are comprehensive offerings that may include license and subscription and SaaS, 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 resulting in additional license sales of both our existing and newer products and solutions.

Our vSphere and vRealize Cloud Management products 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 2021, we saw a decline in our on-premises license sales, which were negatively impacted by the COVID-19 pandemic.

During fiscal 2021, revenue growth in our subscription and SaaS offerings was primarily driven by our VMware Cloud Provider Program ("VCPP"), VMware Workspace ONE ("Workspace ONE"), VMware Tanzu, VMware Cloud on AWS and VMware Carbon Black Cloud. We expect revenue growth derived from our subscription and SaaS offerings to continue. In addition, we expect operating margin to be negatively impacted in fiscal 2022 as a result of our incremental investment in our subscription and SaaS portfolio.

During fiscal 2021, we saw an increase in the portion of our sales occurring through our subscription and SaaS 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. As a result, the rate of growth in our license revenue, which has historically been viewed as a leading indicator of our business performance, may be less relevant and we believe that the overall growth rate of our combined license and subscription and SaaS revenue, as well as the growth in remaining performance obligations, will become better indicators of our future growth prospects.

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. During fiscal 2021, revenue from Dell, including purchases of products and services directly from us, as well as through our channel partners, accounted for 35% of our consolidated revenue. These purchases included Dell as an original equipment manufacturer ("OEM"), which accounted for 12% of our revenue from Dell, or 4% of our consolidated revenue, during fiscal 2021. 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 ("DFS") also provided financing to our end users at our end users' discretion.

COVID-19 Impact

The worldwide spread of COVID-19 has resulted in, and may continue to cause, a global slowdown of economic activity while also disrupting sales channels and marketing activities for an unknown period of time until the disease is contained. While the COVID-19 pandemic has not had a material adverse financial impact on our operations to date, the future course of the pandemic, any resulting economic impact and the degree and rate of economic recovery remain highly uncertain and continue to rapidly evolve. Although the pandemic has not had the level of financial impact on our business in fiscal 2021 we initially expected, we did experience negative impacts on our sales and certain of our financial results and there continues to be uncertainty regarding the economic effects of the COVID-19 pandemic and the extent to which it will have a negative impact on our sales and our financial results into fiscal 2022. For example, license revenue decreased during fiscal 2021 due in part to the effects of COVID-19 as a number of our customers' business plans were impacted by the pandemic. We also expect our operating margin to benefit into fiscal 2022 from some of the short-term COVID-19 impacts on our operating expenses, including travel-, employee- and facilities-related costs.

We continue to closely monitor the impact of the pandemic on all aspects of our business.

Results of Operations

Approximately 70% of our sales are denominated in the United States ("U.S.") dollar. In certain countries, however, 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 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Revenue:							
License	$ 3,033	$ 3,181	$ 3,042	$ (149)	(5) %	$ 139	5 %
Subscription and SaaS	2,587	1,877	1,303	711	38	574	44
Total license and subscription and SaaS	5,620	5,058	4,345	562	11	713	16
Services:							
Software maintenance	5,105	4,754	4,351	351	7	403	9
Professional services	1,042	999	917	43	4	82	9
Total services	6,147	5,753	5,268	394	7	485	9
Total revenue	$ 11,767	$ 10,811	$ 9,613	$ 956	9	$ 1,198	12
Revenue:							
United States	$ 5,878	$ 5,405	$ 4,696	$ 473	9 %	$ 709	15 %
International	5,889	5,406	4,917	483	9	489	10
Total revenue	$ 11,767	$ 10,811	$ 9,613	$ 956	9	$ 1,198	12

Revenue from our subscription offerings consisted primarily of our VCPP cloud-based offerings that are billed to customers on a consumption basis and revenue from VMware Tanzu 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, VMware Cloud on AWS, CloudHealth by VMware and VMware SD-WAN by VeloCloud offerings, and newer SaaS offerings, such as VMware Carbon Black Cloud.

License revenue relating to the sale of on-premises 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 generally recognized over time as customers consume the services or ratably over the term of the subscription, commencing upon provisioning of the service.

License Revenue

License revenue decreased during fiscal 2021 compared to fiscal 2020, as a result of the economic impact of the COVID-19 pandemic on license sales, and due to a shift in demand from our on-premises solutions sold with perpetual licenses to cloud-based solutions. Additionally, as customers adopt our cloud-based offerings, 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, which deals historically have had a large license revenue impact.

Subscription and SaaS Revenue

Subscription and SaaS revenue increased during fiscal 2021 compared to fiscal 2020. Revenue growth from our VCPP, Workspace ONE, VMware Tanzu, VMware Cloud on AWS and VMware Carbon Black Cloud offerings continued to contribute to subscription and SaaS revenue growth during fiscal 2021 compared to fiscal 2020.

Services Revenue

During fiscal 2021 and fiscal 2020, software maintenance revenue continued to benefit from maintenance contracts sold in previous periods. 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 during fiscal 2021 compared to fiscal 2020. Services we provide through our technical account managers and our continued focus on solution deployments, including our networking, security, cloud management and digital workspace offerings, 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 29, 2021	January 31, 2020
Unearned license revenue	$ 15	$ 19
Unearned subscription and SaaS revenue	1,998	1,534
Unearned software maintenance revenue	7,092	6,700
Unearned professional services revenue	1,209	1,015
Total unearned revenue	$ 10,314	$ 9,268

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.

Unearned software maintenance revenue is attributable to our maintenance contracts and is generally recognized ratably over the contract duration. The weighted-average remaining contractual term as of January 29, 2021 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 29, 2021, the aggregate transaction price allocated to remaining performance obligations was $11.3 billion, of which approximately 55% is expected to be recognized as revenue over the next twelve months and the remainder thereafter. As of January 31, 2020, the aggregate transaction price allocated to remaining performance obligations was $10.3 billion, of which approximately 54% was expected to be recognized as revenue during fiscal 2021, 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. Backlog consists of licenses, subscription and SaaS, and services. As of January 29, 2021, our total backlog was $93 million, and our backlog related to licenses was $23 million. For our backlog related to licenses, we generally expect to deliver and recognize as revenue during the following quarter. Backlog totaling $18 million as of January 29, 2021 was excluded from the remaining performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs.

As of January 31, 2020, our total backlog was $18 million, and our backlog related to licenses was $5 million. 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.

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, offset in part by decreased travel-related costs resulting from travel restrictions imposed in response to the COVID-19 pandemic for fiscal 2021.

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 delivery of our products.

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

	For the Year Ended			Fiscal Year 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Cost of license revenue	$ 162	$ 165	$ 149	$ (3)	(2) %	$ 16	11 %
Stock-based compensation	1	1	1	—	2	—	45
Total expenses	$ 163	$ 166	$ 150	$ (3)	(2)	$ 16	11
% of License revenue	*5 %*	*5 %*	*5 %*				

Cost of license revenue remained relatively consistent in fiscal 2021 compared to fiscal 2020.

Cost of Subscription and SaaS Revenue

Cost of subscription and SaaS revenue primarily includes personnel costs and related overhead associated with hosted services supporting our SaaS offerings. Additionally, cost of subscription and SaaS revenue also 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 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Cost of subscription and SaaS revenue	$ 569	$ 387	$ 273	$ 182	47 %	$ 114	42 %
Stock-based compensation	19	13	7	6	45	6	83
Total expenses	$ 588	$ 400	$ 280	$ 188	47	$ 120	43
% of Subscription and SaaS revenue	*23 %*	*21 %*	*21 %*				

Cost of subscription and SaaS revenue increased in fiscal 2021 compared to fiscal 2020. The increase was primarily due to increased amortization of intangible assets of $83 million and growth in costs associated with hosted services to support our SaaS offerings of $64 million. The increase was also driven by increased equipment and depreciation of $31 million, as well as growth in cash-based employee-related cost of $16 million, which was driven by incremental growth in headcount and salaries, both organic and through acquisitions.

Cost of Services Revenue

Cost of services revenue primarily includes the costs of personnel and related overhead to 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 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Cost of services revenue	$ 1,193	$ 1,150	$ 1,064	$ 42	4 %	$ 86	8 %
Stock-based compensation	99	83	58	16	20	25	42
Total expenses	$ 1,292	$ 1,233	$ 1,122	$ 59	5	$ 111	10
% of Services revenue	*21 %*	*21 %*	*21 %*				

Cost of services revenue increased in fiscal 2021 compared to fiscal 2020. The increase was primarily due to growth in cash-based employee-related expenses of $112 million, primarily driven by incremental growth in headcount and salaries, both organic and through acquisitions. The increase was also driven by increased stock-based compensation of $16 million, primarily driven by increased restricted stock unit awards granted to our employees. These increases were partially offset by decreased travel-related costs of $49 million, resulting from travel restrictions imposed in response to the COVID-19 pandemic, as well as decreased facilities-related costs of $15 million.

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 and focus on expanding our subscription and SaaS offerings.

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

	For the Year Ended			Fiscal Year 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Research and development	$ 2,292	$ 2,063	$ 1,782	$ 228	11 %	$ 281	16 %
Stock-based compensation	524	459	391	65	14	68	17
Total expenses	$ 2,816	$ 2,522	$ 2,173	$ 294	12	$ 349	16
% of Total revenue	*24 %*	*23 %*	*23 %*				

Research and development expenses increased in fiscal 2021 compared to fiscal 2020. The increase was primarily due to growth in cash-based employee-related expenses of $237 million, primarily driven by incremental growth in headcount and salaries, both organic and through acquisitions, as well as increased stock-based compensation of $65 million, primarily driven by increased restricted stock unit awards granted to our employees. The increase was also driven by increased equipment and depreciation of $51 million. These increases were partially offset by decreased travel-related costs of $34 million resulting from travel restrictions imposed in response to the COVID-19 pandemic, as well as a decrease in capitalized internal-use software development costs of $21 million and facilities-related costs of $13 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 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Sales and marketing	$ 3,389	$ 3,384	$ 3,004	$ 7	— %	$ 377	13 %
Stock-based compensation	322	293	226	28	9	69	30
Total expenses	$ 3,711	$ 3,677	$ 3,230	$ 34	1	$ 446	14
% of Total revenue	*32 %*	*34 %*	*34 %*				

Sales and marketing expenses increased in fiscal 2021 compared to fiscal 2020. The increase was primarily due to growth in cash-based employee-related expenses of $154 million, primarily driven by incremental growth in headcount and salaries, both organic and through acquisitions, as well as increased stock-based compensation of $28 million, primarily driven by increased restricted stock unit awards granted to our employees. The increase was also driven by increased equipment and depreciation of $17 million. These increases were partially offset by decreased travel-related costs of $169 million resulting from travel restrictions imposed in response to the COVID-19 pandemic.

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.

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

	For the Year Ended			Fiscal Year 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
General and administrative	$ 610	$ 1,125	$ 729	$ (515)	(46) %	$ 396	54 %
Stock-based compensation	157	168	117	(11)	(6)	51	43
Total expenses	$ 767	$ 1,293	$ 846	$ (526)	(41)	$ 447	53
% of Total revenue	*7 %*	*12 %*	*9 %*				

General and administrative expenses decreased in fiscal 2021 compared to fiscal 2020. The decrease was primarily driven by a decrease in litigation expenses of $474 million due to the derecognition of accrued litigation loss of $237 million recognized in fiscal 2020 in connection with certain patent litigation, as well as decreased acquisition-related costs of $41 million. The decrease was also driven by decreased travel-related costs of $23 million resulting from travel restrictions imposed in response to the COVID-19 pandemic, as well as decreased equipment and depreciation of $17 million, stock based compensation of $11 million primarily due to departure of certain executives, and third-party professional services costs of $10 million. These decreases were partially offset by growth in cash-based employee-related expenses of $47 million, primarily driven by incremental growth in headcount and salaries, both organic and through acquisitions, as well as an increase in facilities-related cost of $31 million.

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.

Realignment

Realignment expenses during the periods presented were as follows (dollars in millions):

	For the Year Ended			Fiscal Year 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Realignment	$ 42	$ 79	$ 9	$ (36)	(46) %	$ 70	777 %
% of Total revenue	*— %*	*1 %*	*— %*				

During the third quarter of fiscal 2021, we approved a plan to streamline our operations and better align resources with our business priorities. As a result of this action, approximately 280 positions were eliminated in fiscal 2021. We recognized $42 million of severance-related realignment expenses in fiscal 2021 on the consolidated statements of income. Actions associated with this plan were substantially complete by the end of fiscal 2021.

Actions associated with a plan initiated in the fourth quarter of fiscal 2020 were completed during fiscal 2021.

Interest Expense

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

	For the Year Ended			Fiscal Year 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Interest expense	$ 204	$ 149	$ 134	$ 56	38 %	$ 15	11 %
% of Total revenue	*2 %*	*1 %*	*1 %*				

Interest expense increased in fiscal 2021 compared to fiscal 2020. The increase was primarily driven by the three series of unsecured senior notes issued during the first quarter of fiscal 2021 in the aggregate amount of $2.0 billion, and the senior unsecured term loan facility entered into during the third quarter of fiscal 2020 (the “Term Loan”) and repaid during the third quarter of fiscal 2021.

Other Income (Expense), net

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

	For the Year Ended			Fiscal Year 2021 vs. 2020		Fiscal Year 2020 vs. 2019	
	January 29, 2021	January 31, 2020	February 1, 2019	$ Change	% Change	$ Change	% Change
Other income (expense), net	$ 191	$ 86	$ (1)	$ 107	126 %	$ 87	(8,700)%
% of Total revenue	*2 %*	*1 %*	*— %*				

The change in other income (expense), net in fiscal 2021 compared to fiscal 2020 was primarily driven by a net unrealized gain of $163 million recognized on one of our investments in equity securities, which completed its initial public offering during the third quarter of fiscal 2021, compared to an unrealized gain of $21 million recognized in fiscal 2020. Additionally, unrealized losses on our investments in privately held companies were $14 million in fiscal 2021, compared to unrealized gains of $16 million in fiscal 2020.

The fair value of the publicly traded investment is determined primarily using the quoted market price of its common stock. As a result, any volatility in its publicly traded common stock introduces a degree of variability to our consolidated statements of income.

Income Tax Provision (Benefit)

The following table summarizes our income tax provision (benefit) during the periods presented (dollars in millions):

	For the Year Ended		
	January 29, 2021	January 31, 2020	February 1, 2019
Income tax provision (benefit)	$ 324	$ (4,918)	$ 239
Effective income tax rate	13.6 %	N/M	13.1 %

N/M - Effective tax rate is not considered meaningful.

The change in our effective income tax rate in fiscal 2021 compared to fiscal 2020 was primarily driven by a decrease in discrete tax benefits related to intra-group transfers of certain of our intellectual property rights. During fiscal 2020, a discrete tax benefit of $4.9 billion was recognized with a deferred tax asset due to an intra-group transfer of certain of our intellectual property rights to our Irish subsidiary. During fiscal 2021, a discrete tax benefit of $59 million was recognized with a deferred tax asset due to an intra-group transfer of Pivotal's intellectual property rights to our Irish subsidiary. The change was also driven by a decrease in excess tax benefits recognized, which were $41 million in fiscal 2021 compared to $182 million in fiscal 2020.

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 or benefit 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 left the Dell consolidated tax group at the time of Pivotal's initial public offering ("IPO") in April 2018.

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 subsidiary 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 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 or tax deficiencies within the income tax provision or benefit 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.

Our Relationship with Dell

The information provided below includes a summary of transactions with Dell and Dell's consolidated subsidiaries (collectively, "Dell").

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 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.

During the years ended January 29, 2021, January 31, 2020 and February 1, 2019, revenue from Dell accounted for 35%, 31% and 25% of our consolidated revenue, respectively. During the years ended January 29, 2021, January 31, 2020 and February 1, 2019, revenue recognized on transactions where Dell acted as an OEM accounted for 12%, 12% and 13% of revenue from Dell, respectively, or 4%, 4% and 3% of our consolidated revenue, respectively.

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 29, 2021	January 31, 2020	February 1, 2019	January 29, 2021	January 31, 2020
Reseller revenue	$ 4,053	$ 3,288	$ 2,355	$ 4,952	$ 3,787
Internal-use revenue	63	82	41	45	57
Collaborative technology project receipts	13	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 $214 million and $194 million as of January 29, 2021 and January 31, 2020, 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 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 29, 2021	**January 31, 2020**	**February 1, 2019**
Purchases and leases of products and purchases of services[(1)]	$ 206	$ 242	$ 200
Dell subsidiary support and administrative costs	74	119	145

[(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 that deliver our technology and this transfer centralizes these resources within our 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 continue to 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 provided by Dell over a period of 18 months, starting from the date of the acquisition, were not significant.

Dell Financial Services

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 $60 million, $66 million and $40 million during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, 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 29, 2021	**January 31, 2020**
Due from related parties, current	$ 1,558	$ 1,618
Due to related parties, current[(1)]	120	161
Due from related parties, net, current	$ 1,438	$ 1,457

[(1)] Includes an immaterial amount related to our current operating lease liabilities due to related parties.

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 sheets as of January 29, 2021 and January 31, 2020.

Amounts in due from related parties, net, excluding DFS and tax obligations, include 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

As of January 29, 2021 and January 31, 2020, we had an outstanding promissory note payable to Dell in the principal amount of $270 million due December 1, 2022. The note may be prepaid without penalty or premium. Interest is payable quarterly in arrears at the annual rate of 1.75%. During each of the years ended January 29, 2021, January 31, 2020 and February 1, 2019, interest expense on the notes payable to Dell was not significant.

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. Revenue recognized from sales to Ford while it was a related party was not significant during the year ended January 31, 2020 and was $12 million during the year ended 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. 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 and cash equivalents as follows (table in millions):

	January 29, 2021	January 31, 2020
Cash and cash equivalents	$ 4,692	$ 2,915
Short-term investments	23	—
Total cash, cash equivalents and short-term investments	$ 4,715	$ 2,915

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 our borrowing capacity, together with any cash generated from operations, will be sufficient to fund our operations for at least the next twelve months. 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.

On July 15, 2020, Dell announced that it is exploring potential alternatives with respect to its ownership interest in VMware, including a potential Spin-Off. VMware has formed a Special Committee to evaluate and engage in discussions and negotiations with Dell with respect to any proposal that may be made by Dell with respect to a Spin-off. As part of the discussions, VMware expects that it may negotiate with Dell the payment of a special cash dividend by VMware, which would be paid on a pro rata basis to all VMware stockholders that VMware might fund, in part, through the incurrence of additional indebtedness.

The 2017 Tax Act imposed a Transition Tax and eliminated 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 29, 2021 was $564 million, which we expect to pay over the next five years pursuant to a letter agreement between Dell, EMC and VMware executed during the first quarter of fiscal 2020. 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.

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

	For the Year Ended		
	January 29, 2021	**January 31, 2020**	**February 1, 2019**
Net cash provided by (used in):			
Operating activities	$ 4,409	$ 3,872	$ 3,657
Investing activities	(713)	(2,728)	4,442
Financing activities	(1,957)	(1,707)	(10,580)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	—	(2)	1
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 1,739	$ (565)	$ (2,480)

Operating Activities

Cash provided by operating activities increased by $537 million during fiscal 2021 compared to fiscal 2020, primarily driven by an increase in cash collections due to increased sales, as well as lower payments associated with lower travel spending due to the COVID-19 pandemic. These activities were partially offset by an increase in cash payments for employee-related expenses, including salaries and commissions, resulting primarily from growth in headcount, as well as increased tax payments during fiscal 2021.

Investing Activities

Cash used in investing activities decreased by $2.0 billion during fiscal 2021 compared to fiscal 2020, primarily driven by a decrease in cash used in business combinations.

Financing Activities

Cash used in financing activities increased by $250 million during fiscal 2021 compared to fiscal 2020. The increase was driven primarily by the repayment of the $1.5 billion Term Loan during fiscal 2021, as well as the redemption of the $1.3 billion unsecured senior note due August 21, 2020. These activities were partially offset by the net cash proceeds received from the issuance of long-term debt of $2.0 billion during fiscal 2021, as well as the cash payment for the acquisition of Pivotal during fiscal 2020 and a decrease of $389 million in repurchases of shares of our Class A common stock during fiscal 2021.

Unsecured Senior Notes

The following table summarizes the principal on our two series of unsecured senior notes issued August 21, 2017 and our three series of unsecured senior notes issued April 7, 2020 (collectively, the “Senior Notes”) as of January 29, 2021 (amounts in millions):

Senior Notes issued August 21, 2017:	
2.95% Senior Note Due August 21, 2022	$ 1,500
3.90% Senior Note Due August 21, 2027	1,250
Senior Notes issued April 7, 2020:	
4.50% Senior Note Due May 15, 2025	750
4.65% Senior Note Due May 15, 2027	500
4.70% Senior Note Due May 15, 2030	750
Total principal amount	$ 4,750

Interest on the Senior Notes issued on April 7, 2020 is payable semiannually in arrears, on May 15 and November 15 of each year, beginning November 15, 2020. The interest rate on each note issued on April 7, 2020 is subject to adjustment based on certain rating events. Interest on the Senior Notes issued on August 21, 2017 is payable semiannually in arrears, on February 21 and August 21 of each year. During the years ended January 29, 2021, January 31, 2020 and February 1, 2019, $114 million, $122 million and $122 million, respectively, was paid for interest related to the Senior Notes.

The Senior Notes also contain 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.

On May 11, 2020, we exercised a make-whole call and redeemed the $1.3 billion unsecured senior note due August 21, 2020 at a premium. We intend to use the remaining net proceeds of the Senior Notes for general corporate purposes, including mergers and acquisitions, repayment of other indebtedness or stock repurchases.

Revolving Credit Facility

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 29, 2021 and January 31, 2020, there was no outstanding borrowing under the revolving credit facility.

Senior Unsecured Term Loan Facility

On September 26, 2019, we entered into the Term Loan with a syndicate of lenders that provided us with a borrowing capacity of up to $2.0 billion through February 7, 2020, for general corporate purposes. During the third quarter of fiscal 2021, we repaid the outstanding balance of $1.5 billion on the Term Loan.

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 may 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, for example, 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 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 29, 2021 (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]	$ 5,818	$ 186	$ 1,826	$ 1,015	$ 2,791
Note payable to Dell[2]	279	5	274	—	—
Future Lease Commitments[3]	1,347	147	315	207	678
Purchase obligations	1,017	391	625	1	—
Tax obligations[4]	564	59	171	334	—
Asset Retirement Obligations	23	3	3	12	5
Sub-Total	9,048	791	3,214	1,569	3,474
Uncertain tax positions[5]	508				
Total	$ 9,556				

(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 and April 7, 2020 in the aggregate principal amount of $4.8 billion as of January 29, 2021.

(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 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 $72 million, as well as expected sublease income.

(4) Consists of future cash payments related to the Transition Tax.

(5) As of January 29, 2021, we had $508 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 $14 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 in future periods and will be recognized in the consolidated financial statements as new events occur and additional information becomes 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.

As the impact of the COVID-19 pandemic continues to evolve, estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require increased judgment. These estimates and assumptions may change in future periods and will be recognized in the consolidated financial statements as new events occur and additional information becomes known. To the extent our actual results differ materially from those estimates and assumptions, our future financial statements could be affected.

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 to the customer. 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 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. 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, SaaS offerings 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 29, 2021 and January 31, 2020, we had outstanding forward contracts with a total notional value of $486 million and $480 million, respectively. The fair value of these forward contracts was not significant as of January 29, 2021 and January 31, 2020.

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 29, 2021 and January 31, 2020, we had outstanding forward contracts with a total notional value of $1.2 billion and $1.1 billion, respectively. The fair value of these forward contracts was not significant as of January 29, 2021 and January 31, 2020.

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 $173 million in the fair value of our forward contracts as of January 29, 2021. This sensitivity analysis is based on the notional value of our outstanding forward contracts as of January 29, 2021 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.

Equity Price Risk

Strategic Investments

Our strategic investments include privately held companies that 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 less impairment, if any, adjusted for 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 $129 million and $134 million as of January 29, 2021 and January 31, 2020, respectively.

Marketable Equity Securities

Our equity investment in a publicly traded company is subject to market price risk. As of January 29, 2021, the fair value of our investment in equity securities, which begun publicly trading on September 16, 2020, was $162 million. Accordingly, a fluctuation in the price of the equity security could have an adverse impact on the fair value of our investment. A hypothetical adverse price change of 10% would have resulted in a potential decrease of $16 million in the fair value of our marketable equity security as of January 29, 2021. Refer to Notes I and K to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for further information.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

VMware, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND SCHEDULE

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 29, 2021 and January 31, 2020, 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 29, 2021, 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 29, 2021, 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 29, 2021 and January 31, 2020, and the results of its operations and its cash flows for each of the three years in the period ended January 29, 2021 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 29, 2021, 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.

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 matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

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 subscription ("subscription"), 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 29, 2021, the Company's revenue was $11.8 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 the 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.

/s/ PricewaterhouseCoopers LLP

San Jose, California
March 26, 2021

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 29, 2021	January 31, 2020	February 1, 2019
Revenue[1]:			
License	$ 3,033	$ 3,181	$ 3,042
Subscription and SaaS	2,587	1,877	1,303
Services	6,147	5,753	5,268
Total revenue	11,767	10,811	9,613
Operating expenses[2]:			
Cost of license revenue	163	166	150
Cost of subscription and SaaS revenue	588	400	280
Cost of services revenue	1,292	1,233	1,122
Research and development	2,816	2,522	2,173
Sales and marketing	3,711	3,677	3,230
General and administrative	767	1,293	846
Realignment	42	79	9
Operating income	2,388	1,441	1,803
Investment income	7	60	161
Interest expense	(204)	(149)	(134)
Other income (expense), net	191	86	(1)
Income before income tax	2,382	1,438	1,829
Income tax provision (benefit)	324	(4,918)	239
Net income	2,058	6,356	1,590
Less: Net loss attributable to non-controlling interests	—	(56)	(60)
Net income attributable to VMware, Inc.	$ 2,058	$ 6,412	$ 1,650
Net income per weighted-average share attributable to VMware, Inc. common stockholders, basic for Classes A and B	$ 4.90	$ 15.37	$ 3.99
Net income per weighted-average share attributable to VMware, Inc. common stockholders, diluted for Classes A and B	$ 4.86	$ 15.08	$ 3.92
Weighted-average shares, basic for Classes A and B	419,841	417,058	413,769
Weighted-average shares, diluted for Classes A and B	423,240	425,235	421,131

[1] Includes related party revenue as follows (refer to Note D):			
License	$ 1,598	$ 1,569	$ 1,176
Subscription and SaaS	524	342	217
Services	1,994	1,459	1,003
[2] Includes stock-based compensation as follows:			
Cost of license revenue	$ 1	$ 1	$ 1
Cost of subscription and SaaS revenue	19	13	7
Cost of services revenue	99	83	58
Research and development	524	459	391
Sales and marketing	322	293	226
General and administrative	157	168	117

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 29, 2021	January 31, 2020	February 1, 2019
Net income	$ 2,058	$ 6,356	$ 1,590
Other comprehensive income (loss):			
Changes in fair value of available-for-sale securities:			
Reclassification of (gains) losses realized during the period, net of tax (provision) benefit of $—, $— and $10	—	—	30
Net change in fair value of available-for-sale securities	—	—	30
Changes in fair value of effective foreign currency forward contracts:			
Unrealized gains (losses), net of tax provision (benefit) of $— for all periods	(1)	—	2
Reclassification of (gains) losses realized during the period, net of tax (provision) benefit of $— for all periods	—	(2)	—
Net change in fair value of effective foreign currency forward contracts	(1)	(2)	2
Foreign currency translation adjustments	—	—	(26)
Total other comprehensive income (loss)	(1)	(2)	6
Comprehensive income, net of taxes	2,057	6,354	1,596
Less: Net loss attributable to the non-controlling interests	—	(56)	(60)
Less: Other comprehensive income (loss) attributable to non-controlling interests	—	—	4
Comprehensive income attributable to VMware, Inc.	$ 2,057	$ 6,410	$ 1,652

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 29, 2021	January 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 4,692	$ 2,915
Short-term investments	23	—
Accounts receivable, net of allowance of $5 and $7	1,929	1,883
Due from related parties, net	1,438	1,457
Other current assets	530	436
Total current assets	8,612	6,691
Property and equipment, net	1,334	1,280
Other assets	2,697	2,266
Deferred tax assets	5,781	5,556
Intangible assets, net	993	1,172
Goodwill	9,599	9,329
Total assets	$ 29,016	$ 26,294
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 131	$ 208
Accrued expenses and other	2,382	2,151
Current portion of long-term debt and other borrowings	—	2,747
Unearned revenue	5,873	5,218
Total current liabilities	8,386	10,324
Note payable to Dell	270	270
Long-term debt	4,717	2,731
Unearned revenue	4,441	4,050
Income tax payable	805	817
Operating lease liabilities	891	746
Other liabilities	455	347
Total liabilities	19,965	19,285
Contingencies (refer to Note E)		
Stockholders' equity:		
Class A common stock, par value $0.01; authorized 2,500,000 shares; issued and outstanding 112,082 and 110,484 shares	1	1
Class B convertible common stock, par value $0.01; authorized 1,000,000 shares; issued and outstanding 307,222 shares	3	3
Additional paid-in capital	1,985	2,000
Accumulated other comprehensive loss	(5)	(4)
Retained earnings	7,067	5,009
Total stockholders' equity	9,051	7,009
Total liabilities and stockholders' equity	$ 29,016	$ 26,294

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

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

	Twelve Months Ended		
	January 29, 2021	January 31, 2020	February 1, 2019
Operating activities:			
Net income	$ 2,058	$ 6,356	$ 1,590
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	1,025	873	727
Stock-based compensation	1,122	1,017	800
Deferred income taxes, net	(152)	(5,284)	(110)
Unrealized (gain) loss on equity securities, net	(172)	(31)	14
Loss on disposition	—	—	7
(Gain) loss on disposition of assets, revaluation and impairment, net	24	(4)	2
Loss on extinguishment of debt	8	—	—
Other	(1)	9	11
Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	(37)	(119)	(214)
Other current assets and other assets	(879)	(668)	(347)
Due to/from related parties, net	19	(374)	(480)
Accounts payable	(69)	35	105
Accrued expenses and other liabilities	518	417	290
Income taxes payable	(68)	(23)	(40)
Unearned revenue	1,013	1,668	1,302
Net cash provided by operating activities	4,409	3,872	3,657
Investing activities:			
Additions to property and equipment	(329)	(279)	(254)
Purchases of available-for-sale securities	—	—	(780)
Sales of available-for-sale securities	26	—	3,999
Maturities of available-for-sale securities	—	—	2,393
Purchases of strategic investments	(29)	(30)	(8)
Proceeds from disposition of assets	28	22	41
Business combinations, net of cash acquired, and purchases of intangible assets	(409)	(2,437)	(938)
Net cash paid on disposition of a business	—	(4)	(11)
Net cash provided by (used in) investing activities	(713)	(2,728)	4,442
Financing activities:			
Proceeds from the initial public offering of Pivotal, net of issuance costs paid	—	—	544
Proceeds from issuance of common stock	273	308	259
Net proceeds from issuance of long-term debt	1,979	—	—
Borrowings under term loan, net of issuance costs	—	3,393	—
Borrowings on credit facility, net of debt issuance costs	—	—	15
Repayment of term loan	(1,500)	(1,900)	—
Repayment of current portion of long-term debt	(1,257)	—	—
Repayments on credit facility	—	—	(35)
Repurchase of common stock	(945)	(1,334)	(42)
Shares repurchased for tax withholdings on vesting of restricted stock	(412)	(534)	(357)
Payment for Special Dividend	—	—	(11,000)
Payment to acquire non-controlling interests	(91)	(1,666)	—
Contribution from Dell	—	27	44
Payment for common control transaction with Dell	—	—	(8)
Principal payments on finance lease obligations	(4)	(1)	—
Net cash used in financing activities	(1,957)	(1,707)	(10,580)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	—	(2)	1
Net increase (decrease) in cash, cash equivalents and restricted cash	1,739	(565)	(2,480)
Cash, cash equivalents and restricted cash at beginning of the period	3,031	3,596	6,076
Cash, cash equivalents and restricted cash at end of the period	$ 4,770	$ 3,031	$ 3,596
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	200	134	129
Cash paid for taxes, net	543	369	399

Non-cash items:			
Changes in capital additions, accrued but not paid	$ (10)	$ 18	$ 9
Changes in tax withholdings on vesting of restricted stock, accrued but not paid	1	(13)	17

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 2, 2018	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	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
Proceeds from issuance of common stock	3	—	—	—	273	—	—	—	273
Repurchase and retirement of common stock	(7)	—	—	—	(945)	—	—	—	(945)
Issuance of restricted stock	9	—	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(3)	—	—	—	(413)	—	—	—	(413)
Stock-based compensation	—	—	—	—	1,116	—	—	—	1,116
Amount due from tax sharing arrangement	—	—	—	—	(46)	—	—	—	(46)
Total other comprehensive income (loss)	—	—	—	—	—	—	(1)	—	(1)
Net income	—	—	—	—	—	2,058	—	—	2,058
Balance, January 29, 2021	112	$ 1	307	$ 3	$ 1,985	$ 7,067	$ (5)	$ —	$ 9,051

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 businesses 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, which was, at the time, a subsidiary of VMware’s parent company, Dell Technologies Inc. (“Dell”). The purchase of the controlling interest in Pivotal from Dell 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. The consolidated financial statements of VMware and notes thereto are presented on a combined basis, as 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. As of January 29, 2021, Dell controlled 80.6% of VMware’s outstanding common stock and 97.4% 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. As part of the acquisition of Pivotal, VMware acquired the non-controlling interests in Pivotal from the holders of Pivotal Class A common stock and has held 100% of the controlling financial interest in Pivotal since December 2019. 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 were 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.

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.

As the impact of the COVID-19 pandemic continues to evolve, estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require increased judgment. These estimates and assumptions may change in future periods and will be recognized in the consolidated financial statements as new events occur and additional information becomes known. To the extent the Company's actual results differ materially from those estimates and assumptions, VMware's future financial statements could be affected.

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 to the customer. 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.

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.

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 ratably 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 ratably 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.

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 as of January 29, 2021. As of January 31, 2020, the U.S. dollar was the functional currency for the majority of VMware's foreign subsidiaries, except for certain Pivotal foreign subsidiaries, many of which were wound down during fiscal 2021. 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. VMware records foreign currency translation adjustments in other comprehensive income (loss), and the losses recognized during the years ended January 29, 2021, January 31, 2020 and February 1, 2019 were 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 loss, 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 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.

Allowance for Credit Losses

VMware maintains an allowance for credit losses for estimated losses on uncollectible accounts receivable. VMware determines the allowance based on various factors such as historical experience, the age of the receivable and current economic conditions that may affect customers' ability to pay. The allowance for credit losses was not significant for all periods presented.

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	7 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, 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 acquisitions 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 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 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.

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 loss, 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 loss 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 29, 2021, January 31, 2020, and February 1, 2019, the Company contributed $176 million, $169 million and, $122 million, respectively, to its defined contribution plans.

Advertising

Advertising costs are expensed as incurred. Advertising expense was $33 million, $25 million and $33 million during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, 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 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 29, 2021 and January 31, 2020, one distributor accounted for 13% and 14%, respectively, of VMware’s accounts receivable balance, and a second distributor accounted for 12% and 11%, respectively, of VMware’s accounts receivable balance. Another distributor accounted for and 10% of VMware’s accounts receivable balance as of January 31, 2020.

One distributor accounted for 11%, 12% and 13% of revenue during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, respectively. Another distributor accounted for 10% and 12% of revenue during the years ended January 31, 2020 and February 1, 2019, respectively.

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.

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

VMware adopted ASU 2016-02, Leases ("Topic 842") during fiscal 2020 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.

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. Right-of-use ("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.

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.

Recently Adopted Accounting Standards

Effective February 1, 2020, VMware adopted Accounting Standards Update ("ASU") No. 2016-13, Financial Instruments-Credit Losses (Topic 326), which requires the measurement and recognition of current expected credit losses for financial assets. The standard did not have a material impact on the Company's consolidated financial statements.

New Accounting Pronouncement

In August 2020, the Financial Accounting Standards Board issued ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity, simplifying the accounting for convertible instruments and contracts in an entity's own equity and amending the diluted earnings per share guidance for greater consistency within the standard. With the exception of the impact to the Company's diluted net income per share, which is not expected to be material, the updated standard is not expected to have any other impact on the Company's financial statements. The updated standard is effective for interim and annual periods beginning after December 15, 2021, but may be early adopted. VMware plans to adopt this updated standard during the first quarter of fiscal 2022 on a modified retrospective basis.

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 potentially 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 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.

During the second quarter of fiscal 2021, VMware paid $91 million to dissenting stockholders of Pivotal, representing a portion of the amount accrued as of January 31, 2020.

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.

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 $43 million and $26 million as of January 29, 2021 and January 31, 2020, 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 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 29, 2021, customer deposits related to customer prepayments and cloud credits of $294 million were included in accrued expenses and other, and $163 million were included in other liabilities on the consolidated balance sheets. 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.

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 29, 2021 and January 31, 2020 were $31 million and $13 million, respectively. Deferred commissions included in other assets were $1.1 billion and $938 million as of January 29, 2021 and January 31, 2020, respectively.

Amortization expense for deferred commissions was included in sales and marketing on the consolidated statements of income and was $437 million, $354 million and $311 million, during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, respectively.

Unearned Revenue

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

	January 29, 2021	January 31, 2020
Unearned license revenue	$ 15	$ 19
Unearned subscription and SaaS revenue	1,998	1,534
Unearned software maintenance revenue	7,092	6,700
Unearned professional services revenue	1,209	1,015
Total unearned revenue	$ 10,314	$ 9,268

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.

Unearned software maintenance revenue is attributable to VMware’s maintenance contracts and is generally recognized ratably over the contract duration. The weighted-average remaining contractual term as of January 29, 2021 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 twelve months ended January 29, 2021 were $8.4 billion and $7.4 billion, respectively, and did not include amounts for performance obligations that were fully satisfied upon delivery, such as on-premises licenses. During the twelve months ended January 29, 2021, VMware also assumed $33 million in unearned revenue in connection with business combinations.

Total billings and revenue recognized during the twelve months 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-premises licenses. During the twelve months ended January 31, 2020, VMware also assumed $154 million in unearned revenue in connection with the acquisition of Carbon Black, Inc. (“Carbon Black”).

Revenue recognized during the year ended February 1, 2019 was $5.5 billion and did not include amounts for performance obligations that were fully satisfied upon delivery, such as on-premises 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.

As of January 29, 2021, the aggregate transaction price allocated to remaining performance obligations was $11.3 billion, of which approximately 55% is expected to be recognized as revenue over the next twelve months and the remainder thereafter. As of January 31, 2020, the aggregate transaction price allocated to remaining performance obligations was $10.3 billion, of which approximately 54% was expected to be recognized as revenue during fiscal 2021, and the remainder thereafter.

D. Related Parties

The information provided below includes a summary of transactions with Dell and Dell's consolidated subsidiaries (collectively, "Dell").

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 original equipment manufacturer ("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.

During the years ended January 29, 2021, January 31, 2020 and February 1, 2019, revenue from Dell accounted for 35%, 31% and 25% of VMware's consolidated revenue, respectively. During the years ended January 29, 2021, January 31, 2020 and February 1, 2019, revenue recognized on transactions where Dell acted as an OEM accounted for 12%, 12% and 13% of revenue from Dell, respectively, or 4%, 4% and 3% of VMware's consolidated revenue, respectively.

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 29, 2021	January 31, 2020	February 1, 2019	January 29, 2021	January 31, 2020
Reseller revenue	$ 4,053	$ 3,288	$ 2,355	$ 4,952	$ 3,787
Internal-use revenue	63	82	41	45	57
Collaborative technology project receipts	13	10	4	n/a	n/a

Customer deposits resulting from transactions with Dell were $214 million and $194 million as of January 29, 2021 and January 31, 2020, 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 United States ("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.
- From time to time, VMware 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 29, 2021	January 31, 2020	February 1, 2019
Purchases and leases of products and purchases of services[1]	$ 206	$ 242	$ 200
Dell subsidiary support and administrative costs	74	119	145

[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 that deliver 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 continue to 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.

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 $60 million, $66 million and $40 million during the years ended January 29, 2021, January 31, 2020, and February 1, 2019, 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 29, 2021	January 31, 2020
Due from related parties, current	$ 1,558	$ 1,618
Due to related parties, current[1]	120	161
Due from related parties, net, current	$ 1,438	$ 1,457

[1] Includes an immaterial amount related to the Company's current operating lease liabilities due to related parties.

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 sheets as of January 29, 2021 and January 31, 2020.

Amounts in due from related parties, net, excluding DFS and tax obligations, include 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

As of January 29, 2021 and January 31, 2020, VMware had an outstanding promissory note payable to Dell in the principal amount of $270 million due December 1, 2022. The note may be prepaid without penalty or premium. Interest is payable quarterly in arrears at the annual rate of 1.75%. During each of the years ended January 29, 2021, January 31, 2020 and February 1, 2019, interest expense on the notes payable to Dell was not significant.

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. Revenue recognized from sales to Ford while it was a related party was not significant during the year ended January 31, 2020 and was $12 million during the year ended 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. 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 March 5, 2020, two purported Pivotal stockholders filed a petition for appraisal in the Delaware Court of Chancery (the "Court") seeking a judicial determination of the fair value of an aggregate total of 10,000,100 Pivotal shares (the "Appraisal Action"). Separately, on June 4, 2020, purported Pivotal stockholder Kenia Lopez filed a lawsuit in the Court against Dell, VMware, Michael Dell, Robert Mee, and Cynthia Gaylor (the "Lopez Action"), which alleges breach of fiduciary duty and aiding and abetting, all tied to VMware's acquisition of Pivotal. On July 16, 2020, purported Pivotal stockholder Stephanie Howarth filed a similar lawsuit against the same defendants asserting similar claims (the "Howarth Action"). On August 14, 2020, the Court entered an order consolidating the Appraisal Action, the Lopez Action, and the Howarth Action into a single action (the "Consolidated Action") for all purposes including pretrial discovery and trial. The Court has not yet issued a scheduling order for the Consolidated Action, but the parties have moved forward with pretrial discovery. On June 23, 2020, the Company made a payment of $91 million to the petitioners in the Appraisal Action, which reduces the Company's exposure to accumulating interest. In addition, on September 23, 2020, the Company filed a motion to dismiss the claims asserted in the Lopez Action and the Howarth Action, for which briefing was completed. The hearing date for this motion to dismiss is April 1, 2021. 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 loss is not probable and reasonably estimable. The Company intends to vigorously defend itself in connection with this matter.

On April 25, 2019, Cirba Inc. and Cirba IP, Inc. (collectively, "Cirba") sued VMware in the United States District Court for the District of Delaware (the "Delaware Court") for allegedly infringing two patents and three trademarks ("First Action"). After an August 6, 2019 hearing, the Delaware Court denied Cirba's preliminary injunction motion. On August 20, 2019, VMware filed counterclaims against Cirba for infringing four VMware patents. The Delaware Court severed VMware's patent infringement counterclaims from Cirba's claims. On January 24, 2020, a jury returned a verdict that VMware had willfully infringed Cirba's two patents and awarded approximately $237 million in damages. As to Cirba's trademark-related claims, the jury found that VMware was not liable. A total of $237 million was accrued for the First Action as of January 31, 2020, which reflected the estimated losses that were considered both probable and reasonably estimable at that time. The amount accrued for this matter was included in accrued expenses and other on the consolidated balance sheet as of January 31, 2020 and the charge was included in general and administrative expense on the consolidated statement of income for the year ended January 31, 2020. On March 9, 2020, the parties filed post-trial motions in the First Action. On December 21, 2020, the Delaware Court granted VMware's request for a new trial based, in part, on Cirba Inc.'s lack of standing, set aside the verdict and damages award, and denied Cirba's post-trial motions (the "Post-Trial Order"). On October 22, 2019, VMware filed a separate lawsuit against Cirba Inc. in the United States District Court for the Eastern District of Virginia for infringing four additional VMware patents ("Second Action"). The Second Action was transferred to the Delaware Court on February 25, 2020. On March 23, 2020, Cirba filed a counterclaim against VMware in the Second Action alleging infringement of an additional Cirba patent. The Delaware Court consolidated the First and Second Actions and ordered a consolidated trial on all of the parties' patent infringement claims and counterclaims. The parties have proposed April 24, 2023 as the date for a consolidated trial. On January 20, 2021, Cirba moved to certify the Post-Trial Order to enable an interlocutory appeal to the United States Court of Appeals for the Federal Circuit. This motion has been fully briefed and is now pending before the Court. As of January 29, 2021, the Company reassessed its estimated loss accrual for the First Action based on the Post-Trial Order and determined that a loss is no longer probable and reasonably estimable with respect to the consolidated First and Second Actions. Accordingly, the estimated loss accrual of $237 million recorded on the consolidated balance sheet was derecognized, with the credit included in general and administrative expense on the consolidated income statement for the year ended January 29, 2021. 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. 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 29, 2021, 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.

Contractual Commitments

VMware's minimum contractual commitments as of January 29, 2021 were as follows (table in millions):

	Purchase Obligations	Asset Retirement Obligations	Total
2022	$ 391	$ 3	$ 394
2023	294	2	296
2024	331	1	332
2025	1	3	4
2026	—	9	9
Thereafter	—	5	5
Total	$ 1,017	$ 23	$ 1,040

VMware's contractual commitments also include leased office facilities and equipment under various lease arrangements. Refer to Note N for more information on VMware's lease commitments.

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 2021

Acquisition of SaltStack, Inc.

During the third quarter of fiscal 2021, VMware completed the acquisition of SaltStack, Inc., a developer of intelligent, event-driven automation software, to broaden VMware's Cloud Management capabilities from infrastructure to applications. The total purchase price, net of cash acquired, was $51 million. The purchase price primarily included $29 million of identifiable intangible assets and $24 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets, which primarily consisted of completed technology, have estimated useful lives of three years.

Acquisition of Datrium, Inc.

During the second quarter of fiscal 2021, VMware completed the acquisition of Datrium, Inc., a provider of cloud-native disaster recovery solutions, to broaden the VMware Site Recovery Disaster Recovery as a Service offerings. The total purchase price, net of cash acquired, was $137 million. The purchase price primarily included $25 million of identifiable intangible assets and $91 million of goodwill. The identifiable intangible assets, which primarily consisted of completed technology, have estimated useful lives of three years to five years. During the fourth quarter of fiscal 2021, the Company evaluated facts and circumstances that existed as of the acquisition date and adjusted the provisional amount recorded to deferred tax asset, resulting in an increase of $40 million to goodwill, and determined that intangible assets and goodwill are expected to be deductible for tax purposes.

Acquisition of Lastline, Inc.

During the second quarter of fiscal 2021, VMware completed the acquisition of Lastline, Inc., a provider of network-based security breach detection products and services, to enhance capabilities for network detection and threat analysis on VMware NSX and SD-WAN offerings. The total purchase price, net of cash acquired, was $114 million. The purchase price primarily included $29 million of identifiable intangible assets and $86 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets, which primarily consisted of completed technology, have estimated useful lives of one year to four years.

Acquisition of Nyansa, Inc.

During the first quarter of fiscal 2021, VMware completed the acquisition of Nyansa, Inc., a developer of artificial intelligence-based network analytics, to accelerate the delivery of end-to-end monitoring and troubleshooting capacities within VMware SD-WAN by VeloCloud. The total purchase price, net of cash acquired, was $38 million. The purchase price primarily included $14 million of identifiable intangible assets and $24 million of goodwill that is not expected to be deductible for tax purposes. The identifiable intangible assets, which primarily consisted of completed technology, have estimated useful lives of one year to four years.

Other Fiscal 2021 Acquisitions

During the year ended January 29, 2021, VMware completed five other acquisitions, which were not material, individually or in aggregate, to the consolidated financial statements. VMware expects these acquisitions to primarily enhance its product features and capabilities for its VMware Carbon Black Cloud and vRealize Operations offerings. The aggregate purchase price for these five acquisitions, net of cash acquired, was $62 million and primarily included $52 million of identifiable intangible assets and $16 million of goodwill, the majority of which is expected to be deductible for tax purposes. The identifiable intangible assets, which primarily consisted of completed technology, have estimated useful lives of one year to five years.

For each of the acquisitions completed during fiscal 2021, the excess of the purchase consideration over the fair value of net tangible and identifiable intangible assets acquired was recorded as goodwill, which management believes represents synergies expected from combining the technologies of VMware with those of the acquired businesses. 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. VMware expects to finalize the allocation of the purchase price within the measurement period.

The pro forma financial information assuming these fiscal 2021 acquisitions had occurred as of the beginning of the fiscal year prior to the fiscal year of acquisition, as well as the revenue and earnings generated during the current fiscal year, were not material for disclosure purposes.

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

During the third quarter of fiscal 2020, 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 purchase price was $2.0 billion, net of cash acquired of $111 million.

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 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. Goodwill and identifiable intangible assets were not 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 was not 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.

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.

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 was not 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 was not 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. 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 each of the years ended January 29, 2021 and January 31, 2020 was $33 million, and was not material during the year ended February 1, 2019.

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 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.

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 29, 2021	January 31, 2020
Balance, beginning of the year	$ 1,172	$ 966
Additions to intangible assets related to business combinations	149	622
Amortization expense	(328)	(300)
Derecognized leasehold interest	—	(116)
Balance, end of the year	$ 993	$ 1,172

Upon adoption of Topic 842 in fiscal 2020, 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.

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

	January 29, 2021			
	Weighted-Average Useful Lives (in years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	5.3	$ 948	$ (462)	$ 486
Customer relationships and customer lists	11.4	727	(281)	446
Trademarks and tradenames	7.6	132	(78)	54
Other	2.0	21	(14)	7
Total definite-lived intangible assets		$ 1,828	$ (835)	$ 993

	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		$ 1,922	$ (750)	$ 1,172

Amortization expense on definite-lived intangible assets was $328 million, $300 million and $247 million during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, respectively.

Based on intangible assets recorded as of January 29, 2021 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):

2022	$ 300
2023	249
2024	197
2025	104
2026	64
Thereafter	79
Total	$ 993

Goodwill

The following table summarizes the changes in the carrying amount of goodwill during the year ended January 29, 2021 (table in millions):

	January 29, 2021	January 31, 2020
Balance, beginning of the year	$ 9,329	$ 7,418
Increase in goodwill due to business combinations and related adjustments	270	1,911
Balance, end of the year	$ 9,599	$ 9,329

G. Realignment

During the third quarter of fiscal 2021, VMware approved a plan to streamline its operations and better align resources with its business priorities. As a result of this action, approximately 280 positions were eliminated during the year ended January 29, 2021. VMware recognized $42 million of severance-related realignment expenses during the year ended January 29, 2021 on the consolidated statements of income. Actions associated with this plan were substantially complete by the end of fiscal 2021.

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 were completed during fiscal 2021.

The following tables summarize the activity for the accrued realignment expenses for the years ended January 29, 2021 and January 31, 2020 (table in millions):

	For the Year Ended January 29, 2021			
	Balance as of January 31, 2020	Realignment Expense	Utilization	Balance as of January 29, 2021
Severance-related costs	$ 74	$ 42	$ (113)	$ 3

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

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 performance stock unit ("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 29, 2021	January 31, 2020	February 1, 2019
Net income attributable to VMware, Inc.	$ 2,058	$ 6,412	$ 1,650
Weighted-average shares, basic for Classes A and B	419,841	417,058	413,769
Effect of other dilutive securities	3,399	8,177	7,362
Weighted-average shares, diluted for Classes A and B	423,240	425,235	421,131
Net income per weighted-average share attributable to VMware, Inc. common stockholders, basic for Classes A and B	$ 4.90	$ 15.37	$ 3.99
Net income per weighted-average share attributable to VMware, Inc. common stockholders, diluted for Classes A and B	$ 4.86	$ 15.08	$ 3.92

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 29, 2021	January 31, 2020	February 1, 2019
Anti-dilutive securities:			
Employee stock options	150	34	50
Restricted stock units	5,038	315	255
Total	5,188	349	305

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

Cash and Cash Equivalents

Cash and cash equivalents totaled $4.7 billion and $2.9 billion as of January 29, 2021 and January 31, 2020, respectively. Cash equivalents were $3.8 billion as of January 29, 2021 and consisted of money-market funds of $3.7 billion and time deposits of $102 million. Cash equivalents were $2.3 billion as of January 31, 2020 and consisted of money-market funds of $2.2 billion and time deposits of $102 million.

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 29, 2021 and January 31, 2020 (table in millions):

	January 29, 2021	January 31, 2020
Cash and cash equivalents	$ 4,692	$ 2,915
Restricted cash within other current assets	56	83
Restricted cash within other assets	22	33
Total cash, cash equivalents and restricted cash	$ 4,770	$ 3,031

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.

Short-Term Investments

Short-term investments totaled $23 million as of January 29, 2021 and consisted of marketable equity securities that were previously subject to a certain sale restriction and therefore were classified as other assets as of January 31, 2020. The unrealized loss on short-term investments was not material during the year ended January 29, 2021. Refer to Note K for more information regarding the Company’s marketable equity securities.

J. Debt

Unsecured Senior Notes

On April 7, 2020, VMware issued three series of unsecured senior notes pursuant to a public debt offering. The proceeds from the issuance were $2.0 billion, net of debt discount of $3 million and debt issuance costs of $17 million. VMware also has three series of unsecured senior notes issued on August 21, 2017 (collectively with the notes issued April 7, 2020, the “Senior Notes”).

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

	January 29, 2021	January 31, 2020	Effective Interest Rate
Senior Notes issued August 21, 2017:			
2.30% Senior Note Due August 21, 2020	$ —	$ 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%
Senior Notes issued April 7, 2020:			
4.50% Senior Note Due May 15, 2025	750	—	4.70%
4.65% Senior Note Due May 15, 2027	500	—	4.80%
4.70% Senior Note Due May 15, 2030	750	—	4.86%
Total principal amount	4,750	4,000	
Less: unamortized discount	(7)	(5)	
Less: unamortized debt issuance costs	(26)	(16)	
Net carrying amount	4,717	3,979	
Current portion of long-term debt	—	1,248	
Long-term debt	$ 4,717	$ 2,731	

On May 11, 2020, VMware exercised a make-whole call and redeemed the $1.3 billion unsecured senior note due August 21, 2020 at a premium. The loss on extinguishment of debt was not material during the year ended January 29, 2021 and was recognized in other income (expense), net on the consolidated statements of income.

Interest on the Senior Notes issued on April 7, 2020 is payable semiannually in arrears, on May 15 and November 15 of each year, beginning November 15, 2020. The interest rate on each note issued on April 7, 2020 is subject to adjustment based on certain rating events. Interest on the Senior Notes issued on August 21, 2017 is payable semiannually in arrears, on February 21 and August 21 of each year. Interest expense was $183 million, $129 million and $129 million during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, 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 repurchase. The Senior Notes rank equally in right of payment with VMware's other unsecured and unsubordinated indebtedness. The Senior Notes contain 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 Facility

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 29, 2021 and January 31, 2020, there was no outstanding borrowing 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 each of the years ended January 29, 2021, January 31, 2020 and February 1, 2019.

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 year ended February 1, 2019, $15 million was 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 provided the Company with a borrowing capacity of up to $2.0 billion through February 7, 2020 for general corporate purposes. 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. During the third quarter of fiscal 2021, VMware repaid the outstanding balance of $1.5 billion on the Term Loan.

The Term Loan contained 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 $17 million and $15 million during the years ended January 29, 2021 and January 31, 2020, respectively.

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 inputs that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not 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.

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 that were required to be measured at fair value as of the periods presented (tables in millions):

	January 29, 2021		
	Level 1	Level 2	Total
Cash equivalents:			
Money-market funds	$ 3,738	$ —	$ 3,738
Time deposits[(1)]	—	102	102
Total cash equivalents	$ 3,738	$ 102	$ 3,840
Short-term investments:			
Marketable equity securities	$ 23	$ —	$ 23
Total short-term investments	$ 23	$ —	$ 23

	January 31, 2020		
	Level 1	Level 2	Total
Cash equivalents:			
Money-market funds	$ 2,158	$ —	$ 2,158
Time deposits[(1)]	—	102	102
Total cash equivalents	$ 2,158	$ 102	$ 2,260

[(1)] Time deposits were valued at amortized cost, which approximated fair value.

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 $276 million and $269 million as of January 29, 2021 and January 31, 2020, respectively. The fair value of the Senior Notes was approximately $5.3 billion and $4.1 billion as of January 29, 2021 and January 31, 2020, 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. There is no net impact to the consolidated statements of income since changes in the fair value of the assets 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 $140 million and $106 million as of January 29, 2021 and January 31, 2020, respectively, and were included in other assets and other liabilities on the consolidated balance sheets, respectively.

Equity Securities With a Readily Determinable Fair Value

VMware's equity securities include an investment in a company that completed its initial public offering during the third quarter of fiscal 2021. As of January 29, 2021, this investment had a fair value of $162 million, of which $139 million was included in other assets due to a certain sale restriction and $23 million was included in short-term investments as they were unrestricted and available for sale.

During the year ended January 29, 2021, VMware sold $26 million of its marketable equity securities, and the realized loss on the sale was not material. VMware also recognized an unrealized gain of $163 million during the year ended January 29, 2021, to adjust the remaining investment to its fair value using quoted prices for identical assets in an active market (Level 1). As of January 31, 2020, this investment had a carrying value of $25 million and was included in other assets on the consolidated balance sheet. The unrealized gain recognized during the year ended January 31, 2020 was $21 million. All gains and losses on these securities, whether realized or unrealized, are recognized in other income (expense), net on the consolidated statements of income.

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 29, 2021 and January 31, 2020, investments in privately held companies, which consisted primarily of equity securities, had a carrying value of $129 million and $134 million, respectively, and were included in other assets on the consolidated balance sheets. During the years ended January 29, 2021 and February 1, 2019, VMware recognized unrealized losses of $14 million and $13 million respectively, on these securities. During the year ended January 31, 2020, VMware recognized an unrealized gain of $16 million 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 and by monitoring credit ratings, credit spreads 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 29, 2021, January 31, 2020 and February 1, 2019, the effective portion of gains or losses reclassified to the consolidated statements of income was not significant. Interest charges or forward points on VMware's forward contracts were excluded from the assessment of hedge effectiveness and were recorded to the related operating expense line item on the consolidated statements of income in the same period that the interest charges are incurred.

These forward contracts have contractual maturities of twelve months or less, and as of January 29, 2021 and January 31, 2020, outstanding forward contracts had a total notional value of $486 million and $480 million, respectively. The notional value represents the gross amount of foreign currency that will be bought or sold upon maturity of the forward contract. The fair value of these forward contracts was not significant as of January 29, 2021 and January 31, 2020.

During the years ended January 29, 2021, January 31, 2020 and February 1, 2019, all cash flow hedges were considered effective.

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 29, 2021 and January 31, 2020, outstanding forward contracts had a total notional value of $1.2 billion and $1.1 billion, respectively. The notional value represents the gross amount of foreign currency that will be bought or sold upon maturity of the forward contract. The fair value of these forward contracts was not significant as of January 29, 2021 and January 31, 2020.

VMware recognized a loss of $63 million during the year ended January 29, 2021, and gains of $54 million and $69 million during the years ended January 31, 2020 and February 1, 2019, respectively, 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 years ended January 29, 2021 and January 31, 2020 resulted in net gains of $31 million and $31 million, respectively. 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 year ended February 1, 2019. 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 29, 2021	January 31, 2020
Equipment and software	$ 1,620	$ 1,404
Buildings and improvements	1,137	1,088
Furniture and fixtures	132	120
Construction in progress	82	106
Total property and equipment	2,971	2,718
Accumulated depreciation	(1,637)	(1,438)
Total property and equipment, net	$ 1,334	$ 1,280

As of January 29, 2021 and January 31, 2020, construction in progress primarily represented various buildings and site improvements that had not yet been placed into service.

Depreciation expense was $253 million, $234 million and $211 million during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, 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 25 years. Lease expense recorded in the consolidated statements of income was $230 million and $206 million during the years ended January 29, 2021 and January 31, 2020, respectively.

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

	Twelve Months Ended	
	January 29, 2021	January 31, 2020
Operating lease expense	$ 190	$ 167
Finance lease expense:		
Amortization of ROU assets	$ 6	$ 4
Interest on lease liabilities	2	1
Total finance lease expense	$ 8	$ 5
Short-term lease expense	$ 3	$ 3
Variable lease expense	$ 29	$ 31
Total lease expense	$ 230	$ 206

From time to time, VMware enters into lease arrangements with Dell. Lease expense incurred for arrangements with Dell was not significant during the periods presented.

The Company subleases certain leased office space to third parties when it determines there is excess leased capacity. Sublease income was $20 million and $22 million during the years ended January 29, 2021 and January 31, 2020, respectively.

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

	Twelve Months Ended	
	January 29, 2021	January 31, 2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 174	$ 167
Operating cash flows from finance leases	1	2
Financing cash flows from finance leases	4	1
ROU assets obtained in exchange for lease liabilities:		
Operating leases	$ 275	$ 226
Finance leases	1	63

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

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

	January 29, 2021	
	Operating Leases	Finance Leases
ROU assets, non-current[1]	$ 997	$ 53
Lease liabilities, current[2]	$ 109	$ 5
Lease liabilities, non-current[3]	891	50
Total lease liabilities	$ 1,000	$ 55

	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] Non-current operating lease liabilities are presented as operating lease liabilities on the consolidated balance sheets. Non-current finance lease liabilities are included in other liabilities on the consolidated balance sheets.

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

	January 29, 2021	January 31, 2020
Weighted-average remaining lease term (in years)		
Operating leases	12.6	13.3
Finance leases	8.3	9.2
Weighted-average discount rate		
Operating leases	3.5 %	3.8 %
Finance leases	2.9 %	3.1 %

The following represents VMware's future minimum lease payments under non-cancellable operating and finance leases as of the period presented (table in millions):

	January 29, 2021	
	Operating Leases	Finance Leases
2022	$ 141	$ 6
2023	166	7
2024	135	7
2025	105	6
2026	88	8
Thereafter	651	27
Total future minimum lease payments	1,286	61
Less: Imputed interest	(286)	(6)
Total lease liabilities[1]	$ 1,000	$ 55

[1] Total lease liabilities as of January 29, 2021 excluded legally binding lease payments for leases signed but not yet commenced of $72 million.

The amount of the future operating lease commitments after fiscal 2026 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 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.

O. Accrued Expenses and Other

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

	January 29, 2021	January 31, 2020
Accrued employee related expenses	$ 1,266	$ 845
Accrued partner liabilities	218	181
Customer deposits	294	247
Other[1]	604	878
Total	$ 2,382	$ 2,151

[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 29, 2021	January 31, 2020	February 1, 2019
Domestic	$ 932	$ 895	$ 680
Foreign	1,450	543	1,149
Total income before income tax	$ 2,382	$ 1,438	$ 1,829

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

	For the Year Ended		
	January 29, 2021	January 31, 2020	February 1, 2019
Federal:			
Current	$ 157	$ 78	$ 181
Deferred	(19)	(219)	(92)
	138	(141)	89
State:			
Current	73	45	31
Deferred	(14)	(44)	(10)
	59	1	21
Foreign:			
Current	246	240	137
Deferred	(119)	(5,018)	(8)
	127	(4,778)	129
Total income tax provision (benefit)	$ 324	$ (4,918)	$ 239

Provision for income taxes increased during the year ended January 29, 2021, primarily driven by a decrease in discrete tax benefits related to intra-group transfers of certain of the Company's intellectual property rights. The increase was also driven by a decrease in excess tax benefits recognized, which were $41 million during the year ended January 29, 2021 compared to $182 million during the year ended January 31, 2020.

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 changed 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.

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 29, 2021	January 31, 2020	February 1, 2019
Statutory federal tax rate	21 %	21 %	21 %
State taxes, net of federal benefit	2 %	— %	1 %
Tax rate differential for non-U.S. jurisdictions	(8) %	(3) %	(6) %
U.S. tax credits	(10) %	(17) %	(11) %
Excess tax benefits from stock-based compensation	(1) %	(11) %	(6) %
Discrete tax benefit due to IP Transfer[(1)]	(2) %	(343) %	— %
Permanent items	12 %	9 %	14 %
Effective tax rate	14 %	(344) %	13 %

[(1)] A discrete tax benefit of $59 million was recognized with a deferred tax asset during the year ended January 29, 2021. This deferred tax asset was recognized as a result of intra-group transfer of Pivotal’s IP rights to an Irish subsidiary. A discrete tax benefit of $4.9 billion was recognized with a deferred tax asset during the year ended January 31, 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.

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 29, 2021	January 31, 2020
Deferred tax assets:		
Accruals and other	$ 238	$ 169
Lease liabilities	167	152
Unearned revenue	501	390
Stock-based compensation	86	88
Tax credit and net operating loss carryforwards	553	583
Other assets, net	54	51
Intangible and other non-current assets	4,900	4,804
Gross deferred tax assets	6,499	6,237
Valuation allowance	(366)	(332)
Total deferred tax assets	6,133	5,905
Deferred tax liabilities:		
Deferred commissions	(158)	(133)
ROU Assets	(145)	(131)
Property, plant and equipment, net	(109)	(101)
Total deferred tax liabilities	(412)	(365)
Net deferred tax assets	$ 5,721	$ 5,540

Net deferred tax assets were comprised of deferred tax assets of $5.8 billion and $5.6 billion as of January 29, 2021 and January 31, 2020, respectively, partially offset by deferred tax liabilities of $60 million and $16 million as of January 29, 2021 and January 31, 2020, 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 January 31, 2020 to January 29, 2021 was primarily driven by the increase in unearned revenue, as well as the $59 million deferred tax asset recognized as a result of the intra-group transfer of Pivotal’s intellectual property rights to VMware’s Irish subsidiary. The increase in net deferred tax liabilities from January 31, 2020 to

January 29, 2021 was primarily driven by the book and tax basis difference on one of VMware's investments in equity securities that completed its initial public offering during the third quarter of fiscal 2021 of $52 million.

VMware had federal, state and foreign net operating loss carryforwards of $655 million, $714 million and $191 million, as of January 29, 2021, respectively. VMware had federal, state and foreign net operating loss carryforwards of $971 million, $940 million and $199 million as of January 31, 2020, respectively. The federal and state net operating loss carryforwards will start to expire in fiscal 2024 and fiscal 2022, respectively, if not utilized. These net operating losses have various carryforward periods, including certain portions that can be carried forward indefinitely. The majority of the Company's foreign net operating loss carryforwards can be carried forward indefinitely.

VMware had federal research and development ("R&D") tax credit carryforwards of $46 million and $34 million as of January 29, 2021 and January 31, 2020, respectively. The federal R&D tax credit will start to expire in fiscal 2026, if not utilized. VMware also had California and other state R&D credit carryforwards for income tax purposes of $323 million and $287 million as of January 29, 2021 and January 31, 2020, respectively. The California R&D tax credit carryforwards can be carried forward indefinitely and the other state R&D tax credit carryforwards will start to expire in fiscal 2022, if not utilized. In addition, the amount of foreign tax credit carryforwards held as of January 29, 2021 and January 31, 2020 was not significant. VMware also had non-U.S. capital loss carryforwards of approximately $22 million for both periods as of January 29, 2021 and January 31, 2020, which can be carried forward indefinitely.

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. Accordingly, a valuation allowance of $366 million and $332 million was recorded as of January 29, 2021 and January 31, 2020, 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 29, 2021 and January 31, 2020, 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 29, 2021, the total change in the valuation allowance was $34 million, which was primarily due to California R&D credits generated in the current year, partially offset by the California R&D credits 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 subsidiary 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 29, 2021, 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 an amended tax sharing agreement with Dell in connection with, and effective as of, the Pivotal acquisition. The tax sharing agreement with Dell, as amended and 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 29, 2021	January 31, 2020	February 1, 2019
Payments from VMware to Dell, net	$ 307	$ 159	$ 243

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 was recorded as a decrease in additional paid-in capital of $46 million during the year ended January 29, 2021. 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 was recorded as an increase in additional paid-in capital of $85 million during the year ended January 31, 2020, 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 year ended February 1, 2019 was not significant.

As a result of the activity under the tax sharing agreement with Dell, amounts due to Dell was $451 million and $529 million as of January 29, 2021 and January 31, 2020, 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 five years.

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. Pivotal continues to be included on Dell's unitary state tax returns. Pursuant to a tax sharing agreement, Pivotal historically received payments from Dell for tax benefits that Dell realized due to Pivotal's inclusion on such returns. Payments received from Dell were recognized as a component of additional paid-in capital. During the years ended January 31, 2020 and February 1, 2019, $25 million and $15 million, respectively, was recognized in additional paid-in capital related to Pivotal's tax sharing agreement with Dell.

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 year ended February 1, 2019, payment received from Dell pursuant to the tax sharing agreement was $44 million.

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 29, 2021	January 31, 2020	February 1, 2019
Balance, beginning of the year	$ 479	$ 385	$ 305
Tax positions related to current year:			
Additions	65	116	57
Tax positions related to prior years:			
Additions	12	98	44
Reductions	(25)	(7)	(1)
Settlements	(14)	(28)	(4)
Reductions resulting from a lapse of the statute of limitations	(14)	(83)	(8)
Foreign currency effects	5	(2)	(8)
Balance, end of the year	$ 508	$ 479	$ 385

Of the net unrecognized tax benefits, including interest and penalties, $352 million and $323 million were included in income tax payable on the consolidated balance sheets as of January 29, 2021 and January 31, 2020, respectively. Approximately $341 million and $313 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 of interest and penalties associated with unrecognized tax benefits for both periods as of January 29, 2021 and January 31, 2020. Interest and penalties associated with uncertain tax positions included in income tax expense (benefit) were not significant during the years ended January 29, 2021 and January 31, 2020 and were $15 million during the year ended February 1, 2019.

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 fiscal 2016 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 taxing authorities, it is reasonably possible that total unrecognized tax benefits could be potentially reduced by approximately $14 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 29, 2021, 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 29, 2021, 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 12.1 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 29, 2021, there was an aggregate of 17.9 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 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 may 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 29, 2021, January 31, 2020 and February 1, 2019 (amounts in table in millions):

Announcement Date	Amount Authorized	Expiration Date	Status
July 15, 2020	$1,000	January 28, 2022	Open
May 29, 2019	1,500	January 28, 2022[1]	Open
August 14, 2017	1,000	August 31, 2019	Completed in fiscal 2020

[1] During July 2020, VMware’s board of directors extended authorization of the existing stock repurchase program through January 28, 2022.

In the aggregate, $1.1 billion remained available for repurchase as of January 29, 2021.

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

	For the Year Ended		
	January 29, 2021	January 31, 2020	February 1, 2019
Aggregate purchase price[1]	$ 945	$ 1,334	$ 42
Class A common stock repurchased	6,944	7,664	286
Weighted-average price per share	$ 136.13	$ 174.02	$ 148.07

[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 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 granted to certain VMware executives and employees. PSU awards have 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.

The following table summarizes restricted stock activity since February 2, 2018 (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 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	—	—
Granted	11,201	149.63	n/a	n/a
Vested	(8,296)	114.59	n/a	n/a
Forfeited	(2,588)	137.55	n/a	n/a
Outstanding, January 29, 2021	17,790	147.46	n/a	n/a

[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 29, 2021, the 17.8 million units outstanding included 17.2 million of RSUs and 0.6 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 29, 2021 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	15,214	2.64	$ 2,097

[1] The aggregate intrinsic value represents the total pre-tax intrinsic values based on VMware's closing stock price of $137.85 as of January 29, 2021, which would have been received by the RSU holders had the RSUs been issued as of January 29, 2021.

The aggregate vesting date fair value of VMware’s restricted stock that vested during the years ended January 29, 2021, January 31, 2020 and February 1, 2019, was $1.1 billion, $1.4 billion and $1.1 billion respectively. As of January 29, 2021, restricted stock representing 17.8 million shares of VMware’s Class A common stock were outstanding, with an aggregate intrinsic value of $2.5 billion based on VMware’s closing stock price as of January 29, 2021.

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 year ended February 1, 2019.

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 29, 2021, the number of authorized shares under the ESPP was 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 participant is granted a new twelve-month option. As of January 29, 2021, 12.3 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 29, 2021	January 31, 2020	February 1, 2019
Cash proceeds	$ 207	$ 172	$ 161
Class A common stock purchased	2,025	1,489	1,895
Weighted-average price per share	$ 102.44	$ 115.51	$ 84.95

As of January 29, 2021, $107 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 28, 2021.

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 and Pivotal Stock Options

The following table summarizes stock option activity for VMware and Pivotal since February 2, 2018 (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 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	—	—
Granted	31	43.20	n/a	n/a
Forfeited	(156)	70.75	n/a	n/a
Exercised	(1,247)	52.34	n/a	n/a
Outstanding, January 29, 2021	1,243	58.68	n/a	n/a

(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 29, 2021 had an aggregate intrinsic value of $98 million based on VMware's closing stock price as of January 29, 2021.

Options outstanding that are exercisable and that have vested and are expected to vest as of January 29, 2021 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	769	$ 54.72	5.12	$ 64
Vested and expected to vest	1,228	58.26	5.89	98

(1) The aggregate intrinsic values represent the total pre-tax intrinsic values based on VMware's closing stock price of $137.85 as of January 29, 2021, 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 29, 2021, January 31, 2020 and February 1, 2019 was $92 million, $64 million and $35 million, respectively. Total fair value of Pivotal stock options that vested during the years ended January 31, 2020 and February 1, 2019 was $27 million and $41 million, respectively.

The VMware stock options exercised during the years ended January 29, 2021, January 31, 2020 and February 1, 2019 had a pre-tax intrinsic value of $111 million, $103 million and $56 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. 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 29, 2021, January 31, 2020 and February 1, 2019, VMware repurchased 3.0 million, 3.0 million and 2.6 million, respectively, of Class A common stock, for $413 million, $521 million and $373 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 benefit on the consolidated statements of income. Net excess tax benefits recognized during the years ended January 29, 2021, January 31, 2020 and February 1, 2019 were $41 million, $182 million and $116 million, respectively.

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 29, 2021	January 31, 2020	February 1, 2019
Cost of license revenue	$ 1	$ 1	$ 1
Cost of subscription and SaaS revenue	19	13	7
Cost of services revenue	99	83	58
Research and development	524	459	391
Sales and marketing	322	293	226
General and administrative	157	168	117
Stock-based compensation	1,122	1,017	800
Income tax benefit	(231)	(347)	(253)
Total stock-based compensation, net of tax	$ 891	$ 670	$ 547

As of January 29, 2021, the total unrecognized compensation cost for stock options and restricted stock was $1.9 billion and will be recognized through fiscal 2025 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		
VMware Stock Options	January 29, 2021	January 31, 2020	February 1, 2019
Dividend yield	None	None	None
Expected volatility	38.8 %	34.0 %	31.9 %
Risk-free interest rate	0.4 %	1.5 %	2.9 %
Expected term (in years)	2.6	2.7	3.2
Weighted-average fair value at grant date	$ 102.55	$ 98.00	$ 143.01
Pivotal Stock Options			
Dividend yield	n/a	n/a	None
Expected volatility	n/a	n/a	33.4 %
Risk-free interest rate	n/a	n/a	2.8 %
Expected term (in years)	n/a	n/a	6.08
Weighted-average fair value at grant date	n/a	n/a	$ 5.23
VMware Employee Stock Purchase Plan			
Dividend yield	None	None	None
Expected volatility	36.1 %	27.4 %	33.5 %
Risk-free interest rate	1.0 %	1.7 %	2.0 %
Expected term (in years)	0.7	0.6	0.8
Weighted-average fair value at grant date	$ 33.60	$ 35.66	$ 34.72

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 volatility 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.

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 Forward Contracts	Foreign Currency Translation Adjustments	Total
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 (losses), net of tax provision (benefit) of $—, $— and $—	(1)	—	(1)
Other comprehensive income (loss), net	(1)	—	(1)
Balance, January 29, 2021	$ (1)	$ (4)	$ (5)

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 the 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 order to allocate resources and assess performance. VMware's chief operating decision maker allocates resources and assesses performance based upon discrete financial information at the consolidated level.

Revenue by type during the periods presented was as follows (table in millions):

	For the Year Ended		
	January 29, 2021	January 31, 2020	February 1, 2019
Revenue:			
License	$ 3,033	$ 3,181	$ 3,042
Subscription and SaaS	2,587	1,877	1,303
Total license and subscription and SaaS	5,620	5,058	4,345
Services:			
Software maintenance	5,105	4,754	4,351
Professional services	1,042	999	917
Total services	6,147	5,753	5,268
Total revenue	$ 11,767	$ 10,811	$ 9,613

Revenue by geographic area during the periods presented was as follows (table in millions):

	For the Year Ended		
	January 29, 2021	January 31, 2020	February 1, 2019
United States	$ 5,878	$ 5,405	$ 4,696
International	5,889	5,406	4,917
Total	$ 11,767	$ 10,811	$ 9,613

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 each of the years ended January 29, 2021, January 31, 2020 and February 1, 2019.

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 29, 2021	January 31, 2020
United States	$ 864	$ 860
International	241	209
Total	$ 1,105	$ 1,069

As of January 29, 2021, the U.S. and India accounted for 80% and 10% of these assets, respectively. No individual country other than the U.S. accounted for 10% or more of these assets as of January 31, 2020.

VMware's product and service solutions are helping customers in the following areas:

- Multi-Cloud
- Virtual Cloud Network
- Digital Workspace
- Application Modernization
- Intrinsic Security

VMware develops and markets product and service offerings within each of these areas. Additionally, synergies are leveraged across these areas. VMware's products and services from each area may also be bundled as part of an enterprise agreement arrangement or packaged together and sold as a solution. Accordingly, it is not practicable to determine revenue by each of the areas described above.

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 29, 2021 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 29, 2021, 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. The effectiveness of our internal control over financial reporting as of January 29, 2021 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 29, 2021 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 29, 2021. 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 our 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 our 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 our 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 our Proxy Statement entitled "Ratification of Selection of Independent Auditor."

PART IV

ITEM 15. EXHIBITS AND 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.

		Incorporated by Reference			
Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date
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	Fourth Supplemental Indenture, by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated April 7, 2020	8-K	001-33622	4.2	4/7/20
4.7	Fifth Supplemental Indenture, by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated April 7, 2020	8-K	001-33622	4.3	4/7/20
4.8	Sixth Supplemental Indenture, by and between VMware and The Bank of New York Mellon Trust Company, N.A., as trustee, dated April 7, 2020	8-K	001-33622	4.4	4/7/20
4.9*	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 December 10, 2020				
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

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
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
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 December 10, 2020				
10.12+	Executive Bonus Program, as amended and restated April 16, 2018	10-Q	001-33622	10.12	6/11/18
10.13	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
10.14	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
10.15*+	Form of Performance Stock Unit Agreement, as amended December 10, 2020				
10.16+	Non-Qualified Deferred Compensation Plan, effective as of January 1, 2014	10-K	001-33622	10.26	2/25/14
10.17+	Non-Qualified Deferred Compensation Plan Adoption Agreement, amended and restated as of January 1, 2020	10-K	001-33622	10.18	3/26/20
10.18	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
10.19	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
10.20+	Change in Control Retention Plan, as amended and restated September 14, 2018	10-Q	001-33622	10.22	12/10/18
10.21	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
10.22+	Executive Severance Plan, adopted September 14, 2018	8-K	001-33622	99.1	9/18/18
10.23	Waiver dated as of November 14, 2018, by and between VMware, Inc. and Dell Technologies Inc.	8-K	001-33622	10.1	11/15/18
10.24	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
21*	List of subsidiaries				
23*	Consent of PricewaterhouseCoopers LLP				
24	Power of Attorney (included on the signature page hereto)				
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				
32.1ǂ	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				

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
32.2ǂ	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

ǂ 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, 2021	By:	/s/ Zane Rowe
		Zane Rowe **Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President**
Dated: March 26, 2021	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 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.

Date	Signature	Title
March 26, 2021	/s/ Zane Rowe **Zane Rowe**	Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President *(Principal Financial Officer and Principal Executive Officer)*
March 26, 2021	/s/ Michael Dell **Michael Dell**	Chairman
March 26, 2021	/s/ Anthony Bates **Anthony Bates**	Director
March 26, 2021	/s/ Marianne Brown **Marianne Brown**	Director
March 26, 2021	/s/ Michael Brown **Michael Brown**	Director
March 26, 2021	/s/ Donald Carty **Donald Carty**	Director
March 26, 2021	/s/ Kenneth Denman **Kenneth Denman**	Director
March 26, 2021	/s/ Egon Durban **Egon Durban**	Director
March 26, 2021	/s/ Karen Dykstra **Karen Dykstra**	Director
March 26, 2021	/s/ Patrick Gelsinger **Patrick Gelsinger**	Director
March 26, 2021	/s/ Paul Sagan **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 29, 2021 income tax valuation allowance	$ 332	$ 58	$ (1)	$ (23)	$ 366
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

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 29, 2021, 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 29, 2021.

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.

Exhibit 10.6
Amended and Restated December 10, 2020

VMWARE, INC.

AMENDED AND RESTATED 2007 EQUITY AND INCENTIVE PLAN

1. **PURPOSE; TYPES OF AWARDS; CONSTRUCTION.**

The purpose of the VMware, Inc. Amended and Restated 2007 Equity and Incentive Plan is to attract, motivate and retain employees and independent contractors of the Company and any Subsidiary and Affiliate and non-employee directors of the Company, any Subsidiary or any Affiliate. The Plan is also designed to encourage stock ownership by such persons, thereby aligning their interest with those of the Company's shareholders. Pursuant to the provisions hereof, there may be granted Options (including "incentive stock options" and "non-qualified stock options"), and Other Stock-Based Awards, including but not limited to Restricted Stock, Restricted Stock Units, Stock Appreciation Rights (payable in shares) and Other Cash-Based Awards.

2. **DEFINITIONS**. For purposes of the Plan, the following terms are defined as set forth below:

(a) "Adoption Date" means June 5, 2017, the date approved by the Board as the adoption date of the Plan, including the extension of its term as set forth in Section 7(f) below.

(b) "Affiliate" means an affiliate of the Company, as defined in Rule 12b-2 promulgated under Section 12 of the Exchange Act.

(c) "Award" means individually or collectively, a grant under the Plan of Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights or Other Stock-Based Awards or Other Cash-Based Awards.

(d) "Award Terms" means any written agreement, contract, notice or other instrument or document evidencing an Award.

(e) "Beneficial Owner" has the meaning ascribed to such term in Rule 13d-3 of the Exchange Act.

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

(g) "Cause," unless otherwise defined in the Award Terms for a particular Award or in any employment or other agreement between the Grantee and the Company, any Subsidiary or any Affiliate, means:

(i) willful neglect, failure or refusal by the Grantee to perform his or her employment duties (except resulting from the Grantee's incapacity due to illness) as reasonably directed by his or her employer;

(ii) willful misconduct by the Grantee in the performance of his or her employment duties;

(iii) the Grantee's indictment for a felony (other than traffic related offense) or a misdemeanor involving moral turpitude; or

(iv) the Grantee's commission of an act involving personal dishonesty that results in financial, reputational, or other harm to the Company, any Affiliate or any Subsidiary, including, but not limited to, an act constituting misappropriation or embezzlement of property.

(h) "Code" means the Internal Revenue Code of 1986, as amended from time to time.

(i) “Committee” means the Compensation and Corporate Governance Committee of the Board or such other Board committee delegated authority by the Board to administer and oversee this Plan. Unless other determined by the Board, the Committee will be comprised solely of directors who (a) are “non-employee directors” under Rule 16b-3 of the Exchange Act, and (b) otherwise meet the definition of “independent directors” pursuant to the applicable requirements of any national stock exchange upon which the Stock is listed. Any director appointed to the Committee who does not meet the foregoing requirements should recuse himself or herself from all determinations pertaining to Rule 16b-3 of the Exchange Act.

(j) “Company” means VMware, Inc., a corporation organized under the laws of the State of Delaware, or any successor corporation.

(k) “Exchange Act” means the Securities Exchange Act of 1934, as amended from time to time, and as now or hereafter construed, interpreted and applied by regulations, rulings and cases.

(l) “Fair Market Value” means the closing sales price per share of Stock on the principal securities exchange on which the Stock is traded (i) on the date of grant or (ii) on such other date on which the fair market value of Stock is required to be calculated pursuant to the terms of an Award, provided that if there is no such sale on the relevant date, then on the last previous day on which a sale was reported; if the Stock is not listed for trading on a national securities exchange, the fair market value of Stock will be determined in good faith by the Committee.

(m) “Grantee” means a person who, as an employee, independent contractor or non-employee director of the Company, a Subsidiary or an Affiliate, has been granted an Award under the Plan.

(n) “ISO” means any Option designated as and intended to be and which qualifies as an incentive stock option within the meaning of Section 422 of the Code.

(o) “NQSO” means any Option that is designated as a nonqualified stock option or which does not qualify as an ISO.

(p) “Option” means a right, granted to a Grantee under Section 6(b)(i), to purchase shares of Stock. An Option may be either an ISO or an NQSO.

(q) “Other Cash-Based Award” means a cash-based Award granted to a Grantee under Section 6(b)(iv) hereof, including cash awarded as a bonus or upon the attainment of Performance Goals or otherwise as permitted under the Plan.

(r) “Other Stock-Based Award” means an Award granted to a Grantee pursuant to Section 6(b)(iv) hereof, that may be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, Stock, each of which may be subject to the attainment of Performance Goals or a period of continued employment or other terms and conditions as permitted under the Plan.

(s) “Parent” means Dell Technologies Inc., a Delaware corporation.

(t) “Performance Goals” means an objective formula or standard determined by the Committee with respect to each performance period which may utilize one or more of the following factors and any objectively verifiable adjustment(s) thereto: (i) (A) earnings including operating income, (B) earnings before or after (1) taxes, (2) interest, (3) depreciation, (4) amortization, or (5) special items or book value per share (which may exclude nonrecurring items), or (C) growth in earnings before interest, tax, depreciation or amortization; (ii) pre-tax income or after-tax income; (iii) earnings per common share (basic or diluted); (iv) operating profit; (v) revenue, revenue growth or rate of revenue growth; (vi) return on assets (gross or net), return on investment, return on capital, return on invested capital or return on equity; (vii) returns on sales or revenues; (viii) operating expenses; (ix) stock price appreciation; (x) cash flow, free cash flow, cash flow from operations, cash flow return on investment (discounted or otherwise), net cash provided by operations, or cash flow in excess of cost of capital; (xi) implementation or completion of critical projects or processes; (xii) economic value created; (xiii) cumulative earnings per share growth; (xiv) operating margin or profit margin; (xv) common stock price or total stockholder return; (xvi) cost targets, reductions, savings, productivity or efficiencies; (xvii) strategic business criteria, consisting of one or more objectives based on meeting specified market penetration, geographic business expansion, customer satisfaction, employee satisfaction, human resources management, supervision of litigation, information technology, goals relating to acquisitions, divestitures, joint ventures or similar transactions, research or development collaborations or budget comparisons; (xviii) personal professional objectives, including any of the foregoing performance goals, the implementation of policies and plans, the negotiation of transactions and the development of long term business goals; and (xix) any combination of, subset or component of, or a specified increase in, any of the foregoing. Where applicable, the Performance Goals may be expressed in terms of attaining a specified level of the particular criteria or the attainment of a percentage increase or decrease in the particular criteria, and may be applied to one or more of the Company, a Subsidiary or Affiliate, or a division or strategic business unit of the Company, or may be applied to the performance of the Company relative to a market index, a group of other companies or a combination thereof, all as determined by the Committee. The Performance Goals may include a threshold level of performance below which no payment will be made (or no vesting will occur), levels of performance at which specified payments will be made (or specified vesting will occur), and a maximum level of performance above which no additional payment will be made (or at which full vesting will occur). Objectively verifiable adjustment(s) to Performance Goals can include but are not limited to adjustment(s) to reflect: (1) the impact of specific corporate transactions; (2) accounting or tax law changes; (3) asset write-downs; (4) significant litigation or claim adjustment; (5) foreign exchange gains and losses; (6) disposal of a segment of a business; (7) discontinued operations; (8) refinancing or repurchase of bank loans or debt securities; or (9) unbudgeted capital expenditures. Each of the foregoing Performance Goals will be subject to certification by the Committee.

(u) "Plan" means this Amended and Restated VMware, Inc. 2007 Equity and Incentive Plan, as amended from time to time.

(v) "Restricted Stock" means an Award of shares of Stock to a Grantee under Section 6(b)(ii) that is subject to certain restrictions and to a risk of forfeiture.

(w) "Restricted Stock Unit" means a right granted to a Grantee under Section 6(b)(iii) of the Plan to receive shares of Stock subject to certain restrictions and to a risk of forfeiture.

(x) "Rule 16b-3" means Rule 16b-3, as from time to time in effect promulgated by the Securities and Exchange Commission under Section 16 of the Exchange Act, including any successor to such Rule.

(y) "Stock" means shares of Class A common stock, par value $0.01 per share, of the Company.

(z) "Stock Appreciation Right" means an Award that entitles a Grantee upon exercise to the excess of the Fair Market Value of the Stock underlying the Award over the base price established in respect of such Stock.

(aa) "Subsidiary" means any entity in an unbroken chain of entities beginning with the Company if, at the time of granting of an Award, each of the entities (other than the last entity in the unbroken chain) owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other entities in the chain.

3. **ADMINISTRATION**.

(a) The Plan will be administered by the Committee or, at the discretion of the Board, the Board. In the event the Board is the administrator of the Plan, references herein to the Committee will be deemed to include the Board. The Board may from time to time appoint a member or members of the Committee in substitution for or in addition to the member or members then in office and may fill vacancies on the Committee however caused. Subject to applicable law, the Board or the Committee may delegate to a sub-committee or individual the ability to grant Awards to employees who are not subject to potential liability under Section 16(b) of the Exchange Act with respect to transactions involving equity securities of the Company at the time any such delegated authority is exercised.

(b) The decision of the Committee as to all questions of interpretation and application of the Plan will be final, binding and conclusive on all persons. The Committee has the authority in its discretion, subject to and not inconsistent with the express provisions of the Plan, to administer the Plan and to exercise all the power and authority either specifically granted to it under the Plan or necessary or advisable in the administration of the Plan, including without limitation, the authority to grant Awards; determine the persons to whom and the time or times at which Awards will be granted; determine the type and number of Awards to be granted, the number of shares of Stock to which an Award may relate and the terms, conditions, restrictions and Performance Goals relating to any Award; determine whether, to what extent, and under what circumstances an Award may be settled, canceled, forfeited, accelerated, exchanged, or surrendered (including upon a "change in control" or similar transaction); to make adjustments in the terms and conditions (including Performance Goals) applicable to Awards; construe and interpret the Plan and any Award; prescribe, amend and rescind rules and regulations relating to the Plan; to determine the terms and provisions of the Award Terms (which need not be identical for each Grantee); and make all other determinations deemed necessary or advisable for the administration of the Plan. The Committee may correct any defect or supply any omission or reconcile any inconsistency in the Plan or in any Award Terms granted hereunder in the manner and to the extent it deems expedient to carry the Plan into effect and will be the sole and final judge of such expediency. No Committee member will be liable for any action or determination made with respect to the Plan or any Award.

4. **ELIGIBILITY**.

(a) Awards may be granted to officers, employees, independent contractors and non-employee directors of the Company or of any of the Subsidiaries and Affiliates; *provided*, that (i) ISOs may be granted only to employees (including officers and directors who are also employees) of the Company or any of its "related corporations" (as defined in the applicable regulations promulgated under the Code) and (ii) Awards may be granted only to eligible persons who are not employed by the Company or a Subsidiary if such persons perform substantial services for the Company or a Subsidiary.

(b) No ISO may be granted to any employee of the Company or any of its Subsidiaries if such employee owns, immediately prior to the grant of the ISO, stock representing more than 10% of the voting power or more than 10% of the value of all classes of stock of the Company or Parent or a Subsidiary, unless the purchase price for the stock under such ISO is at least 110% of its Fair Market Value at the time such ISO is granted and the ISO, by its terms, will not be exercisable more than five years from the date it is granted. In determining the stock ownership under this paragraph, the provisions of Section 424(d) of the Code will control.

(c) No Award, except for Restricted Stock, may be granted to any employee or independent contractor who is subject to Section 409A of the Code if such person is an employee or independent contractor of an Affiliate that is not a Subsidiary, unless such Award conforms to the requirements of Section 409A.

5. **STOCK SUBJECT TO THE PLAN**.

(a) The maximum number of shares of Stock reserved for the grant or settlement of Awards under the Plan (the "Share Limit") is 145,167,881*,* subject to adjustment as provided herein, not including shares of stock added to the Share Limit pursuant to Section 5(c).

(b) Shares issued pursuant to Awards under the Plan may, in whole or in part, be authorized but unissued shares or shares that have been or may be reacquired by the Company in the open market, in private transactions or otherwise. If any shares subject to an Award (other than Awards substituted or assumed pursuant to Section 5(c) herein) are forfeited, canceled, exchanged or surrendered or if an Award otherwise terminates or expires without a distribution of shares to the Grantee, the shares of stock with respect to such Award will, to the extent of any such forfeiture, cancellation, exchange, surrender, termination or expiration, again be available for Awards under the Plan.

(c) The Company may substitute or assume equity awards of acquired entities in connection with mergers, reorganizations, separations, or other transactions to which Section 424(a) of the Code applies. The number of shares of Stock reserved pursuant to Section 5 will be increased by the corresponding number of equity awards assumed and, in the case of a substitution, by the net increase in the number of shares of Stock subject to equity awards before and after the substitution.

(d) Subject to the Share Limit and Section 5(g), the aggregate maximum number of shares of Stock that may be issued pursuant to the exercise of ISOs will be 145,167,881shares of Stock.

(e) Subject to the Share Limit and Section 5(g), the aggregate number of shares of Stock that may be issued pursuant to Awards granted during any fiscal year to any single individual may not exceed 3,611,400 shares of Stock.

(f) The maximum value of Awards granted during a single fiscal year under this Plan or under any other equity plan maintained by the Company, taken together with any cash fees paid during such fiscal year for services on the Board, will not exceed $1,000,000 in total value for any non-employee director, except that such limit will be $1,250,000 for any non-employee director serving as the lead director of the Board or chair of the Board. Such applicable limit will include the value of any stock awards that are received in lieu of all or a portion of any annual committee cash retainers or other similar cash based payments.

(g) Except as provided in an Award Term or as otherwise provided in the Plan, in the event of any extraordinary dividend or other extraordinary distribution (whether in the form of cash, Stock, or other property), recapitalization, stock split, reverse split, reorganization, merger, consolidation, spin-off, recapitalization, combination, repurchase, or share exchange, or other similar corporate transaction or event, the Committee will make such equitable changes or adjustments as it deems necessary or appropriate to any or all of (i) the number and kind of shares of Stock or other property (including cash) that may thereafter be issued in connection with Awards (including, but not limited to changes or adjustments to the limits specified in Sections 5(d) and (e)) or the total number of Awards issuable under the Plan, (ii) the number and kind of shares of Stock or other property issued or issuable in respect of outstanding Awards, (iii) the exercise price, grant price or purchase price relating to any Award, (iv) the Performance Goals, and (v) the individual limitations applicable to Awards; provided that, with respect to ISOs, any adjustment will be made in accordance with the provisions of Section 424(h) of the Code and any regulations or guidance promulgated thereunder, and provided further that no such adjustment will cause any Award hereunder which is or becomes subject to Section 409A of the Code to fail to comply with the requirements of such section.

6. **SPECIFIC TERMS OF AWARDS**.

(a) *General*. Subject to the terms of the Plan and any applicable Award Terms, (i) the term of each Award will be for such period as may be determined by the Committee, and (ii) payments to be made by the Company or a Subsidiary or Affiliate upon the grant, maturation, or exercise of an Award may be made in such forms as the Committee determines at the date of grant or thereafter, including, without limitation, cash, Stock or other property, and may be made in a single payment or transfer, in installments, or, subject to the requirements of Section 409A of the Code on a deferred basis.

(b) *Awards.* The Committee is authorized to grant to Grantees the following Awards, as deemed by the Committee to be consistent with the purposes of the Plan. The Committee will determine the terms and conditions of such Awards, consistent with the terms of the Plan. Options and Stock Appreciation Rights (“SARs”) are subject to a minimum one-year vesting period following grant, with the exception that up to 5% of the available shares of Stock reserved for grant may be subject to such Awards without such minimum vesting period. Subject to compliance with the requirements of Section 409A of the Code, an Award may provide the Grantee with the right to receive dividend or dividend equivalent payments with respect to Stock actually or notionally subject to the Award, which payments will be credited to an account for the Grantee, and may be settled in cash or Stock, as determined by the Committee. Any such dividend or dividend equivalents will be settled in cash or Stock to the Grantee only if, when and to the extent the related Award vests. The value of dividend or dividend equivalent payments payable with respect to any Award that does not vest will be forfeited.

(i) *Options*. The Committee is authorized to grant Options to Grantees on the following terms and conditions:

(1) The Award Terms evidencing the grant of an Option under the Plan will designate the Option as an ISO or an NQSO.

(2) The exercise price per share of Stock purchasable under an Option will be determined by the Committee, but in no event may the exercise price of an Option per share of Stock be less than the Fair Market Value of a share of Stock as of the date of grant of such Option. The purchase price of Stock as to which an Option is exercised must be paid in full at the time of exercise; payment may be made in cash, which may be paid by check, or other instrument acceptable to the Company, or, with the consent of the Committee, in shares of Stock, valued at the Fair Market Value on the date of exercise (including shares of Stock that otherwise would be distributed to the Grantee upon exercise of the Option), or if there were no sales on such date, on the next preceding day on which there were sales or (if permitted by the Committee and subject to such terms and conditions as it may determine) by surrender of outstanding Awards under the Plan, or the Committee may permit such payment of exercise price by any other method it deems satisfactory in its discretion. In addition, subject to applicable law and pursuant to procedures approved by the Committee, payment of the exercise price may be made pursuant to a broker-assisted cashless exercise procedure. Any amount necessary to satisfy applicable federal, state or local tax withholding requirements must be paid promptly upon notification of the amount due. The Committee may permit the amount of tax withholding to be paid in shares of Stock previously owned by the employee, or a portion of the shares of Stock that otherwise would be distributed to such employee upon exercise of the Option, or a combination of shares of such Stock and other property, except that the amount of tax withholding to be satisfied by withholding shares of Stock and other property will be limited to the extent necessary to avoid adverse accounting consequences, including but not limited to the Award being classified as a liability award.

(3) Options will be exercisable over the exercise period (which may not exceed ten years from the date of grant), at such times and upon such conditions as the Committee may determine, as reflected in the Award Terms; provided that, the Committee has the authority to accelerate the exercisability of any outstanding Option at such time and under such circumstances as it, in its sole discretion, deems appropriate.

(4) Upon the termination of a Grantee’s employment or service with the Company and its Subsidiaries or Affiliates, the Options granted to such Grantee, to the extent that they are exercisable at the time of such termination, will remain exercisable for such period as may be provided in the applicable Award Terms, but in no event following the expiration of their term. The treatment of any Option that is unexercisable as of the date of such termination will be as set forth in the applicable Award Terms.

(5) Options may be subject to such other conditions, as the Committee may prescribe in its discretion or as may be required by applicable law.

(ii) *Restricted Stock*.

(1) The Committee may grant Awards of Restricted Stock under the Plan, subject to such restrictions, terms and conditions, as the Committee may determine in its sole discretion and as evidenced by the applicable Award Terms (provided that any such Award is subject to the vesting requirements described herein). The vesting of a Restricted Stock Award granted under the Plan may be conditioned upon the completion of a specified period of employment or service with the Company, any Subsidiary or an Affiliate, upon the attainment of specified Performance Goals or upon such other criteria as the Committee may determine in its sole discretion.

(2) The Committee will determine the purchase price, which, to the extent required by law, may not be less than par value of the Stock, to be paid by the Grantee for each share of Restricted Stock or unrestricted Stock or stock units subject to the Award. The Award Terms with respect to such Award will set forth the amount (if any) to be paid by the Grantee with respect to such Award and when and under what circumstances such payment is required to be made.

(3) Except as provided in the applicable Award Terms, no shares of Stock underlying a Restricted Stock Award may be assigned, transferred, or otherwise encumbered or disposed of by the Grantee until such shares of Stock have vested in accordance with the terms of such Award.

(4) Upon the termination of a Grantee's employment or service with the Company and its Subsidiaries or Affiliates, the Restricted Stock granted to such Grantee will be subject to the terms and conditions specified in the applicable Award Terms.

(iii) *Restricted Stock Units*. The Committee is authorized to grant Restricted Stock Units to Grantees, subject to the following terms and conditions:

(1) At the time of the grant of Restricted Stock Units, the Committee may impose such restrictions or conditions to the vesting of such Awards as it, in its discretion, deems appropriate, including, but not limited to, the achievement of Performance Goals. The Committee has the authority to accelerate the settlement of any outstanding award of Restricted Stock Units at such time and under such circumstances as it, in its sole discretion, deems appropriate, subject compliance with the requirements of Section 409A of the Code.

(2) Unless otherwise provided in the applicable Award Terms or except as otherwise provided in the Plan, upon the vesting of a Restricted Stock Unit there will be delivered to the Grantee, as soon as practicable following the date on which such Award (or any portion thereof) vests, that number of shares of Stock equal to the number of Restricted Stock Units becoming so vested.

(3) Upon the termination of a Grantee's employment or service with the Company and its Subsidiaries or Affiliates, the Restricted Stock Units granted to such Grantee will be subject to the terms and conditions specified in the applicable Award Terms.

(iv) *Other Stock-Based or Cash-Based Awards*.

(1) The Committee is authorized to grant Awards to Grantees in the form of Other Stock-Based Awards or Other Cash-Based Awards, as deemed by the Committee to be consistent with the purposes of the Plan. The Committee will determine the terms and conditions of such Awards, consistent with the terms of the Plan, at the date of grant or thereafter, including the Performance Goals and performance periods. Stock or other securities or property delivered pursuant to an Award in the nature of a purchase right granted under Section 6(iv) may be purchased for such consideration, paid for at such times, by such methods, and in such forms, including, without limitation, Stock, other Awards, notes or other property, as the Committee will determine, subject to any required corporate action.

(2) The maximum value of the aggregate payment that any Grantee may receive with respect to Other Cash-Based Awards pursuant to this Section 6(b)(iv) in respect of any annual performance period is $5,000,000 and for any other performance period in excess of one year, such amount multiplied by a fraction, the numerator of which is the number of months in the performance period and the denominator of which is twelve. The Committee may establish other rules applicable to the Other Stock- or Cash-Based Awards.

(3) Payments earned in respect of any Cash-Based Award may be decreased or increased in the sole discretion of the Committee based on such factors as it deems appropriate.

7. **GENERAL PROVISIONS**.

(a) *Nontransferability, Deferrals and Settlements*. Unless otherwise determined by the Committee or provided in an Award Term or set forth below, but in accordance with the Code and any applicable laws, Awards will not be transferable by a Grantee except by will or the laws of descent and distribution and will be exercisable during the lifetime of a Grantee only by such Grantee or his guardian or legal representative. Any attempted assignment or transfer of an Award will be null and void and without effect, except as herein provided, including without limitation any purported assignment, whether voluntary or by operation of law, pledge, hypothecation or other disposition, attachment, divorce, trustee process or similar process, whether legal or equitable, upon such Award. The Committee may permit Grantees to elect to defer the issuance of shares of Stock or the settlement of Awards in cash under such rules and procedures as established under the Plan to the extent that such deferral complies with Section 409A of the Code and any regulations or guidance promulgated thereunder.

(b) *Leave of Absence; Reduction in Service Level*. The Committee may determine, in its discretion (i) whether, and the extent to which, an Award will vest during a leave of absence, (ii) whether, and the extent to which, a reduction in service level (for example, from full-time to part-time employment), will cause a reduction, or other change, in an Award, and (iii) whether a leave of absence or reduction in service will be deemed a termination of employment or service for the purpose of the Plan and the Award Terms. The Committee will also determine all other matters relating to whether the employment or service of a recipient of an Award is continuous for purposes of the Plan and the Award Terms.

(c) *No Right to Continued Employment, etc*. Nothing in the Plan or in any Award granted or any Award Terms, promissory note or other agreement entered into pursuant hereto confers upon any Grantee the right to continue in the employ or service of the Company, any Subsidiary or any Affiliate or to be entitled to any remuneration or benefits not set forth in the Plan or the applicable Award Terms or to interfere with or limit in any way the right of the Company or any such Subsidiary or Affiliate to terminate such Grantee's employment or service.

(d) *Clawback/Recoupment*

(i)All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company determines to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Committee may impose additional clawback, recovery or recoupment provisions in an Award agreement as the Committee determines necessary or appropriate, including but not limited to a reacquisition right in respect of previously acquired shares of Stock or other cash or property upon the occurrence of Cause as determined by the Committee.

(ii)In the event of a restatement of incorrect financial results, the Committee will review all Awards held by executive officers (within the meaning of Rule 3b-7 of the Exchange Act) of the Company that (i) were earned based on performance or were vesting during the course of the financial period subject to such restatement or (ii) were granted during or within one year following such financial period. If any Award would have been lower or would not have vested, been earned or been granted based on such restated financial results, the Committee will, if it determines appropriate in its sole discretion and to the extent permitted by governing law, (a) cancel such Award, in whole or in part, whether or not vested, earned or payable or (b) require the Grantee to repay to the Company an amount equal to all or any portion of the value of any gains from the grant, vesting or payment of the Award that would not have been realized had the restatement not occurred.

(iii)If a Grantee's employment or service is terminated for Cause, all unvested (and, to the extent applicable, unexercised) portions of Awards will terminate and be forfeited immediately without consideration. In addition, the Committee may in its sole discretion and to the extent permitted by applicable law cause the cancellation of all or a portion of any outstanding vested Awards held by such Grantee or payable to such Grantee or require such Grantee to reimburse the Company for all or a portion of the gains from the exercise of, settlement or payment of any of the Grantee's Awards realized after the event giving rise to Cause first occurred.

(e) *Taxes*. The Company, any Subsidiary and any Affiliate is authorized to withhold from any Award granted, any payment relating to an Award under the Plan, including from a distribution of Stock, or any other payment to a Grantee, amounts of withholding and other taxes due in connection with any transaction involving an Award, and to take such other action as the Committee may deem advisable to enable the Company and Grantees to satisfy obligations for the payment of withholding taxes and other tax obligations relating to any Award. This authority includes authority to withhold or receive Stock or other property and to make cash payments in respect thereof in satisfaction of a Grantee's tax obligations; provided, however, that the amount of tax withholding to be satisfied by withholding Stock or other property will be limited to the extent necessary to avoid adverse accounting consequences, including but not limited to the Award being classified as a liability award.

(f) *Stockholder Approval; Amendment and Termination*. The Board may amend, alter or discontinue the Plan and outstanding Awards thereunder, but no amendment, alteration, or discontinuation may be made that would impair the rights of a Grantee under any Award theretofore granted without such Grantee's consent, or that without the approval of the stockholders (as described below) would, except in the case of an adjustment as provided in Section 5, increase the total number of shares of Stock reserved for the purpose of the Plan. In addition, stockholder approval will be required with respect to any amendment with respect to which shareholder approval is required under the Code, the rules of any stock exchange on which Stock is then listed or any other applicable law. Unless earlier terminated by the Board pursuant to the provisions of the Plan, the Plan will terminate on the tenth anniversary of the Adoption Date. No Awards may be granted under the Plan after such termination date.

(g) *No Rights to Awards; No Stockholder Rights*. No Grantee haves any claim to be granted any Award under the Plan, and there is no obligation for uniformity of treatment of Grantees. No Grantee has any right to payment or settlement under any Award unless and until the Committee or its designee determines that payment or settlement is to be made. Except as provided specifically herein, a Grantee or a transferee of an Award has no rights as a stockholder with respect to any shares covered by the Award until the date of the issuance of such shares.

(h) *Unfunded Status of Awards*. The Plan is intended to constitute an "unfunded" plan for incentive and deferred compensation. With respect to any payments not yet made to a Grantee pursuant to an Award, nothing contained in the Plan or any Award will give any such Grantee any rights that are greater than those of a general creditor of the Company.

(i) *No Fractional Shares*. No fractional shares of Stock will be issued or delivered pursuant to the Plan or any Award. The Committee will determine whether cash, other Awards, or other property will be issued or paid in lieu of such fractional shares or whether such fractional shares or any rights thereto will be forfeited or otherwise eliminated.

(j) *Regulations and Other Approvals*.

(i) The obligation of the Company to sell or deliver Stock or pay cash with respect to any Award granted under the Plan is subject to all applicable laws, rules and regulations, including all applicable federal and state securities laws, and the obtaining of all such approvals by governmental agencies as may be deemed necessary or appropriate by the Committee.

(ii) Each Award is subject to the requirement that, if at any time the Committee determines, in its absolute discretion, that the listing, registration or qualification of Stock issuable pursuant to the Plan is required by any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory body is necessary or desirable as a condition of, or in connection with, the grant of an Award or the issuance of Stock, no such Award may be granted or payment made or Stock issued, in whole or in part, unless listing, registration, qualification, consent or approval has been effected or obtained free of any conditions not acceptable to the Committee.

(iii) In the event that the disposition of Stock acquired pursuant to the Plan is not covered by a then current registration statement under the Securities Act of 1933, as amended (the "Securities Act"), and is not otherwise exempt from such registration, such Stock will be restricted against transfer to the extent required by the Securities Act or regulations thereunder, and the Committee may require a Grantee receiving Stock pursuant to the Plan, as a condition precedent to receipt of such Stock, to represent to the Company in writing that the Stock acquired by such Grantee is acquired for investment only and not with a view to distribution.

(iv) *Section 409A.* This Plan is intended to comply and will be administered in a manner that is intended to comply with Section 409A of the Code and will be construed and interpreted in accordance with such intent. To the extent that an Award, issuance or payment is subject to Section 409A of the Code, it will be awarded or issued or paid in a manner that will comply with Section 409A of the Code, including proposed, temporary or final regulations or any other guidance issued by the Secretary of the Treasury and the Internal Revenue Service with respect thereto. Any provision of this Plan that would cause an Award, issuance or payment to fail to satisfy Section 409A of the Code will have no force and effect until amended to comply with Section 409A of the Code (which amendment may be retroactive to the extent permitted by applicable law). Notwithstanding anything to the contrary in this Plan (and unless the Award Terms specifically provides otherwise), if the shares of Stock are publicly traded and a Grantee is a "specified employee" for purposes of Section 409A of the Code and holds an Award that provides for "deferred compensation" under Section 409A of the Code, no distribution or payment of any amount shall be made upon a "separation from service" before a date that is six months following the date of such Grantee's "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) except that in case of the Grantee's death, such distribution or payment will be made as soon as practicable following the Grantee's death or as otherwise set forth in an agreement with the Grantee.

(k) *Governing Law*. The Plan and all determinations made and actions taken pursuant hereto is governed by the laws of the State of Delaware without giving effect to the conflict of laws principles thereof. Notwithstanding anything to the contrary herein, the Committee, in order to conform with provisions of local laws and regulations in foreign countries in which the Company or its Subsidiaries operate, has sole discretion to (i) modify the terms and conditions of Awards made to Grantees employed outside the United States, (ii) establish sub-plans with modified exercise procedures and such other modifications as may be necessary or advisable under the circumstances presented by local laws and regulations, and (iii) take any action which it deems advisable to obtain, comply with or otherwise reflect any necessary governmental regulatory procedures, exemptions or approvals with respect to the Plan or any sub-plan established hereunder.

(l) *Merger or Consolidation*. If the Company is the surviving corporation in any merger or consolidation (other than a merger or consolidation in which the Company survives but in which a majority of its outstanding shares are converted into securities of another corporation or are exchanged for other consideration), any Award granted hereunder will pertain and apply to the securities which a holder of the number of shares of stock of the Company then subject to the Award is entitled to receive. In the event of a (i) dissolution or liquidation of the Company, (ii) sale or transfer of all or substantially all of the Company's assets or (iii) merger or consolidation in which the Company is not the surviving corporation or in which a majority of its outstanding shares are converted into securities of another corporation or are exchanged for other consideration, the Company must, contingent upon consummation of such transaction, either (a) arrange for any corporation succeeding to the business and assets of the Company to (x) assume each outstanding Award, or (y) issue to the Grantees replacement Awards (which, in the case of Incentive Stock Options, satisfy, in the determination of the Committee, the requirements of Section 424 of the Code), for such corporation's stock that will preserve the value, liquidity and material terms and conditions of the outstanding Awards; or (b) make the outstanding Awards fully exercisable or cause all of the applicable restrictions to which outstanding Stock Awards are subject to lapse, in each case, on a basis that gives the holder of the Award a reasonable opportunity, as determined by the Committee, following the exercise of the Award or the issuance of shares of Common Stock, as the case may be, to participate as a stockholder in any such dissolution, liquidation, asset sale or transfer, merger or consolidation, and the Award will terminate immediately following consummation of any such transaction. The existence of the Plan will not prevent any such change or other transaction, and no Participant hereunder has any right except as herein expressly set forth. Notwithstanding the foregoing provisions of this Section 7(l), Awards subject to and intended to satisfy the requirements of Section 409A of the Code will be construed and administered consistent with such intent.

Exhibit 10.11
December 10, 2020

VMWARE, INC.
AMENDED AND RESTATED 2007 EMPLOYEE STOCK PURCHASE PLAN

Section 1. Purpose of Plan

The VMware, Inc. Amended and Restated 2007 Employee Stock Purchase Plan (the "Plan") is intended to provide a method by which eligible employees of VMware, Inc. ("VMware") and its subsidiaries (collectively, the "Company") may use voluntary, systematic payroll deductions or other contributions (as described in Section 5 below) to purchase VMware's class A common stock, $.01 par value, ("stock") and thereby acquire an interest in the future of VMware. For purposes of the Plan, a subsidiary is any corporation in which VMware owns, directly or indirectly, stock possessing 50% or more of the total combined voting power of all classes of stock unless the Board of Directors of VMware (the "Board of Directors") or the Committee (as defined below) determines that employees of a particular subsidiary shall not be eligible.

The Plan is intended qualify as an "employee stock purchase plan" under Section 423 of the Internal Revenue Code of 1986, as amended (the "Code"). Notwithstanding the foregoing, the Board of Directors may establish comparable offerings under the Plan that are not intended to qualify under Code Section 423. Such offerings will be designated as being made under the non-423 component of this Plan.

For purposes of this Plan, if the Board of Directors so determines, the employees of VMware and/or of any designated subsidiary will be deemed to participate in a separate offering under the 423 component of the Plan, even if the dates of the applicable offering period of each such offering are identical, provided that the terms of participation are the same within each separate offering as determined under Code Section 423.

Section 2. Options to Purchase Stock

Under the Plan, no more than 32,300,000 shares of stock are available for purchase (subject to adjustment as provided in Section 16) pursuant to the exercise of options ("options") granted under the Plan to employees of the Company ("employees"). All of the shares of stock are available for purchase under the Plan may be used for offerings under the 423 component of the Plan. The stock to be delivered upon exercise of options under the Plan may be either shares of VMware's authorized but unissued stock, or shares of reacquired stock, as the Board of Directors shall determine.

Section 3. Eligible Employees

Except as otherwise provided in Section 20, each employee who has completed three months or more of continuous service in the employ of the Company, or any lesser number of months established by the Committee (if required under local law), shall be eligible to participate in the Plan provided such inclusion is consistent with requirements under Code Section 423 or offered under the non-423 component. For the avoidance of doubt, individuals who are not employees of VMware or an eligible subsidiary are not considered to be eligible employees and shall not be eligible to participate in the Plan.

Section 4. Method of Participation

Option periods of any duration up to 27 months in length shall be determined by the Committee. In the event no period is designated by the Committee, the option periods shall have a duration of six months commencing on the first day following termination of the prior period. For example, if an option period ends on July 31, the following option period would be August 1 through January 31 unless the Committee determines otherwise prior to commencement of such following option period. Each person who will be an eligible employee on the first day of any option period may elect to participate in the Plan by executing and delivering, at least one business day prior to such day, a payroll deduction authorization and/or other required enrollment agreement(s)/form(s) in accordance with Section 5. Such employee shall thereby become a participant ("participant") on the first day of such option period and shall remain a participant until his or her participation is terminated as provided in the Plan. VMware may permit participants to elect or indicate whether an enrollment election, once made, will apply to subsequent option periods without being required to submit a new enrollment form. If an employee makes an enrollment election that does not apply to subsequent option periods, the employee will be deemed to have terminated his or her participation with respect to subsequent option periods unless and until the employee submits a new enrollment form in accordance with the Plan.

Section 5. Contributions

A participant may elect to make contributions under the Plan at a rate of not less than 2% nor more than 15% from the participant's compensation (subject to a maximum of $7,500 per six-month option period and pro-rated for longer or shorter periods, at the Committee's discretion), by means of substantially equal payroll deductions over the option period; provided, however, where applicable local laws prohibit payroll deductions for the purpose of participation in the Plan, the Committee may permit all participants in a specified separate offering under the 423 component or an offering under the non-423 component of the Plan to contribute amounts to the Plan through payment by cash, check or other means set forth in the enrollment form. Any amount remaining in a participant's contribution account at the end of an option period representing a fractional share that is rolled over to the contribution account for the next option period pursuant to Section 8 below (a "rollover") may be used to purchase additional stock; provided that the maximum dollar amount per option period shall be reduced by the amount of any rollover. For purposes of the Plan, "compensation" shall mean all cash compensation paid to the participant by the Company unless otherwise specified by the Board.

A participant may only elect to change his or her contribution rate by written notice delivered to VMware (or its designated agent) at least one business day prior to the first day of the option period as to which the change is to be effective. Following delivery to VMware (or its designated agent) of any enrollment form or any election to change the withholding rate of a payroll deduction authorization, appropriate payroll deductions or changes thereto shall commence as soon as reasonably practicable. All amounts withheld in accordance with a participant's payroll deduction authorization or contributed by other permitted means (if any) shall be credited to a contribution account for such participant.

Section 6. Grant of Options

Each person who is a participant on the first day of an option period shall, as of such day, be granted an option for such period. Such option shall be for the number of shares of stock to be determined by dividing (a) the balance in the participant's contribution account on the last day of the option period by (b) the purchase price per share of the stock determined under Section 7, and eliminating any fractional share from the quotient. In the event that the number of shares then available under the Plan is otherwise insufficient, VMware shall reduce on a substantially proportionate basis the number of shares of stock receivable by each participant upon exercise of his or her option for an option period and shall return the balance in a participant's contribution account to such participant without interest (unless otherwise required by local law). In no event shall the number of shares of stock that a participant may purchase during any one six-month option period under the Plan exceed 750 shares of stock (subject to adjustment as provided in Section 16), and pro-rated for longer or shorter periods, at the Committee's discretion.

Section 7. Purchase Price

The purchase price of stock issued pursuant to the exercise of an option shall be 85% of the fair market value of the stock at (a) the time of grant of the option or (b) the time at which the option is deemed exercised, whichever is less. "Fair market value" shall mean the closing sales price per share of the stock on the principal securities exchange on which the stock is traded or, if there is no such sale on the relevant date, then on the last previous day on which a sale was reported; if the stock is not listed for trading on a national securities exchange, the fair market value of the stock shall be determined in good faith by the Board of Directors.

Section 8. Exercise of Options

If an employee is a participant in the Plan on the last business day of an option period, he or she shall be deemed to have exercised the option granted to him or her for that period. Upon such exercise, VMware shall apply the balance of the participant's contribution account to the purchase of the number of whole shares of stock determined under Section 6, and as soon as practicable thereafter shall issue and deliver certificates for said shares to the participant (or have the shares deposited in a brokerage account for the benefit of the participant). No fractional shares shall be issued hereunder. Any balance accumulated in the participant's contribution account that is not sufficient to purchase a full share shall be retained in such account for any remaining or subsequent option period, subject to early withdrawal by the participant as provided in Section 10. Any other monies remaining in the participant's contribution account under the Plan after the date of exercise shall be returned to the participant or his or her beneficiary (as applicable) in cash without interest (unless otherwise required by local law).

Notwithstanding anything herein to the contrary, VMware shall not be obligated to deliver any shares unless and until, in the opinion of VMware's counsel, all requirements of applicable federal, state and foreign laws and regulations (including any requirements as to legends) have been complied with, nor, if the outstanding stock is at the time listed on any securities exchange, unless and until the shares to be delivered have been listed (or authorized to be added to the list upon official notice of issuance) upon such exchange, nor unless or until all other legal matters in connection with the issuance and delivery of shares have been approved by VMware's counsel.

Section 9. Interest

No interest will be payable on contribution accounts, except as may be required by applicable law, as determined by the Committee.

Section 10. Cancellation and Withdrawal

A participant who holds an option under the Plan may cancel all (but not less than all) of his or her option by written notice delivered to the Company, in such form as the Committee may prescribe, provided that VMware (or its designated agent) must receive such notice at least 31 days, or such other number of days determined by the Committee, before the last day of the option period (the "Withdrawal Deadline"). Any participant who delivers such written notice shall be deemed to have canceled his or her option, terminated any applicable payroll deduction authorization with respect to the Plan and terminated his or her participation in the Plan, in each case, as of the date of such written notice. In the event that the date of the Withdrawal Deadline with respect to the applicable option period, shall be a Saturday, Sunday or day on which banks in the State of Delaware are required to close, a participant may cancel his or her option by written notice given on or prior to the last business day immediately preceding such date. Following delivery of any such notice, any balance in the participant's contribution account will be returned to such participant as soon as reasonably practicable without interest (unless otherwise required by local law). Any participant who has delivered such notice may elect to participate in the Plan in any future option period in accordance with the provisions of Section 4.

Section 11. Termination of Employment

Except as otherwise provided in Section 12, upon the termination of a participant's employment with the Company for any reason whatsoever, he or she shall cease to be a participant, and any option held by him or her under the Plan shall be deemed canceled, the balance of his or her contribution account shall be returned to him or her without interest (unless otherwise required by local law), and he or she shall have no further rights under the Plan. For purposes of this Section 11, a participant's employment will not be considered terminated in the case of a transfer to the employment of an eligible subsidiary or to the employment of VMware. However, in the event of a transfer of employment, VMware may transfer participant's participation to a separate offering or non-423 component offering, if advisable or necessary, considering applicable local law and Code Section 423 requirements. For purposes of the Plan, an individual's employment relationship is still considered to be continuing intact while such individual is on sick leave, or other leave of absence approved for purposes of this Plan by the Company; provided however, that if such period of leave of absence exceeds three months, and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship shall be deemed to have terminated on the first day following such three month period.

Section 12. Death of Participant

In the event a participant holds any option hereunder at the time his or her employment with the Company is terminated by his or her death, whenever occurring, then his or her legal representative, may, by a writing delivered to VMware on or before the date such option is exercisable, elect either (a) to cancel any such option and receive in cash the balance in his or her contribution account, or (b) to have the balance in his or her contribution account applied as of the last day of the option period to the exercise of his or her option pursuant to Section 8, and have the balance, if any, in such account in excess of the total purchase price of the whole shares so issued returned in cash without interest (unless otherwise required by local law). In the event his or her legal representative does not file a written election as provided above, any outstanding option shall be treated as if an election had been filed pursuant to subparagraph 12(a) above.

Section 13. Participant's Rights Not Transferable, etc.

All participants granted options under a specified offering under the 423 component of the Plan shall have the same rights and privileges. Each participant's rights and privileges under any option granted under the Plan shall be exercisable during his or her lifetime only by him or her, and shall not be sold, pledged, assigned, or otherwise transferred in any manner whatsoever except by will or the laws of descent and distribution. In the event any participant violates the terms of this Section, any options held by him or her may be terminated by VMware and, upon return to the participant of the balance of his or her contribution account, all his or her rights under the Plan shall terminate.

Section 14. Employment Rights

Neither the adoption of the Plan nor any of the provisions of the Plan shall confer upon any participant any right to continued employment with the Company or a subsidiary or affect in any way the right of the participant's employer to terminate the employment of such participant at any time.

Section 15. Rights as a Shareholder/Use of Funds

A participant shall have the rights of a shareholder only as to stock actually acquired by him or her under the Plan.

All contributions received under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such funds, but may do so if required under applicable local law.

Section 16. Change in Capitalization

In the event of a stock dividend, stock split or combination of shares, recapitalization, merger in which VMware is the surviving corporation or other change in VMware's capital stock, the number and kind of shares of stock or securities of VMware to be subject to the Plan and to options then outstanding or to be granted hereunder, the maximum number of shares or securities which may be delivered under the Plan, the option price and other relevant provisions shall be appropriately adjusted by the Board of Directors, whose determination shall be binding on all persons. In the event of a consolidation or merger in which VMware is not the surviving corporation or in the event of the sale or transfer of substantially all VMware's assets (other than by the grant of a mortgage or security interest), all outstanding options shall thereupon terminate, provided that prior to the effective date of any such merger, consolidation or sale of assets, the Board of Directors shall either (a) return the balance in all contribution accounts and cancel all outstanding options, or (b) accelerate the exercise date provided for in Section 8, or (c) if there is a surviving or acquiring corporation, arrange to have that corporation or an affiliate of that corporation grant to the participants replacement options having equivalent terms and conditions as determined by the Board of Directors.

In the event of a corporate restructuring, VMware may transfer or terminate participant's participation to a separate offering or non-423 component offering, if advisable or necessary, considering applicable local law and Code Section 423 requirements.

Section 17. Administration of Plan

The Plan will be administered by the Board of Directors. The Board of Directors will have authority, not inconsistent with the express provisions of the Plan, to take all action necessary or appropriate hereunder, to interpret its provisions, and to decide all questions which may arise in connection therewith. Except with respect to officers of VMware who are subject to the reporting requirements of Section 16 of the Securities Act of 1934, management of VMware is also authorized to resolve participant disputes under the Plan, consistent with the terms of the Plan and any agreements thereunder and any interpretations or guidance issued under the Plan by the Board of Directors or the Committee.

The Board may, in its discretion, delegate its powers with respect to the Plan to the Compensation and Corporate Governance Committee or any other committee at VMware (the "Committee"), in which event all references to the Board of Directors hereunder, including without limitation the references in Section 17, shall be deemed to refer to the Committee. A majority of the members of any such Committee shall constitute a quorum, and all determinations of the Committee shall be made by a majority of its members. Any determination of the Committee under the Plan may be made without notice or meeting of the Committee by a writing signed by all of the Committee members.

Determinations of the Board of Directors, the Committee or where appropriate, management of the Company, shall be conclusive and shall bind all parties.

Section 18. Amendment and Termination of Plan

The Board of Directors may at any time or times amend the Plan or amend any outstanding option or options for the purpose of satisfying the requirements of any changes in applicable laws or regulations or for any other purpose which may at the time be permitted by law, provided that (except to the extent explicitly required or permitted herein) no such amendment will, without the approval of the shareholders of the Company, (a) increase the maximum number of shares available under the Plan, (b) reduce the option price of outstanding options or reduce the price at which options may be granted, (c) change the conditions for eligibility under the Plan, or (d) amend the provisions of this Section 18 of the Plan, and no such amendment will adversely affect the rights of any participant (without his or her consent) under any option theretofore granted.

The Plan may be terminated at any time by the Board of Directors, but no such termination shall adversely affect the rights and privileges of holders of the outstanding options.

Section 19. Approval of Shareholders

The Plan as amended and restated was approved by the stockholders of the Company on June 8, 2017 and was further amended by the stockholders on June 25, 2019. Subsequent amendments will be approved by the stockholders to the extent required by applicable securities and tax rules and regulations as well as applicable rules of the securities exchange(s) upon which the stock may be listed for trading.

Section 20. Limitations

Notwithstanding any other provision of the Plan:

(a) An employee shall not be eligible to receive an option pursuant to the Plan if, immediately after the grant of such option to him or her, he or she would (in accordance with the provisions of Sections 423 and 424(d) of the Code own or be deemed to own stock possessing 5% or more of the total combined voting power or value of all classes of stock of the employer corporation or of its parent or subsidiary corporation, as defined in Section 424 of the Code.

(b) No employee shall be granted an option under this Plan that would permit his or her rights to purchase shares of stock under all employee stock purchase plans (as defined in Section 423 of the Code) of VMware or any subsidiary or parent corporation to accrue at a rate which exceeds $25,000 in fair market value of such stock (determined at the time the option is granted) for each calendar year during which any such option granted to such employee is outstanding at any time, as provided in Section 423 of the Code.

(c) No employee shall be granted an option under this Plan that would permit him or her to withhold more than $7,500 in each six-month option period, and pro-rated for longer or shorter periods, at the Committee's discretion, or $15,000 per calendar year, less the amount of any rollover.

(d) No employee whose customary employment is 20 hours or less per week shall be eligible to participate in the Plan, unless otherwise required under applicable law. If participation in the Plan is offered to employees whose customary employment is 20 hours or less, the offering will be made under a separate offering under the 423 component or under the non-423 component of the Plan.

(e) No employee whose customary employment is for not more than five months in any calendar year shall be eligible to participate in the Plan.

(f) No independent contractor shall be eligible to participate in the Plan.

Section 21. Jurisdiction and Governing Law.

The Company and each participant in the Plan submit to the exclusive jurisdiction and venue of the U.S. federal or state courts of Delaware to resolve issues that may arise out of or relate to the Plan or the same subject matter. The Plan shall be governed by the laws of Delaware, excluding its conflicts or choice of law rules or principles that might otherwise refer construction or interpretation of this Plan to the substantive law of another jurisdiction.

Section 22. Compliance with Foreign Laws and Regulations.

Notwithstanding anything to the contrary herein, the Board, in order to conform with provisions of local laws and regulations in foreign countries in which the Company or its subsidiaries operate, shall have sole discretion to (i) adversely modify the terms and conditions of options granted to participants employed outside the United States to the extent consistent with the U.S. Treasury regulations under Code Section 423; (ii) establish comparable offerings that are not intended to qualify under Code Section 423 with the shares to be taken from the allotment available under this Plan and with modified enrollment or exercise procedures and/or establish such other modifications as may be necessary or advisable under the circumstances presented by local laws and regulations; and (iii) take any action which it deems advisable to obtain, comply with or otherwise reflect any necessary governmental regulatory procedures, exemptions or approvals with respect to the Plan or any sub-plan established hereunder.

VMWARE, INC.

2007 EQUITY AND INCENTIVE PLAN

Performance Stock Unit AGREEMENT

I. NOTICE OF GRANT

Unless otherwise defined in this notice of grant ("**Notice of Grant**") and Performance Stock Unit Agreement ("**Agreement**"), the capitalized terms used herein have the meanings set forth in the VMware, Inc. 2007 Amended and Restated Equity and Incentive Plan (the "**Plan**").

Name: ____ ("Participant")

The Participant has been granted an award (the "**Award**") of Performance Stock Units (the "**PSUs**"), subject to the terms and conditions of this Notice of Grant, the Plan and this Agreement. Except as set forth in Sections 2(b) and 4 of the Agreement, the number of shares earned pursuant to the Award will equal the number of shares subject to the PSUs set forth below multiplied by the conversion ratio determined by the Administrator (the "**Conversion Ratio**") at the end of the Award Performance Period in accordance with the schedule attached as **Exhibit A** to this Agreement (the "**Performance Schedule**").

Date of Grant: ____

Number of PSUs: ____

Award Performance Period: ____

Vesting Schedule:

The Award will vest in full on ________ __, 20__ (the "**Vesting Date**"), subject to the Participant's continuing employment with the Company or any Subsidiary through the Vesting Date in accordance with Sections 2(a) and 2(c) of the Agreement.

II. AGREEMENT

1. Grant of the PSUs. The Company has granted the Participant the number of PSUs set forth in the Notice of Grant. However, unless and until the PSUs have vested, the Participant will have no right to the payment or receipt of any Stock subject thereto. Prior to actual payment or receipt of any Stock, the PSUs will represent an unsecured obligation of the Company, payable (if at all) only from the general assets of the Company.

2. Vesting of PSUs.

(a) Subject to Sections 2(b), 2(c), 4(c), 4(d) and 4(e) below, the Participant will vest in the PSUs in accordance with the vesting schedule set forth in the Notice of Grant, except, that, if the Participant incurs a termination of employment for any reason other than due to Participant's death or termination by the Company or Subsidiary due to "disability" (as defined under the applicable long-term disability plan of the Company or Subsidiary, or, if there is no such plan, as determined by the Board or the Committee (each, the "**Administrator**")), such that the Participant is no longer employed by the Company or any Subsidiary, the Participant's right to vest in the PSUs and to receive the Stock related thereto will terminate effective as of the date that Participant ceases to be so employed (the "**Termination Date**") and thereafter, the Participant will have no further rights to such unvested PSUs or the related Stock. In such case, any unvested PSUs held by the Participant immediately following such termination of employment will be deemed forfeited.

(b) If the Participant's employment is terminated by reason of death or by the Company due to disability, then, unless otherwise set forth in **Exhibit A**:

i) vesting in this Award will accelerate fully with respect to the number of unvested PSUs subject to any Completed Performance Period.

ii) if the Vesting Date is scheduled to occur prior to or on the first anniversary of the Termination Date, vesting in this Award will further accelerate on a pro rata basis with respect to the number of unvested PSUs subject to any Incomplete Performance Period, with such pro rata calculation derived by dividing number of days that have elapsed as of the Termination Date since the start of any such Incomplete Performance Periods by the total number of days in the Incomplete Performance Period.

iii) The Conversion Ratio utilized to convert PSUs into shares will be calculated based on the actual achievement of the performance metrics set forth in **Exhibit A** as determined by the Administrator as of the Termination Date, except that if the Conversion Ratio depends upon the calculation of one or more separate performance metrics for which achievement has not been determined as of the Termination Date, vesting will be accelerated for the number of shares that would have vested had target performance been achieved for such separate performance metric(s).

iv) If this Award has more than one Vesting Date, then the pro rata calculation set forth in Section 2(b)(2) for Incomplete Performance Periods will be applied only with respect to the number of PSUs scheduled to vest on Vesting Dates scheduled to occur prior to or on the first anniversary of the Termination Date.

v) Definitions.

(1) "**Completed Performance Period**" means a Performance Period that is completed prior to or on the Termination Date.

(2) "**Incomplete Performance Period**" means any Performance Period that has not been completed prior to the Termination Date.

(3) "**Performance Period**" means any individual performance period embedded within the Award Performance Period or, if there are no such embedded performance period, the Award Performance Period.

(c) Solely for purposes of this Agreement, the Company, in its sole discretion, may consent to treating employment of the Participant by Dell Technologies Inc. (the "**Parent**"), or by an Affiliate in which the Company and Parent hold, directly or indirectly, an aggregate of at least 80% of the equity or voting interest, the same as if the Participant is employed by the Company in accordance with procedures approved by the Committee, except that if the Participant is an officer subject to Section 16 of the Exchange Act, such consent must be approved by the Committee.

3. Issuance of Stock. No Stock will be issued to the Participant prior to the date on which the PSUs vest. After any PSUs vest and subject to the terms of this Agreement, including without limitation Section 8 hereof, the Company will cause to be issued (either in book-entry form or otherwise) to the Participant or the Participant's beneficiaries, as the case may be, that number of shares of Stock corresponding to the number of such vested PSUs as soon as administratively practicable following vesting, but in no event will the issuance of such shares be made subsequent to March 15th of the year following the year in which the shares vested. No fractional shares of Stock will be issued under this Agreement. Notwithstanding any provision in the Plan to the contrary and subject only to changes in Stock, as set forth in Section 9 hereof, the PSUs will be settled only in shares of Stock.

4. Change in Control.

(a) Change in Control during Award Performance Period. In the event of a Change in Control during the Award Performance Period, the Award Performance Period and all Incomplete Performance Periods will terminate immediately prior to consummation of the Change in Control. The Administrator will determine the Conversion Ratio prior to the consummation of the Change in Control pursuant to instructions set forth in the Performance Schedule. If the Performance Schedule does not set forth the means for calculating the Conversion Ratio in the event of a Change in Control, then the Conversion Ratio will equal one share per each vested PSU. **"Change in Control"** has the meaning set forth in **Exhibit A** to this Agreement.

(b) Change in Control following Award Performance Period. In the event of a Change in Control following completion of the Award Performance Period, the Administrator will determine the Conversion Ratio prior to the consummation of the Change in Control based on actual performance pursuant to instructions set forth in the Performance Schedule.

(c) Vesting. Following a Change in Control, this Award will continue to vest in accordance with the original vesting schedule set forth in Section I above, except that if this Award is not assumed or replaced in accordance with the provisions of the Plan regarding the effect of mergers and consolidations on Awards, then immediately prior to the Change in Control, the Award will vest as to a number of shares equal to the total number of PSUs subject to this Award multiplied by the Conversion Ratio.

(d) Termination Due to Death or Disability Following Change in Control. If, following a Change in Control the Participant's vesting in this Award is accelerated in accordance with Section 2(b) above due to termination of employment by reason of death or by the Company due to disability, then:

i) the number of unvested PSUs that are subject to Performance Periods that constituted Completed Performance Periods prior to the Change of Control will fully accelerate;

ii) the number of unvested PSUs that are subject to Performance Periods that constituted Incomplete Performance Periods prior to the Change in Control that when this Award was granted were scheduled to be completed prior to or on the Termination Date will fully accelerate;

iii) the number of unvested PSUs that are subject to Performance Periods that constituted Incomplete Performance Periods prior to the Change of Control that when this Award was granted were scheduled to be completed after the Termination Date and to vest prior to or on the first anniversary of the Termination Date will accelerate on a pro rata basis to the extent set forth in Section 2(b) above; and

iv) any unvested PSUs that are subject to Performance Periods that constituted Incomplete Performance Periods prior to the Change in Control that when this Award was granted were scheduled to be completed after the Termination Date and to vest after the first anniversary of the Termination Date will be not accelerate.

In each of cases 1-3, the Conversion Ratio for the number of PSUs accelerated will be determined in accordance with Section 4(a) above.

5. Participation in Executive Severance Plan and Change in Control Plan. If, at the time that Participant's employment is terminated, the Participant is a participant in either or both the Company's Executive Severance Plan and Change-in-Control Plan (each, an "**Executive Plan**") and Participant's incurs an "Involuntary Termination" of employment (as defined in the applicable Executive Plan), then this Award will accelerate in accordance with the terms of the Executive Plan then applicable to Participant, or as otherwise set forth in **Exhibit A** attached hereto.

6. Death of Participant. Any distribution or delivery to be made to the Participant under this Agreement will, if the Participant is then deceased, be made to the administrator or executor of the Participant's estate. Any such administrator or executor must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer.

7. Leave of Absence; Reduction in Service Level. In accordance with the provisions of the Plan regarding the effect of a leave of absence or a reduction in service level on an outstanding Award, the Committee may determine, in its sole discretion (i) whether, and the extent to which, a leave of absence will cause a reduction or other change in this Award, (ii) whether, and the extent to which, a reduction in service level (for example, from full-time to part-time employment), will cause a reduction, or other change, in an Award, and (iii) whether a leave of absence or reduction in service level will be deemed a termination of employment for the purpose of this Award. Any changes to this Award pursuant to the Plan and this Section 7 of the Agreement will not result in an increase in the amount of the Award or otherwise accelerate its payment. The Committee will also determine all other matters relating to whether the employment or service of Participant is continuous for purposes of this Award.

8. Taxes.

(a) Generally. The Participant is ultimately liable and responsible for all taxes owed in connection with the PSUs, regardless of any action the Company or any entity employing the Participant (the "**Employer**") takes with respect to any tax withholding obligations that arise in connection with the PSUs. Neither the Company nor the Employer make any representation or undertaking regarding the treatment of any tax withholding in connection with the grant or vesting of the PSUs or the subsequent sale of Stock issuable pursuant to the PSUs. The Company and the Employer do not commit and are under no obligation to structure the PSUs to reduce or eliminate the Participant's tax liability.

(b) Payment of Withholding Taxes. Notwithstanding any contrary provision of this Agreement, no Stock will be issued to the Participant, unless and until satisfactory arrangements (as determined by the Administrator) have been made by the Participant with respect to the payment of any taxes that the Company determines must be withheld with respect to the PSUs. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may satisfy such tax withholding obligations, in whole or in part, by withholding otherwise deliverable Stock having an aggregate Fair Market Value sufficient to satisfy (but, unless otherwise consented to by the Participant, not exceeding) the minimum amount required to be withheld or by the sale of shares of Stock to generate sufficient cash proceeds to satisfy any such tax withholding obligation, except that if Participant is an officer subject to Section 16 of the Exchange Act, only such minimum amount will be withheld and such amount will be satisfied by withholding otherwise-deliverable Stock, unless otherwise approved by the Committee. Upon any such withholding, any and all rights of Participant to such withheld Stock will be deemed to be forfeited to the Company. The Participant hereby authorizes the Administrator to take any steps as may be necessary to effect any such sale and agrees to pay any costs associated therewith, including without limitation any applicable broker's fees. In addition, and to the maximum extent permitted by law, the Company may exercise the right to retain, without notice, from salary or other amounts payable to the Participant, cash having a value sufficient to satisfy any tax withholding obligations that cannot be satisfied by the withholding or sale of otherwise deliverable shares of Stock.

9. Changes in Stock. If any extraordinary dividend or other extraordinary distribution (whether in the form of cash, Stock, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, spin-off, combination, repurchase, or exchange of Stock or other securities of the Company, or other similar corporate transaction or event affecting the Stock occurs such that an adjustment or change is determined by the Administrator (in its sole discretion) to be necessary or appropriate, the Administrator will proportionately adjust this Award in accordance with the terms of the Plan, including adjustments in the number and kind of shares of Stock or other property the Participant would have received upon vesting of the PSUs, except that the number of shares of Stock into which the PSUs may be converted will always be a whole number.

10. Rights as Stockholder. Neither the Participant nor any person claiming under or through the Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Stock deliverable hereunder unless and until certificates representing such Stock (which may be in book-entry form) have been issued and recorded in the records of the Company or its transfer agents or registrars and delivered to the Participant (including through electronic delivery to a brokerage account). After such issuance, recordation and delivery, the Participant will have all the rights of a stockholder of the Company with respect to voting such Stock and receipt of dividends and distributions on such Stock.

11. No Effect on Employment. The transactions contemplated hereunder and the vesting schedule set forth in the Notice of Grant do not: (i) constitute an express or implied promise of continued employment for any period of time, (ii) interfere with right of the Company, the Parent or any Subsidiary or Affiliate to terminate the Participant's employment at any time in accordance with applicable law, or (iii) entitle the Participant to any additional rights under the Plan or under any other welfare or benefit plan of the Company, the Parent or any Subsidiary or Affiliate.

12. Nature of Grant. In accepting the PSUs, the Participant acknowledges that: (a) the grant of the PSUs is voluntary and occasional and does not create any contractual or other right to receive future grants of PSUs, or benefits in lieu of PSUs even if PSUs have been granted repeatedly in the past; (b) all decisions with respect to future Awards of PSUs, if any, will be made by the Company in its sole discretion; (c) the future value of the underlying Stock is unknown and cannot be predicted with certainty; (d) in consideration of the Award of PSUs, no claim or entitlement to compensation or damages will arise from termination of the PSUs or any diminution in value of the PSUs or Stock received when the PSUs vest resulting from the Participant's termination of employment by the Employer (for any reason whatsoever and whether or not in breach of local employment laws), and the Participant irrevocably releases the Company, the Parent, the Subsidiary and Affiliate from any such claim that may arise; (e) in the

event of involuntary termination of the Participant's employment (whether or not in breach of local employment laws), the Participant's right to receive PSUs and vest under the Plan, if any, will terminate effective as of the date that the Participant is no longer actively employed and will not be extended by any notice period mandated under local law or contract, and the Company will have the exclusive discretion to determine when the Participant is no longer actively employed for purposes of the PSUs; (f) the Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Participant's participation in the Plan, or the Participant's acquisition or sale of the underlying Stock; and (g) the Participant is hereby advised to consult with his or her own personal tax, legal and financial advisors regarding the Participant's participation in the Plan before taking any action related to the Plan.

13. Blackout Periods. The Participant acknowledges that, to the extent the vesting of any PSUs occurs during a "blackout" period wherein certain employees, including the Participant, are precluded from selling Stock, the Administrator retains the right, in its sole discretion, to defer the delivery of the Stock pursuant to the PSUs, except that the Administrator may not exercise its right to defer the Participant's receipt of such Stock if such shares of Stock are specifically covered by a trading plan of the Participant that conforms to the requirements of Rule 10b5-1 of the Exchange Act and the Company's policies and procedures with respect to Rule 10b5-1 trading plans and such trading plan causes such shares to be exempt from any applicable blackout period then in effect. If the receipt of any shares of Stock is deferred hereunder due to the existence of a regularly scheduled blackout period, such shares will be issued to the Participant on the first business day following the termination of such regularly scheduled blackout period, except that in no event will the issuance of such shares be deferred subsequent to March 15th of the year following the year in which such shares vest. If the receipt of any shares of Stock is deferred hereunder due to the existence of a special blackout period, such shares will be issued to the Participant on the first business day following the termination of such special blackout period as determined by the Company's General Counsel or his or her delegate, except that in no event will the issuance of such shares be deferred subsequent to March 15th of the year following the year in which such shares vest. Notwithstanding the foregoing, any deferred shares of Stock will be issued promptly to the Participant prior to the termination of the blackout period in the event the Participant ceases to be subject to the blackout period. The Participant hereby represents that he or she accepts the effect of any such deferral under relevant federal, state and local tax laws or otherwise.

14. Award is Not Transferable. Except to the limited extent provided in Section 6 above, this Award of PSUs and the rights and privileges conferred hereby may not be transferred, assigned, pledged or hypothecated in any way by the Participant (whether by operation of law or otherwise) and may not be subject to sale under execution, attachment or similar process until the Participant has been issued the Stock. Upon any attempt by the Participant to transfer, assign, pledge, hypothecate or otherwise dispose of this Award, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this Award and the rights and privileges conferred hereby immediately will become null and void.

15. Data Privacy. The Participant hereby explicitly and unambiguously consents to the collection, use and disclosure, in electronic or other form, of his or her personal information ("**Data**") by and among, as applicable, the Employer, the Company, the Parent and any Subsidiary or Affiliate for the purpose of implementing, administering and managing the Participant's participation in the Plan as described in this Agreement and any other PSU grant materials, or as reasonably necessary to comply with applicable laws and regulations or to respond to lawful requests for information, such as subpoenas and court orders.

The Participant understands that the Company and the Employer may collect, store, process, and disclose certain personal information about the Participant, including, but not limited to, the Participant's name, home address and telephone number, date of birth, Social Security number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Company, details of all PSUs or any entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in the Participant's favor, for the purpose of implementing, administering and managing the Plan, or as reasonably necessary to comply with applicable laws and regulations or to respond to lawful requests for information, such as subpoenas and court orders.

The Participant understands that Data may be transferred to any third parties assisting in the implementation, administration and management of the Plan, that these recipients may be located in the Participant's country or elsewhere, and that the recipients' countries may have data privacy laws and protections that differ from those in the Participant's country. The Participant authorizes the recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purpose of implementing, administering and managing the Participant's participation in the Plan, including any requisite transfer of such Data as may be required to a third party. Further, the Participant understands that the Participant is providing the consents herein on a purely voluntary basis. If the Participant does not consent, or if the Participant later seeks to revoke his or her consent, his or her employment status or service and career with the Employer will not be adversely affected; the only adverse consequence of refusing or withdrawing his or her consent is that the Company would not be able to grant the Participant PSUs or other equity awards or administer or maintain such awards. Therefore, the Participant understands that refusing or withdrawing his or her consent may affect the Participant's ability to participate in the Plan.

The Participant understands that Participant can obtain additional information about Company's collection, storage, use, and disclosure of personal information in association with the implementation, administration, and management of the Plan, including information regarding rights that Participant may have with regard to such personal information, by consulting with Participant's local human resources representative.

16. Entire Agreement. This Agreement, subject to the terms and conditions of the Plan and the Notice of Grant, represents the entire agreement between the parties with respect to the PSUs.

17. Binding Agreement. Subject to the limitations on the transferability of this Award contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

18. Additional Conditions to Issuance of Certificates for Stock. The Company is not required to issue any certificate or certificates for Stock hereunder prior to fulfillment of all the following conditions: (a) the admission of such Stock to listing on all stock exchanges on which such class of stock is then listed; (b) the completion of any registration or other qualification of such Stock under any state, federal or foreign law or under the rulings or regulations of the Securities and Exchange Commission or any other governmental regulatory body, which the Administrator, in its absolute discretion, deems necessary or advisable; (c) the obtaining of any approval or other clearance from any state, federal or foreign governmental agency, which the Administrator, in its absolute discretion, determines to be necessary or advisable; and (d) the lapse of such reasonable period of time following the date of vesting of the PSUs as the Administrator may establish from time to time for reasons of administrative convenience.

19. Plan Governs. This Agreement is subject to all terms and provisions of the Plan. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Plan, the provisions of the Plan will govern.

20. Administrator Authority. Participant acknowledges that determination of the number of shares of Stock earned under this Award is subject to determination by the Administrator of achievement of the performance targets set forth on the Performance Schedule. The Administrator has the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules. All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon the Participant, the Company, the Employer and all other interested persons. No member of the Administrator is personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

21. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

22. Cancellation, Rescission and Recoupment of Award. Participant hereby acknowledges that this Award and any shares of Stock issued pursuant to this Award are subject to cancellation, rescission, clawback, repayment or other action at the discretion of the Board or the Committee as set forth in the provisions of the Plan regarding the clawback or recoupment of Awards in accordance with any clawback policy adopted by the Company pursuant to the listing standards of any national securities exchange or association on which the Company’s securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law, in the event of a restatement of incorrect financial results or if Participant is terminated for Cause. In addition, the Administrator has the discretion to require Participant to reimburse the Company for all or any portion of the Stock issued pursuant to this Award, or the value thereof, if:

(a) the payment was predicated upon the achievement of certain financial results that were subsequently the subject of a material financial restatement;

(b) in the view of the Board or the Committee, the Participant engaged in fraud or misconduct that caused or partially caused the need for a material financial restatement by the Company or any substantial affiliate; and

(c) a lower vesting would have occurred based upon the restated financial results.

In each such instance, upon the determination of the Committee to require recoupment of a previously issued number of shares of Stock under this Agreement, the Company will, to the extent practicable and allowable under applicable laws, require reimbursement of any number of shares of Stock, or the value thereof, issued for the relevant period that exceeded the lower number of shares of Stock that would have been issued based on the restated financial results, except that the Company may not seek to recover shares of Stock issued more than three years prior to the date the applicable restatement is disclosed.

23. Section 409A Exemption. It is intended that the Award satisfy, to the greatest extent possible, the exemption from the application of Section 409A of the Code provided under Treasury Regulation Section 1.409A-1(b)(4) ("**Section 409A**") and comply with Section 409A, and the Award will be so interpreted and administered. Notwithstanding the foregoing, if the Company determines that the Award may not either be exempt from or compliant with Section 409A, the Company may, with the Participant's prior written consent, adopt such amendments to this Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Company determines are necessary or appropriate to (i) exempt the Award from Section 409A and preserve the intended tax treatment of the Award, or (ii) comply with the requirements of Section 409A, it being understood that the Company has no obligation to adopt any such amendment, policy or procedure or take any such other action, and in any event, no such action will reduce the amount of compensation that is owed to the Participant under this Award without the Participant's prior written consent.

24. Agreement Severable. If any provision in this Agreement is held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

25. Notice of Governing Law. This Agreement will be governed by the internal substantive laws, but not the choice of law rules, of the State of Delaware.

26. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision hereof will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each and every right hereunder is cumulative and may be exercised in part or in whole from time to time.

27. Notices. Any notice that either party hereto may be required or permitted to give the other must be in writing and may be delivered personally or by mail, postage prepaid, addressed to the Company, at the address provided below, and the Participant at his or her address as shown on the Company's or the Employer's payroll records, or to such other address as the Participant, by notice to the Company, may designate in writing from time to time.

To the Company: VMware, Inc.

3401 Hillview Avenue
Palo Alto, CA 94304
Attention: Legal Department

The Participant's signature below indicates the Participant's agreement and understanding that this Award is subject to and governed by the terms and conditions of the Plan and this Agreement including, without limitation, Section 22 above. The Participant acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, which are incorporated herein by reference. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and Agreement.

PARTICIPANT

Signature

Print Name

Date: ________________________

Exhibit A

Performance Schedule

SUBSIDIARIES OF VMWARE, INC.

SUBSIDIARIES		STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION
3401 Hillview LLC		Delaware
A.W.S. Holding, LLC		Delaware
AetherPal LLC		Delaware
AirWatch LLC		Delaware
Avi Networks B.V.		Netherlands
Avi Networks India Private Limited		India
Avi Networks International, Inc.		Delaware
Avi Networks, LLC		Delaware
BitRock, Inc.		Delaware
BitRock, S.L.		Spain
Carbon Black, LLC		Delaware
CloudHealth Technologies, LLC		Delaware
Datrium EMEA Ltd.		United Kingdom
Datrium Holdings, Inc.		Delaware
Datrium India Software Private Ltd.		India
Datrium, LLC		Delaware
GoPivotal (UK) Limited		United Kingdom
GoPivotal Singapore Pte. Limited		Singapore
GoPivotal Software India Private Limited		India
Lastline (UK) Limited		United Kingdom
Lastline G.K.		Japan
Lastline Technologies Private Limited		India
Lastline, LLC		Delaware
Nicira, Inc.		Delaware
Nyansa, Inc.		Delaware
Octarine Labs, LLC		Delaware
Pivotal Labs Sydney Pty Ltd		Australia
Pivotal Software Australia Pty Limited		Australia
Pivotal Software Deutschland GmbH		Germany
Pivotal Software, Inc.		Delaware
PT VMware Software Indonesia		Indonesia
Salt Stack, LLC		Delaware
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 Alpha LLC		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 PHILIPPINES INC.		Philippines
VMware Poland sp. Z.o.o.		Poland
VMware QFC LLC		Qatar
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 Technology Holdings Limited		Bermuda
VMware (Thailand) Co., Ltd.		Thailand
VMware Turkey Software Solutions and Services Company Limited		Turkey
VMware UK Limited		United Kingdom
VMware, K.K.		Japan

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-248622, 333-237409, 333-235401, 333-227273, 333-218640, 333-206114, 333-194148, 333-189491, 333-179680, 333-159747 and 333-145402) and Form S-3 (No. 333-237417) of VMware, Inc. of our report dated March 26, 2021 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, 2021

CERTIFICATION OF PRINCIPAL EXECUTIVE 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 Rules13a-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:
   i. 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;
   ii. 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;
   iii. 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
   iv. 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):
   i. 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
   ii. 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, 2021

By: /s/ Zane Rowe

Zane Rowe
Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President
(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 Rules13a-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:

   i. 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;

   ii. 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;

   iii. 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

   iv. 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):

   i. 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

   ii. 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, 2021	By:	/s/ Zane Rowe
			Zane Rowe **Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President** **(Principal Financial Officer)**

Exhibit 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

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 29, 2021 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, 2021	By:	/s/ Zane Rowe
			Zane Rowe **Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President** **(Principal Executive Officer)**

Exhibit 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

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 29, 2021 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, 2021	By:	/s/ Zane Rowe
			Zane Rowe **Chief Financial Officer, Interim Chief Executive Officer and Executive Vice President** **(Principal Financial Officer)**