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

Form 10-Q

(Mark One)

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

For the quarterly period ended November 1, 2019

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**

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

As of December 2, 2019, the number of shares of common stock, par value $0.01 per share, of the registrant outstanding was 409,910,050, of which 109,910,050 shares were Class A common stock and 300,000,000 shares were Class B common stock.

TABLE OF CONTENTS

VMware, Carbon Black, NSX, Workspace ONE, Avi Networks, AetherPal, VMware Cloud, CloudHealth, Horizon, VMware vSAN, VMware Foundation, vSphere, vRealize, Heptio, VeloCloud, PKS, Tanzu, vCloud, and vCloud Air are registered trademarks or trademarks of VMware or its subsidiaries in the United States and other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

PART I
FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Revenue[1]:				
License	$ 974	$ 884	$ 2,853	$ 2,558
Services	1,482	1,316	4,308	3,825
Total revenue	2,456	2,200	7,161	6,383
Operating expenses[2]:				
Cost of license revenue	59	49	160	139
Cost of services revenue	319	266	936	777
Research and development	582	499	1,669	1,433
Sales and marketing	827	707	2,402	2,110
General and administrative	238	178	625	529
Realignment and loss on disposition	—	6	—	9
Operating income	431	495	1,369	1,386
Investment income	12	63	40	168
Interest expense	(40)	(33)	(107)	(101)
Other income (expense), net	263	(180)	(97)	839
Income before income tax	666	345	1,205	2,292
Income tax provision (benefit)	45	11	(4,846)	372
Net income	$ 621	$ 334	$ 6,051	$ 1,920
Net income per weighted-average share, basic for Classes A and B	$ 1.52	$ 0.82	$ 14.77	$ 4.72
Net income per weighted-average share, diluted for Classes A and B	$ 1.50	$ 0.81	$ 14.52	$ 4.64
Weighted-average shares, basic for Classes A and B	409,165	408,708	409,780	406,929
Weighted-average shares, diluted for Classes A and B	414,054	414,477	416,668	413,378

[1] Includes related party revenue as follows (refer to Note C):				
License	$ 375	$ 290	$ 1,048	$ 765
Services	387	260	1,072	694
[2] Includes stock-based compensation as follows:				
Cost of license revenue	$ —	$ —	$ 1	$ 1
Cost of services revenue	18	13	50	37
Research and development	110	98	306	272
Sales and marketing	67	53	183	147
General and administrative	35	28	92	74

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

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Net income	$ 621	$ 334	$ 6,051	$ 1,920
Other comprehensive income (loss):				
Changes in market value of available-for-sale securities:				
Unrealized gains (losses), net of tax provision (benefit) of $—, ($1), $— and ($4)	—	(2)	—	(11)
Changes in market value of effective foreign currency forward contracts:				
Unrealized gains (losses), net of tax provision (benefit) of $— for all periods	(1)	(4)	3	(9)
Reclassification of (gains) losses realized during the period, net of tax (provision) benefit of $— for all periods	(3)	5	(2)	(1)
Net change in market value of effective foreign currency forward contracts	(4)	1	1	(10)
Total other comprehensive income (loss)	(4)	(1)	1	(21)
Total comprehensive income, net of taxes	$ 617	$ 333	$ 6,052	$ 1,899

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

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

	November 1, 2019	February 1, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 2,025	$ 2,830
Short-term investments	—	19
Accounts receivable, net of allowance for doubtful accounts of $4 and $2	1,488	1,576
Due from related parties, net	753	937
Other current assets	375	289
Total current assets	4,641	5,651
Property and equipment, net	1,238	1,133
Other assets	2,663	1,853
Deferred tax assets	5,260	103
Intangible assets, net	910	541
Goodwill	7,290	5,381
Total assets	$ 22,002	$ 14,662
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 156	$ 135
Accrued expenses and other	1,563	1,593
Current portion of long-term debt and other borrowings	1,847	—
Unearned revenue	4,382	3,968
Total current liabilities	7,948	5,696
Note payable to Dell	270	270
Long-term debt	2,730	3,972
Unearned revenue	3,503	3,010
Income tax payable	803	889
Operating lease liabilities	644	—
Other liabilities	290	274
Total liabilities	16,188	14,111
Contingencies (refer to Note D)		
Stockholders' equity:		
Class A common stock, par value $0.01; authorized 2,500,000 shares; issued and outstanding 109,725 and 110,715 shares	1	1
Class B convertible common stock, par value $0.01; authorized 1,000,000 shares; issued and outstanding 300,000 shares	3	3
Additional paid-in capital	46	531
Accumulated other comprehensive income	3	2
Retained earnings	5,761	14
Total stockholders' equity	5,814	551
Total liabilities and stockholders' equity	$ 22,002	$ 14,662

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

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

	Nine Months Ended	
	November 1, 2019	November 2, 2018
Operating activities:		
Net income	$ 6,051	$ 1,920
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	542	465
Stock-based compensation	632	531
Deferred income taxes, net	(5,140)	163
Unrealized (gain) loss on equity securities, net	127	(837)
(Gain) loss on disposition of assets, revaluation and impairment, net	(3)	1
Other	3	10
Changes in assets and liabilities, net of acquisitions:		
Accounts receivable	148	297
Other current assets and other assets	(476)	(264)
Due to/from related parties, net	179	(10)
Accounts payable	17	125
Accrued expenses and other liabilities	(58)	(117)
Income taxes payable	15	10
Unearned revenue	745	357
Net cash provided by operating activities	2,782	2,651
Investing activities:		
Additions to property and equipment	(208)	(178)
Purchases of available-for-sale securities	—	(781)
Sales of available-for-sale securities	—	186
Maturities of available-for-sale securities	—	1,905
Purchases of strategic investments	(18)	(3)
Proceeds from disposition of assets	20	35
Business combinations, net of cash acquired, and purchases of intangible assets	(2,437)	(519)
Net cash paid on disposition of a business	(3)	(11)
Net cash provided by (used in) investing activities	(2,646)	634
Financing activities:		
Proceeds from issuance of common stock	200	181
Borrowings under term loan, net of issuance costs	1,993	—
Repayment of term loan	(1,400)	—
Repurchase of common stock	(1,279)	—
Shares repurchased for tax withholdings on vesting of restricted stock	(393)	(228)
Payment for common control transaction with Dell	—	(8)
Principal payments on finance lease obligations	(1)	—
Net cash used in financing activities	(880)	(55)
Net increase (decrease) in cash, cash equivalents and restricted cash	(744)	3,230
Cash, cash equivalents and restricted cash at beginning of the period	2,894	6,003
Cash, cash equivalents and restricted cash at end of the period	$ 2,150	$ 9,233
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 131	$ 126
Cash paid for taxes, net	283	206
Non-cash items:		
Changes in capital additions, accrued but not paid	$ 5	$ 16

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

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

Three Months Ended November 1, 2019	Class A Common Stock Shares	Class A Common Stock Par Value	Class B Convertible Common Stock Shares	Class B Convertible Common Stock Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Stockholders' Equity
Balance, August 2, 2019	109	$ 1	300	$ 3	$ —	$ 5,188	$ 7	$ 5,199
Proceeds from issuance of common stock	1	—	—	—	94	—	—	94
Issuance of stock-based awards in acquisition	—	—	—	—	10	—	—	10
Repurchase and retirement of common stock	(2)	—	—	—	(194)	(48)	—	(242)
Issuance of restricted stock	2	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	—	—	—	—	(94)	—	—	(94)
Stock-based compensation	—	—	—	—	230	—	—	230
Total other comprehensive income (loss)	—	—	—	—	—	—	(4)	(4)
Net income	—	—	—	—	—	621	—	621
Balance, November 1, 2019	110	$ 1	300	$ 3	$ 46	$ 5,761	$ 3	$ 5,814

Nine Months Ended November 1, 2019	Class A Common Stock Shares	Class A Common Stock Par Value	Class B Convertible Common Stock Shares	Class B Convertible Common Stock Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Stockholders' Equity
Balance, February 1, 2019	111	$ 1	300	$ 3	$ 531	$ 14	$ 2	$ 551
Cumulative effect of adoption of new accounting pronouncements	—	—	—	—	—	3	—	3
Proceeds from issuance of common stock	1	—	—	—	200	—	—	200
Issuance of stock-based awards in acquisition	—	—	—	—	12	—	—	12
Repurchase and retirement of common stock	(7)	—	—	—	(972)	(307)	—	(1,279)
Issuance of restricted stock	7	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(2)	—	—	—	(442)	—	—	(442)
Stock-based compensation	—	—	—	—	632	—	—	632
Credit from tax sharing arrangement	—	—	—	—	85	—	—	85
Total other comprehensive income (loss)	—	—	—	—	—	—	1	1
Net income	—	—	—	—	—	6,051	—	6,051
Balance, November 1, 2019	110	$ 1	300	$ 3	$ 46	$ 5,761	$ 3	$ 5,814

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

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

Three Months Ended November 2, 2018	Class A Common Stock Shares	Class A Common Stock Par Value	Class B Convertible Common Stock Shares	Class B Convertible Common Stock Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Stockholders' Equity
Balance, August 3, 2018	108	$ 1	300	$ 3	$ 1,076	$ 9,362	$ (50)	$ 10,392
Proceeds from issuance of common stock	1	—	—	—	82	—	—	82
Issuance of stock-based awards in acquisition	—	—	—	—	2	—	—	2
Issuance of restricted stock	2	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(1)	—	—	—	(84)	—	—	(84)
Stock-based compensation	—	—	—	—	192	—	—	192
Total other comprehensive income (loss)	—	—	—	—	—	—	(1)	(1)
Common control transaction with Dell	—	—	—	—	—	(6)	—	(6)
Net income	—	—	—	—	—	334	—	334
Balance, November 2, 2018	110	$ 1	300	$ 3	$ 1,268	$ 9,690	$ (51)	$ 10,911

Nine Months Ended November 2, 2018	Class A Common Stock Shares	Class A Common Stock Par Value	Class B Convertible Common Stock Shares	Class B Convertible Common Stock Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Stockholders' Equity
Balance, February 2, 2018	104	$ 1	300	$ 3	$ 844	$ 7,791	$ (15)	$ 8,624
Cumulative effect of adoption of new accounting pronouncements	—	—	—	—	—	(15)	(15)	(30)
Proceeds from issuance of common stock	2	—	—	—	181	—	—	181
Issuance of stock-based awards in acquisition	—	—	—	—	2	—	—	2
Issuance of restricted stock	6	—	—	—	—	—	—	—
Shares withheld for tax withholdings on vesting of restricted stock	(2)	—	—	—	(287)	—	—	(287)
Stock-based compensation	—	—	—	—	531	—	—	531
Amount due from tax sharing arrangement	—	—	—	—	(3)	—	—	(3)
Total other comprehensive income (loss)	—	—	—	—	—	—	(21)	(21)
Common control transaction with Dell	—	—	—	—	—	(6)	—	(6)
Net income	—	—	—	—	—	1,920	—	1,920
Balance, November 2, 2018	110	$ 1	300	$ 3	$ 1,268	$ 9,690	$ (51)	$ 10,911

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

VMware, Inc.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

A. Overview and Basis of Presentation

Company and Background

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

Accounting Principles

The financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”).

Unaudited Interim Financial Information

The accompanying unaudited condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”) for interim financial reporting. In the opinion of management, these unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments and accruals, for a fair statement of VMware’s condensed consolidated results of operations, financial position and cash flows for the periods presented. Results of operations are not necessarily indicative of the results that may be expected for the full fiscal 2020. Certain information and footnote disclosures typically included in annual consolidated financial statements have been condensed or omitted. Accordingly, these unaudited interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes included in VMware’s Form 10-K filed on March 29, 2019.

Effective September 7, 2016, Dell Technologies Inc. (“Dell”) (formerly Denali Holding Inc.) acquired EMC Corporation (“EMC”), VMware’s parent company, including EMC’s majority control of VMware (the “Dell Acquisition”). As of November 1, 2019, Dell controlled 80.7% of VMware’s outstanding common stock and 97.5% of the combined voting power of VMware’s outstanding common stock, including 31 million shares of VMware’s Class A common stock and all of VMware’s Class B common stock.

As VMware is a majority-owned and controlled subsidiary of Dell, its results of operations and financial position are consolidated with Dell’s financial statements. Transactions prior to the effective date of the Dell Acquisition represent transactions only with EMC and its consolidated subsidiaries.

Management believes the assumptions underlying the condensed 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 condensed 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 unaudited condensed consolidated financial statements include the accounts of VMware and subsidiaries in which VMware has a controlling financial interest. 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 condensed consolidated statements of cash flows based upon the nature of the underlying transaction.

Intra-Group Transfer of Intellectual Property

During the second quarter of fiscal 2020, the Company completed an intra-group transfer of certain of its intellectual property rights (the “IP”) to its Irish subsidiary, where its international business is headquartered (the “IP Transfer”). The transaction will change the Company's mix of international income from a lower non-U.S. tax jurisdiction to Ireland, which is subject to a statutory tax rate of 12.5%. However, the Company does not expect its effective income tax rate to increase significantly in fiscal 2020, as it expects the income earned in Ireland will largely be offset by certain tax deductions.

A discrete tax benefit of $4.9 billion was recognized as a deferred tax asset during the second quarter of fiscal 2020. This deferred tax asset was recognized as a result of the book and tax basis difference on the IP transferred to Ireland. The tax amortization related to the IP transferred will be recognized in future periods and any amortization that is unused in a particular year can be carried forward indefinitely under Irish tax laws. The deferred tax asset and the tax benefit were measured based on the Irish tax rate expected to apply in the years the asset will be recovered. The Company expects to realize the deferred tax asset resulting from the IP Transfer and will assess the realizability of the deferred tax asset periodically. The impact of the transaction to net cash provided by or used in operating, investing and financing activities on the condensed consolidated statements of cash flows during the nine months ended November 1, 2019 was not material.

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.

Significant Accounting Policies

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

Upon adoption, VMware recognized ROU assets of $666 million, a liability for lease obligations of $629 million, and an immaterial cumulative-effect adjustment to retained earnings, net of taxes, as of February 2, 2019. The updated standard did not have a material impact on the condensed consolidated statements of income or net cash provided by or used in operating, investing and financing activities on the condensed consolidated statements of cash flows.

Significant accounting policies applicable to leases reflect the adoption of Topic 842. There were no other changes to VMware's significant accounting policies described in the Form 10-K filed on March 29, 2019 that had a material impact on the Company's condensed consolidated financial statements and related notes.

Leases

VMware determines if an arrangement contains a lease at inception by evaluating whether the arrangement conveys the right to use an identified asset and whether the Company obtains substantially all economic benefits from and has the ability to direct the use of the asset. ROU assets resulting from operating leases are included in other assets, and operating lease liabilities are included in accrued expenses and other and operating lease liabilities on the condensed 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 condensed consolidated balance sheets. The current portion of finance lease liabilities included in accrued expenses and other was not material as of November 1, 2019.

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

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

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

The Company subleases certain leased office space to third parties when it determines there is excess leased capacity. Sublease income was not material for all periods presented.

B. Revenue, Unearned Revenue and Remaining Performance Obligations

Revenue

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 condensed consolidated balance sheets. Contract assets were $31 million and $24 million as of November 1, 2019 and February 1, 2019, respectively. Contract asset balances will fluctuate based upon the timing of the transfer of services, billings and customers' acceptance of contractual milestones.

Contract Liabilities

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

Customer Deposits

Customer deposits include prepayments from customers related to amounts received for contracts that include certain cancellation rights. Purchased credits eligible for redemption of VMware's hosted services ("cloud credits") are included in customer deposits until the cloud credit is consumed or is contractually committed to a specific hosted service. Cloud credits 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 November 1, 2019, customer deposits related to customer prepayments and cloud credits of $248 million were included in accrued expenses and other, and $102 million were included in other liabilities on the condensed consolidated balance sheets. As of February 1, 2019, customer deposits related to customer prepayments and cloud credits of $238 million were included in accrued expenses and other, and $60 million were included in other liabilities on the condensed 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 November 1, 2019 and February 1, 2019 were not significant. Deferred commissions included in other assets were $799 million and $756 million as of November 1, 2019 and February 1, 2019, respectively.

Amortization expense for deferred commissions was included in sales and marketing on the condensed consolidated statements of income and was $79 million and $230 million during the three and nine months ended November 1, 2019, respectively, and $64 million and $193 million during the three and nine months ended November 2, 2018, respectively.

Unearned Revenue

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

	November 1, 2019	February 1, 2019
Unearned license revenue	$ 458	$ 255
Unearned software maintenance revenue	6,545	5,972
Unearned professional services revenue	882	751
Total unearned revenue	$ 7,885	$ 6,978

Unearned license revenue is primarily related to the allocated portion of VMware's software-as-a-service ("SaaS") offerings and 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 over time on a ratable basis over the contract duration. The weighted-average remaining contractual term as of November 1, 2019 was approximately two years. In addition, unearned software maintenance revenue also includes the allocated portion of VMware's SaaS offerings. Unearned professional services revenue results primarily from prepaid professional services and is generally recognized as the services are performed.

The following tables summarize unearned revenue activity during the periods presented (table in millions):

	Three Months Ended		
	May 3, 2019	August 2, 2019	November 1, 2019
Balance, beginning of the period	$ 6,978	$ 7,119	$ 7,533
Current period billings	1,506	1,827	1,667
Revenue recognized from amounts previously classified as unearned revenue[1]	(1,365)	(1,420)	(1,469)
Other[2]	—	7	154
Balance, end of the period	$ 7,119	$ 7,533	$ 7,885

[1] Revenue recognized from performance obligations that were fully satisfied upon delivery, such as on-premises license, for contracts that were executed during the periods presented was not included.

[2] Amount for the three months ended November 1, 2019 primarily represents unearned revenue assumed in the acquisition of Carbon Black, Inc. ("Carbon Black"). Refer to Note E for disclosure regarding VMware's acquisition of Carbon Black.

	Three Months Ended		
	May 4, 2018	August 3, 2018	November 2, 2018
Balance, beginning of the period	$ 5,839	$ 5,756	$ 6,030
Current period billings	1,210	1,507	1,464
Revenue recognized from amounts previously classified as unearned revenue[1]	(1,215)	(1,233)	(1,299)
Other	(78)	—	6
Balance, end of the period	$ 5,756	$ 6,030	$ 6,201

[1] Revenue recognized from performance obligations that were fully satisfied upon delivery, such as on-premises license, for contracts that were executed during the periods presented was not included.

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 November 1, 2019, the aggregate transaction price allocated to remaining performance obligations was $8.5 billion, of which approximately 55% is expected to be recognized as revenue over the next twelve months and the remainder thereafter. As of February 1, 2019, the aggregate transaction price allocated to remaining performance obligations was $7.7 billion, of which approximately 56% was expected to be recognized as revenue during fiscal 2020, and the remainder thereafter.

C. Related Parties

The information provided below includes a summary of the transactions entered into with Dell and Dell’s consolidated subsidiaries, including EMC (collectively, “Dell”).

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 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.
- Pursuant to an ongoing distribution agreement, VMware acts as the selling agent for certain products and services of Pivotal Software, Inc. (“Pivotal”), a subsidiary of Dell, in exchange for an agency fee. Under this agreement, cash is collected from the end user by VMware and remitted to Pivotal, net of the contractual agency fee.
- From time to time, VMware and Dell enter into agreements to collaborate on technology projects, and Dell pays VMware for services or reimburses VMware for costs incurred by VMware, in connection with such projects.

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

	Revenue and Receipts				Unearned Revenue	
	Three Months Ended		Nine Months Ended		As of	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018	November 1, 2019	February 1, 2019
Reseller revenue	$ 730	$ 544	$ 2,076	$ 1,435	$ 3,031	$ 2,375
Internal-use revenue	32	5	43	17	49	13
Agency fee revenue	—	—	1	4	—	—
Collaborative technology project receipts	2	1	7	3	n/a	n/a

Customer deposits resulting from transactions with Dell were $151 million and $85 million as of November 1, 2019 and February 1, 2019, respectively.

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

- VMware purchases and leases products and purchases services from Dell.
- From time to time, VMware and Dell enter into agreements to collaborate on technology projects, and VMware pays Dell for services provided to VMware by Dell related to such projects.
- In certain geographic regions where VMware does not have an established legal entity, VMware contracts with Dell subsidiaries for support services and support from Dell personnel who are managed by VMware. The costs incurred by Dell on VMware’s behalf related to these employees are charged to VMware with a mark-up intended to approximate costs that would have been incurred had VMware contracted for such services with an unrelated third party. These

costs are included as expenses on VMware's condensed 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 condensed 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.

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Purchases and leases of products and purchases of services[1]	$ 60	$ 38	$ 196	$ 129
Dell subsidiary support and administrative costs	14	25	60	79

[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 employees from the Dell Technologies Consulting group to VMware. These employees are experienced in providing professional services delivering VMware technology and this transfer centralizes these resources within VMware in order to serve its customers more efficiently and effectively. The transfer is expected to be substantially completed during the fourth quarter of fiscal 2020 and VMware also expects that Dell will resell VMware consulting solutions to its customers.

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 condensed consolidated balance sheets. Revenue recognized on transactions financed through DFS was recorded net of financing fees of $34 million and $29 million during the nine months ended November 1, 2019 and November 2, 2018, respectively. Financing fees during the three months ended November 1, 2019 and November 2, 2018 were not significant.

Tax Sharing Agreement with Dell

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Payments from VMware to Dell, net	$ 43	$ 100	$ 132	$ 103

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 mandatory one-time transition tax on accumulated earnings of foreign subsidiaries (the "Transition Tax") is governed by a letter agreement between Dell, EMC and VMware executed during the first quarter of fiscal 2020 (the "Letter Agreement"). The amounts that VMware pays to Dell for its portion of federal income taxes on Dell's consolidated tax return differ from the amounts VMware would owe on a separate tax return basis and the difference is recognized as a component of additional paid-in capital, generally in the period in which the consolidated tax return is filed. The difference between the amount of tax calculated on a separate tax return basis and the amount of tax calculated pursuant to the tax sharing agreement recorded in additional paid-in capital during the nine months ended November 1, 2019 was $85 million, primarily due to a reduction in Transition Tax liability based on the terms of the Letter Agreement and certain tax attribute determination made by Dell. The amount recognized in additional paid-in capital during the three months ended November 1, 2019 and the three and nine months ended November 2, 2018 was not significant.

During the third quarter of fiscal 2020, VMware and Dell entered into a support agreement in connection with VMware's entry into a definitive agreement to acquire Pivotal, which provides that, prior to the close of the proposed acquisition of Pivotal, VMware and Dell will execute an amended tax sharing agreement that will, 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.

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):

	November 1, 2019	February 1, 2019
Due from related parties, current	$ 906	$ 1,079
Due to related parties, current[1]	153	142
Due from related parties, net, current[2]	$ 753	$ 937
Income tax due to related parties, current	$ 60	$ —
Income tax due to related parties, non-current	492	646

[1] Includes an immaterial amount related to the Company's current operating lease liabilities due to related parties as of November 1, 2019.

[2] 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 condensed consolidated balance sheets as of November 1, 2019.

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

Notes Payable to Dell

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

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

Interest is payable quarterly in arrears at the annual rate of 1.75%. During the three and nine months ended November 1, 2019 and November 2, 2018, interest expense on the notes payable to Dell was not significant.

Pivotal

Prior to Pivotal's initial public offering on April 20, 2018, VMware's previously held preferred shares were converted to shares of non-trading Class B common stock, resulting in VMware having a financial interest of 17% and a voting interest of 24% in Pivotal as of February 1, 2019. As of November 1, 2019, VMware had a financial interest of 16% and a voting interest of 24% in Pivotal. Refer to Note I for disclosure regarding VMware's current investment in Pivotal and Note N for disclosure of VMware's proposed acquisition of Pivotal.

D. Contingencies

Litigation

On April 25, 2019, Cirba Inc. ("Cirba") filed a lawsuit against VMware in the United States District Court for the District of Delaware, alleging two patent infringement claims and three trademark infringement-related claims. On May 6, 2019, Cirba filed a motion seeking a preliminary injunction tied to one of the two patents it alleges VMware infringes. Following a hearing on August 6, 2019, the Court denied Cirba's preliminary injunction motion. On August 20, 2019, VMware filed counterclaims against Cirba, asserting among other claims that Cirba is infringing four VMware patents. The parties are in the fact discovery and claim construction stage of the case. Trial on Cirba's claims is currently scheduled for mid-January 2020. No trial date has yet been set on VMware's claims. On October 22, 2019, VMware filed a separate patent infringement lawsuit against Cirba in the United States District Court for the Eastern District of Virginia, alleging that Cirba also infringes each of these patents. 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 against this matter.

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

On September 11, 2019, Bernard Winkler, a purported stockholder of Carbon Black, filed a class action lawsuit against Carbon Black, the Carbon Black Board and VMware in the United States District Court for the District of Delaware. The complaint alleges, among other things, that the defendants violated Section 14(e) of the Exchange Act by causing a materially incomplete and misleading Schedule 14D-9 Recommendation Statement that was filed with the SEC on September 6, 2019, and against the Carbon Black Board under Section 20(a) of the Exchange Act as control persons. As relief, the complaint seeks, among other things, rescission of the proposed transaction or rescissory damages, an accounting by defendants for all damages caused to the plaintiff and the class, and the award of attorneys' fees and expenses. Approximately seven similar lawsuits were filed in various district courts around the country. To date, no plaintiff has filed a motion seeking an injunction or taken any other substantive action. 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 against this matter.

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 condensed 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 November 1, 2019, 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 foreseeable disposition of such claims and litigation, individually or in the aggregate, would have a material adverse effect on its condensed consolidated financial statements.

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

Business Combinations

Acquisition of Carbon Black

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

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

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

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

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

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

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

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

The pro forma financial information assuming the acquisition 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.

Other Business Combinations completed during the third quarter of fiscal 2020

During the third quarter of fiscal 2020, VMware completed four other acquisitions, which were not material individually to the condensed consolidated financial statements. VMware expects these acquisitions to enhance its product features and capabilities for its Software-Defined Data Center solutions and SaaS offerings. The aggregate purchase price, net of cash acquired for these four acquisitions was $68 million, which primarily included $21 million of identifiable intangible assets and

$48 million of goodwill, of which the majority is not expected to be deductible for tax purposes. The identifiable intangible assets had estimated useful lives of one year to five years and primarily consisted of completed technology.

The pro forma financial information assuming the 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.

Acquisition of Avi Networks, Inc.

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

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

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

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

The pro forma financial information assuming the acquisition 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.

Acquisition of AetherPal, Inc.

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

The pro forma financial information assuming the acquisition 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.

Definite-Lived Intangible Assets, Net

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

	November 1, 2019			
	Weighted-Average Useful Lives (in years)	**Gross Carrying Amount**	**Accumulated Amortization**	**Net Book Value**
Purchased technology	5.4	$ 827	$ (309)	$ 518
Customer relationships and customer lists	7.2	426	(116)	310
Trademarks and tradenames	7.2	111	(49)	62
Other	2.0	21	(1)	20
Total definite-lived intangible assets		$ 1,385	$ (475)	$ 910

	February 1, 2019			
	Weighted-Average Useful Lives (in years)	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Purchased technology	6.3	$ 781	$ (503)	$ 278
Leasehold interest	34.9	149	(33)	116
Customer relationships and customer lists	7.5	193	(96)	97
Trademarks and tradenames	7.9	86	(40)	46
Other	3.9	7	(3)	4
Total definite-lived intangible assets		$ 1,216	$ (675)	$ 541

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

Amortization expense on definite-lived intangible assets was $49 million and $138 million during the three and nine months ended November 1, 2019, respectively, and $39 million and $117 million during the three and nine months ended November 2, 2018, respectively.

Based on intangible assets recorded as of November 1, 2019 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):

Remainder of 2020	$ 62
2021	218
2022	199
2023	168
2024	133
Thereafter	130
Total	$ 910

Goodwill

The following table summarizes the changes in the carrying amount of goodwill during the nine months ended November 1, 2019 (table in millions):

Balance, February 1, 2019	$ 5,381
Increase in goodwill related to business combinations	1,909
Balance, November 1, 2019	$ 7,290

F. Net Income Per Share

Basic net income per share is computed by dividing net income by the weighted-average number of common shares outstanding during the period. Diluted net income per share is computed by dividing net income by the weighted-average number of common shares 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. 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.

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

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):

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Net income	$ 621	$ 334	$ 6,051	$ 1,920
Weighted-average shares, basic for Classes A and B	409,165	408,708	409,780	406,929
Effect of other dilutive securities	4,889	5,769	6,888	6,449
Weighted-average shares, diluted for Classes A and B	414,054	414,477	416,668	413,378
Net income per weighted-average share, basic for Classes A and B	$ 1.52	$ 0.82	$ 14.77	$ 4.72
Net income per weighted-average share, diluted for Classes A and B	$ 1.50	$ 0.81	$ 14.52	$ 4.64

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):

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Anti-dilutive securities:				
Employee stock options	147	50	6	20
Restricted stock units	4,220	219	363	2,045
Employee stock purchase plan	12	—	4	—
Total	4,379	269	373	2,065

G. Cash and Cash Equivalents

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

	November 1, 2019			
	Cost or Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Fair Value
Cash	$ 505	$ —	$ —	$ 505
Cash equivalents:				
Money-market funds	$ 1,468	$ —	$ —	$ 1,468
Demand deposits and time deposits	52	—	—	52
Total cash equivalents	$ 1,520	$ —	$ —	$ 1,520

	February 1, 2019							
	Cost or Amortized Cost		Unrealized Gains		Unrealized Losses		Aggregate Fair Value	
Cash	$	461	$	—	$	—	$	461
Cash equivalents:								
Money-market funds	$	2,316	$	—	$	—	$	2,316
Demand deposits and time deposits		53		—		—		53
Total cash equivalents	$	2,369	$	—	$	—	$	2,369

Restricted Cash

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

	November 1, 2019		February 1, 2019	
Cash and cash equivalents	$	2,025	$	2,830
Restricted cash within other current assets		83		35
Restricted cash within other assets		42		29
Total cash, cash equivalents and restricted cash	$	2,150	$	2,894

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.

H. Debt

Unsecured Senior Notes

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

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

	November 1, 2019		February 1, 2019		Effective Interest Rate
Senior Notes:					
2.30% Senior Note Due August 21, 2020	$	1,250	$	1,250	2.56%
2.95% Senior Note Due August 21, 2022		1,500		1,500	3.17%
3.90% Senior Note Due August 21, 2027		1,250		1,250	4.05%
Total principal amount		4,000		4,000	
Less: unamortized discount		(5)		(7)	
Less: unamortized debt issuance costs		(17)		(21)	
Net carrying amount		3,978		3,972	
Current portion of long-term debt and other borrowings		1,248		—	
Long-term debt	$	2,730	$	3,972	

Interest is payable semiannually in arrears, on February 21 and August 21 of each year. During each of the three and nine months ended November 1, 2019 and November 2, 2018, interest expense was $32 million and $97 million, respectively. Interest expense, which included amortization of discount and issuance costs, was recognized on the condensed consolidated statements of income. The discount and issuance costs are amortized over the term of the Senior Notes on a straight-line basis, which approximates the effective interest method.

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

Refer to Note C 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 ("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 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 November 1, 2019 and February 1, 2019, there were no outstanding borrowings under the Credit Facility. The credit agreement contains certain representations, warranties and covenants. Commitment fees, interest rates and other terms of borrowing under the Credit Facility may vary based on VMware's external credit ratings. The amount paid in connection with the ongoing commitment fee, which is payable quarterly in arrears, was not significant during the three and nine months ended November 1, 2019 and November 2, 2018.

Senior Unsecured Term Loan Facility

On September 26, 2019, VMware entered into a senior unsecured term loan facility (the "Term Loan") with a syndicate of lenders that provides the Company with a borrowing capacity of up to $2.0 billion, for general corporate purposes. The Company may borrow against the Term Loan two times up to its borrowing capacity of $2.0 billion until February 7, 2020. The Term Loan matures on the 364th day following the initial funding under the Term Loan. The Term Loan bears interest at the London interbank offered rate plus 0.75% to 1.25%, or an alternate base rate plus 0.00% to 0.25%, depending on VMware's external credit ratings. As of November 1, 2019, the weighted-average interest rate on the outstanding Term Loan was 2.67%. The Company drew down $2.0 billion and repaid $1.4 billion during the third quarter of fiscal 2020. As of November 1, 2019, the outstanding balance of $599 million, net of unamortized debt issuance costs, on the Term Loan was included in current portion of long-term debt and other borrowings on the condensed consolidated balance sheets, and $1.4 billion remained available for future borrowing purposes. The Term Loan contains certain representations, warranties and covenants. Commitment fees paid and interest expense, including amortization of issuance costs, for the Term Loan were not significant during the three and nine months ended November 1, 2019.

I. Fair Value Measurements

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

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

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

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

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

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

	November 1, 2019		
	Level 1	Level 2	Total
Cash equivalents:			
Money-market funds	$ 1,468	$ —	$ 1,468
Demand deposits and time deposits	—	52	52
Total cash equivalents	$ 1,468	$ 52	$ 1,520

	February 1, 2019		
	Level 1	Level 2	Total
Cash equivalents:			
Money-market funds	$ 2,316	$ —	$ 2,316
Demand deposits and time deposits	—	53	53
Total cash equivalents	$ 2,316	$ 53	$ 2,369
Short-term investments:			
Marketable equity securities	$ 19	$ —	$ 19
Total short-term investments	$ 19	$ —	$ 19

The note payable to Dell, the Senior Notes and the Term Loan were not adjusted to fair value. The fair value of the note payable to Dell was approximately $265 million and $252 million as of November 1, 2019 and February 1, 2019, respectively. The fair value of the Senior Notes was approximately $4.1 billion and $3.9 billion as of November 1, 2019 and February 1, 2019, respectively. The fair value of the Term Loan approximated its carrying value as of November 1, 2019 due to its short-term nature. Fair value for the note payable to Dell, the Senior Notes and the Term Loan was estimated primarily based on observable market interest rates (Level 2 inputs).

VMware offers a deferred compensation plan for eligible employees, which allows participants to defer payment for part or all of their compensation. The net impact to the condensed consolidated statements of income was not significant since changes in the fair value of the assets substantially offset changes in the fair value of the liabilities. As such, assets and liabilities associated with this plan have not been included in the above tables. Assets associated with this plan were the same as the liabilities at approximately $101 million and $77 million as of November 1, 2019 and February 1, 2019, respectively, and are included in other assets and other liabilities on the condensed consolidated balance sheets.

Equity Securities Carried at Fair Value

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

The fair value of VMware's investment in Pivotal was $676 million and $833 million as of November 1, 2019 and February 1, 2019, respectively, and was determined using the quoted market price of Pivotal's Class A common stock as of each reporting period, adjusted for the impact of superior voting rights (Level 2).

During the three and nine months ended November 1, 2019, VMware recognized an unrealized gain of $249 million and an unrealized loss of $157 million, respectively, to adjust its investment in Pivotal to its fair value. During the three and nine months ended November 2, 2018, VMware recognized an unrealized loss of $161 million and an unrealized gain of $851 million, respectively, to adjust its investment in Pivotal to its fair value, including an unrealized gain of $668 million recognized as a result of Pivotal's initial public offering. A discrete tax expense of $61 million and a discrete tax benefit of $39 million for the three and nine months ended November 1, 2019, respectively, were recognized related to the book and tax basis difference on the investment in Pivotal. A discrete tax benefit of $40 million and a discrete tax expense of $196 million, net of the reversal of the previously recorded valuation allowance for the three and nine months ended November 2, 2018, respectively, were recognized related to the book and tax basis difference on the investment in Pivotal. Upon the closing of the proposed acquisition of Pivotal, VMware's investment in Pivotal, including any unrealized gain or loss previously recognized, will be derecognized. The proposed acquisition will be accounted for as a transaction by entities under common control, in which assets and liabilities transferred will be recorded at their historical carrying amounts on the date of the transfer. Refer to Note N for disclosure regarding VMware's proposed acquisition of Pivotal.

Financial information of Pivotal is made publicly available. The following tables include summarized financial information for the second quarter of fiscal 2020 obtained from Pivotal's most recent Form 10-Q filed with the SEC on September 5, 2019 (tables in millions):

	Three Months Ended	Six Months Ended
	August 2, 2019	August 2, 2019
Results of Operations Data:		
Revenue	$ 193	$ 379
Gross profit	132	258
Loss from operations	(31)	(66)
Net loss	(28)	(60)
Net loss attributable to Pivotal	(28)	(60)

	August 2, 2019
Balance Sheet Data:	
Current assets	$ 1,010
Total assets	1,921
Current liabilities	417
Total liabilities	596
Non-controlling interest	1

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 November 1, 2019 and February 1, 2019, investments in privately held companies, which consisted primarily of equity securities, had a carrying value of $146 million and $95 million, respectively, and were included in other assets on the condensed consolidated balance sheets. During the three and nine months ended November 1, 2019, the Company recognized unrealized gains of $12 million and $35 million, respectively, on these securities. All gains and losses on these securities, whether realized or unrealized, are recognized in other income (expense), net on the condensed consolidated statements of income.

J. Derivatives and Hedging Activities

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

Cash Flow Hedges

To mitigate its exposure to foreign currency fluctuations resulting from certain operating expenses denominated in certain foreign currencies, VMware enters into forward contracts that are designated as cash flow hedging instruments as the accounting criteria for such designation are met. Therefore, the effective portion of gains or losses resulting from changes in the fair value of these instruments is initially reported in accumulated other comprehensive income on the condensed consolidated balance sheets and is subsequently reclassified to the related operating expense line item on the condensed consolidated statements of income in the same period that the underlying expenses are incurred. During the three and nine months ended

November 1, 2019 and November 2, 2018, the effective portion of gains or losses reclassified to the condensed consolidated statements of income was not significant. During the three and nine months ended November 2, 2018, interest charges or "forward points" on VMware's forward contracts were excluded from the assessment of hedge effectiveness and were recorded in other income (expense), net on the condensed consolidated statements of income as incurred. Beginning February 2, 2019, the excluded component was recorded to the related operating expense line item on the condensed consolidated statements of income in the same period that the underlying expenses are incurred.

These forward contracts have contractual maturities of twelve months or less, and as of November 1, 2019 and February 1, 2019, outstanding forward contracts had a total notional value of $99 million and $367 million, respectively. The notional value represents the gross amount of foreign currency that will be bought or sold upon maturity of the forward contract.

During the three and nine months ended November 1, 2019 and November 2, 2018, 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 condensed consolidated statements of income.

These forward contracts generally have a contractual maturity of one month, and as of November 1, 2019 and February 1, 2019, outstanding forward contracts had a total notional value of $711 million and $1.2 billion, respectively. The notional value represents the gross amount of foreign currency that will be bought or sold upon maturity of the forward contract.

During the nine months ended November 1, 2019, VMware recognized a gain of $46 million related to the settlement of forward contracts. During the three and nine months ended November 2, 2018, VMware recognized gains of $16 million and $74 million, respectively. The loss recognized during the three months ended November 1, 2019 was not material. Gains and losses are recorded in other income (expense), net on the condensed 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 nine months ended November 1, 2019 resulted in net gains of $20 million. The combined gains and losses related to the settlement of forward contracts and the underlying foreign currency denominated assets and liabilities were not significant during the three months ended November 1, 2019 and the three and nine months ended November 2, 2018. Net gains and losses are recorded in other income (expense), net on the condensed consolidated statements of income.

K. Leases

VMware has operating and finance leases primarily related to office facilities and equipment, which have remaining lease terms of one month to 27 years. During the three and nine months ended November 1, 2019, lease expense recorded in the condensed consolidated statements of income was $43 million and $122 million, respectively.

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

	Three Months Ended November 1, 2019	Nine Months Ended November 1, 2019
Operating lease expense	$ 34	$ 99
Finance lease expense:		
Amortization of ROU assets	$ 2	$ 3
Total finance lease expense	$ 2	$ 3
Short-term lease expense	$ 1	$ 2
Variable lease expense	$ 6	$ 18
Total lease expense	$ 43	$ 122

From time to time, VMware enters into lease arrangements with Dell. Lease expense incurred for arrangements with Dell was not significant during the three and nine months ended November 1, 2019.

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

	Nine Months Ended November 1, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 101
Operating cash flows from finance leases	1
Financing cash flows from finance leases	1
ROU assets obtained in exchange for lease liabilities:	
Operating leases	$ 197
Finance leases	63

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

	November 1, 2019	
	Operating Leases	Finance Leases
ROU assets, non-current[(1)]	$ 774	$ 60
Lease liabilities, current[(2)]	$ 90	$ 3
Lease liabilities, non-current[(3)]	644	57
Total lease liabilities	$ 734	$ 60

(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 condensed consolidated balance sheets.

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

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

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

	November 1, 2019
Weighted-average remaining lease term (in years)	
Operating leases	14.6
Finance leases	9.5
Weighted-average discount rate	
Operating leases	3.5%
Finance leases	3.1%

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

The following represents VMware's future minimum lease payments under non-cancellable operating and finance leases as of November 1, 2019 (table in millions):

	Operating Leases	Finance Leases
Remainder of 2020	$ 25	$ 1
2021	115	6
2022	106	6
2023	91	8
2024	70	7
Thereafter	581	42
Total future minimum lease payments	988	70
Less: Imputed interest	(254)	(10)
Total lease liabilities(1)	$ 734	$ 60

(1) Total lease liabilities as of November 1, 2019 excluded legally binding lease payments for leases signed but not yet commenced of $326 million.

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

2020	$ 109
2021	79
2022	64
2023	54
2024	41
Thereafter	523
Total(1)	$ 870

(1) Total future lease payments as of February 1, 2019 excluded legally binding minimum lease payments for leases signed but not yet commenced of $164 million.

L. Stockholders' Equity

On June 25, 2019, VMware amended its 2007 Equity and Incentive Plan and 2007 Employee Stock Purchase Plan to increase the number of shares available for issuance by 13 million and 9 million shares of Class A common stock, respectively.

VMware Stock Repurchases

VMware purchases stock from time to time in open market transactions, subject to market conditions. The timing of any repurchases and the actual number of shares repurchased will depend on a variety of factors, including VMware's stock price, cash requirements for operations and business combinations, corporate, legal and regulatory requirements and other market and economic conditions. VMware is not obligated to purchase any shares under its stock repurchase programs. Purchases can be discontinued at any time VMware believes additional purchases are not warranted. From time to time, VMware also purchases stock in private transactions, such as those with Dell. All shares repurchased under VMware's stock repurchase programs are retired.

During August 2017, VMware's board of directors authorized the repurchase of up to $1.0 billion of Class A common stock through August 31, 2018. On July 1, 2018, VMware's board of directors extended authorization of the existing stock repurchase program through August 31, 2019. On May 29, 2019, VMware's board of directors authorized the repurchase of up to an additional $1.5 billion of Class A common stock through the end of fiscal 2021. The $1.5 billion authorization is in addition to VMware's ongoing $1.0 billion stock repurchase program authorized in August 2017. In the aggregate, $1.1 billion remained available for repurchase as of November 1, 2019.

The following table summarizes stock repurchase activity during the three and nine months ended November 1, 2019 (aggregate purchase price in millions, shares in thousands):

	Three Months Ended November 1, 2019		Nine Months Ended November 1, 2019	
Aggregate purchase price[(1)]	$	242	$	1,279
Class A common shares repurchased		1,638		7,333
Weighted-average price per share	$	147.65	$	174.37

[(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.

There were no repurchases of VMware Class A common stock during the three and nine months ended November 2, 2018.

VMware Restricted Stock

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

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

The following table summarizes restricted stock activity since February 1, 2019 (units in thousands):

	Number of Units	Weighted-Average Grant Date Fair Value (per unit)	
Outstanding, February 1, 2019	18,215	$	90.06
Granted	6,215		146.97
Vested	(6,693)		77.29
Forfeited	(1,275)		95.33
Outstanding, November 1, 2019	16,462		116.33

The aggregate vesting date fair value of VMware's restricted stock that vested during the nine months ended November 1, 2019 was $1.2 billion. As of November 1, 2019, restricted stock representing 16.5 million shares of VMware's Class A common stock were outstanding, with an aggregate intrinsic value of $2.7 billion based on VMware's closing stock price as of November 1, 2019.

Net Excess Tax Benefits

Net excess tax benefits recognized in connection with stock-based awards are included in income tax provision on the condensed consolidated statements of income. Net excess tax benefits recognized during the three and nine months ended November 1, 2019 were $26 million and $134 million, respectively, and were $23 million and $76 million during the three and nine months ended November 2, 2018, respectively.

Accumulated Other Comprehensive Income (Loss)

The changes in components of accumulated other comprehensive income (loss) during the periods presented were as follows (tables in millions):

	Unrealized Gain (Loss) on Available-for-Sale Securities	Unrealized Gain (Loss) on Forward Contracts	Total
Balance, February 1, 2019	$ 1	$ 1	$ 2
Unrealized gains (losses), net of tax provision (benefit) of $—, $— and $—	—	3	3
Amounts reclassified from accumulated other comprehensive income (loss) to the condensed consolidated statements of income, net of tax (provision) benefit of $—, $— and $—	—	(2)	(2)
Other comprehensive income (loss), net	—	1	1
Balance, November 1, 2019	$ 1	$ 2	$ 3

	Unrealized Gain (Loss) on Available-for-Sale Securities	Unrealized Gain (Loss) on Forward Contracts	Total
Balance, February 2, 2018	$ (15)	$ —	$ (15)
Adjustments related to adoption of ASU 2016-01 and 2018-02	(15)	—	(15)
Unrealized gains (losses), net of tax (benefit) of ($4), $— and ($4)	(11)	(9)	(20)
Amounts reclassified from accumulated other comprehensive income (loss) to the condensed consolidated statements of income, net of tax benefit of $—, $— and $ —	—	(1)	(1)
Other comprehensive income (loss), net	(11)	(10)	(21)
Balance, November 2, 2018	$ (41)	$ (10)	$ (51)

Unrealized gains and losses on VMware's available-for-sale securities are reclassified to investment income on the condensed 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 condensed consolidated statements of income in the same period that the underlying expenses are incurred. The amounts recorded to their related operating expense functional line items on the condensed consolidated statements of income were not significant to the individual functional line items during the periods presented.

M. Segment Information

VMware operates in one reportable operating segment, thus all required financial segment information is included in the condensed consolidated financial statements. Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and assessing performance. VMware's chief operating decision maker allocates resources and assesses performance based upon discrete financial information at the consolidated level.

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Revenue:				
License	$ 974	$ 884	$ 2,853	$ 2,558
Services:				
Software maintenance	1,280	1,138	3,720	3,324
Professional services	202	178	588	501
Total services	1,482	1,316	4,308	3,825
Total revenue(1)	$ 2,456	$ 2,200	$ 7,161	$ 6,383

(1) Includes revenue derived from VMware's hybrid cloud subscription and SaaS offerings, which was $330 million and $919 million during the three and nine months ended November 1, 2019, respectively, and $237 million and $665 million during the three and nine months ended November 2, 2018, respectively. Revenue from hybrid cloud subscription offerings consisted primarily of VMware Cloud Provider Program revenue.

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
United States	$ 1,172	$ 1,052	$ 3,395	$ 3,053
International	1,284	1,148	3,766	3,330
Total	$ 2,456	$ 2,200	$ 7,161	$ 6,383

Revenue by geographic area is based on the ship-to addresses of VMware's customers. No individual country other than the U.S. accounted for 10% or more of revenue during the three and nine months ended November 1, 2019 and November 2, 2018.

Long-lived assets by geographic area, which primarily include property and equipment, net, as of the periods presented were as follows (table in millions):

	November 1, 2019	February 1, 2019
United States	$ 844	$ 831
International	192	106
Total	$ 1,036	$ 937

No individual country other than the U.S. accounted for 10% or more of these assets as of November 1, 2019 and February 1, 2019.

N. Proposed Acquisition of Pivotal

During the third quarter of fiscal 2020, VMware entered into a definitive agreement to acquire Pivotal at a blended price per share of $11.71, comprised of $15.00 per share in cash to the stockholders of Pivotal’s Class A common shares, and VMware’s Class B common shares exchanged for Pivotal’s Class B common shares held by Dell, at an exchange ratio of 0.0550 VMware shares for each Pivotal share. In the aggregate, this transaction will result in an expected net cash payout of $0.8 billion for VMware and issuance of approximately 7.2 million shares of VMware’s Class B common stock to Dell. The impact of equity issued to Dell would increase its ownership stake in VMware by approximately 0.3 percentage points to 81.0% based on the shares outstanding as of November 1, 2019. Pivotal provides a leading cloud-native platform that makes software development and IT operations a strategic advantage for their customers. The acquisition has been approved by the boards of directors of both VMware and Pivotal (each acting upon the unanimous recommendation of a special committee of the board of directors of each company, consisting solely of independent and disinterested directors, authorized to, among other things, negotiate, evaluate and approve or disapprove potential transactions with one another), and is expected to close in the fourth quarter of fiscal 2020, subject to approval of the merger agreement by Pivotal stockholders (including at least a majority of the outstanding shares of Pivotal’s Class A common stock not owned by VMware or any of its affiliates, including Dell), regulatory approvals and other customary closing conditions. The purchase of Pivotal will be accounted for as a transaction by entities under common control. Assets and liabilities transferred will be recorded at their historical carrying amounts on the date of the transfer. Net assets, including goodwill and certain intangible assets, in the amounts that were previously recognized by Dell for Pivotal in connection with Dell’s acquisition of EMC during fiscal 2016 will also be recognized by VMware. This transaction will require retrospective combination of the entities for all periods presented, as if the combination had been in effect since the inception of common control.

ITEM 2. 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 condensed consolidated financial statements and notes to assist in understanding our results of operations and financial condition. Financial information as of November 1, 2019 should be read in conjunction with our consolidated financial statements for the year ended February 1, 2019 contained in our Form 10-K filed on March 29, 2019.

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."

Overview

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

We help customers manage their IT resources across private clouds and complex multi-cloud, multi-device environments by offering solutions across three categories: Software-Defined Data Center ("SDDC"), Hybrid Cloud Computing and End-User Computing ("EUC"). This portfolio supports and addresses the key IT priorities of our customers: accelerating their cloud journey, empowering digital workspaces and transforming networking and security. These VMware solutions enable the digital transformation our customers need as they ready their applications, infrastructure and devices for their future business needs.

We sell our solutions using enterprise agreements ("EAs") or as part of our non-EA, or transactional, business. EAs are comprehensive volume license offerings, offered both directly by us and through certain channel partners that also provide for multi-year maintenance and support. We continue to experience strong renewals, including renewals of our EAs, resulting in additional license sales of both our existing and newer products and solutions.

SDDC or Software-Defined Data Center

Our SDDC technologies form the foundation of our customers' private cloud environments and provide the capabilities for our customers to extend their private cloud to the public cloud and to help them run, manage, secure and connect all their applications across all clouds and devices. During the nine months ended November 1, 2019, we continued to see growth in sales of our SDDC solutions. Future sales growth rates may fluctuate period to period, depending largely upon the extent to which SDDC technologies are included in our larger EAs. For example, sales from our management products were positively impacted during the nine months ended November 1, 2019 as a result of being included in some of the larger strategic deals.

Hybrid Cloud Computing

Our overarching cloud strategy contains three key components: (i) continue to expand beyond compute virtualization in the private cloud; (ii) extend the private cloud into the public cloud; and (iii) connect and secure endpoints across a range of public clouds. Hybrid cloud subscription offerings were primarily comprised of VMware Cloud Provider Program ("VCPP") and included VMware Cloud Services, which enable customers to run, manage, connect and secure their applications across private and public clouds.

During the nine months ended November 1, 2019, revenue growth in our hybrid cloud subscription offerings was primarily driven by our VCPP offerings. We expect CloudHealth by VMware and VMware Cloud on AWS to contribute to revenue growth in fiscal 2020.

During the third quarter of fiscal 2020, we acquired Carbon Black, Inc. ("Carbon Black") to grow our intrinsic security portfolio across network, workload, endpoint, identity and analytics. Also, during the third quarter of fiscal 2020, we entered into a definitive agreement to acquire Pivotal Software, Inc. ("Pivotal"), which is expected to deliver enterprise-grade, Kubernetes-based portfolio for modern applications. The transaction is expected to close during the fourth quarter of fiscal 2020. We expect both the completed Carbon Black acquisition and proposed Pivotal acquisition to contribute to the growth of our revenue derived from our hybrid cloud subscription and software-as-a-service ("SaaS") offerings. In addition, we expect operating margin will be impacted in fiscal 2021 as a result of our incremental investment in our hybrid cloud subscription and SaaS portfolio, including consideration of the recent Carbon Black acquisition.

EUC or End-User Computing

Our complete EUC solution, VMware Workspace ONE ("Workspace ONE"), is a digital workspace platform powered by Unified Endpoint Management and VMware Horizon. Our Unified Endpoint Management business model includes an on-premises solution that we offer through the sale of perpetual licenses, subscription and SaaS solutions. EUC sales continued to increase during the nine months ended November 1, 2019, driven by the adoption of our subscription offerings such as Workspace ONE.

Dell Synergies

We continue joint marketing, sales, branding and product development efforts with Dell Technologies Inc. ("Dell") and other Dell companies to enhance the collective value we deliver to our mutual customers. Our collective business built with Dell continued to create synergies that benefited our sales during the nine months ended November 1, 2019.

Results of Operations

Approximately 70% of our sales are denominated in the United States ("U.S.") dollar, however, in certain countries we also invoice and collect in the following currencies: 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):

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Revenue:								
License	$ 974	$ 884	$ 90	10%	$ 2,853	$ 2,558	$ 296	12%
Services:								
Software maintenance	1,280	1,138	143	13	3,720	3,324	397	12
Professional services	202	178	23	13	588	501	86	17
Total services	1,482	1,316	166	13	4,308	3,825	483	13
Total revenue	$ 2,456	$ 2,200	$ 256	12	$ 7,161	$ 6,383	$ 778	12
Revenue:								
United States	$ 1,172	$ 1,052	$ 120	11%	$ 3,395	$ 3,053	$ 342	11%
International	1,284	1,148	137	12	3,766	3,330	436	13
Total revenue	$ 2,456	$ 2,200	$ 256	12	$ 7,161	$ 6,383	$ 778	12

Revenue from our hybrid cloud subscription offerings consisted primarily of VCPP, and revenue from our SaaS offerings consisted primarily of our Unified Endpoint Management mobile solution within Workspace ONE and newer SaaS offerings, such as CloudHealth by VMware, VMware SD-WAN by VeloCloud and VMware Cloud on AWS. VCPP revenue is included in license revenue and SaaS revenue is included in both license and services revenue. Hybrid cloud subscription offerings, together with our SaaS offerings, increased to greater than 12% of our total revenue during the three and nine months ended November 1, 2019 from greater than 10% of our total revenue during the three and nine months ended November 2, 2018.

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

License Revenue

License revenue during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018, continued to benefit from broad-based growth across our diverse product portfolio and across our U.S. and international geographies. Revenue growth from our VCPP offerings continued to contribute to license revenue growth during the three and nine months ended November 1, 2019. Strength in our large EAs also contributed to license revenue growth during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018.

Services Revenue

During the three and nine months ended November 1, 2019, software maintenance revenue continued to benefit from strong renewals of our EAs, maintenance contracts sold in previous periods and additional maintenance contracts sold in conjunction with new software license sales. In each period presented, customers purchased, on a weighted-average basis, approximately three years of support and maintenance with each new license purchased.

Professional services revenue increased 13% and 17% during the three and nine months ended November 1, 2019, respectively, as compared to the three and nine months ended November 2, 2018. Services we provide through our technical account managers and our continued focus on solution deployments, including our VMware NSX ("NSX") products, management solutions as well as other emerging technology products, contributed to the increase in professional services revenue. We continue to also focus on enabling our partners to deliver professional services for our solutions and as such, our professional services revenue may vary as we continue to leverage our partners. Timing of service engagements will also impact the amount of professional services revenue we recognize during a period.

Unearned Revenue

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

	November 1, 2019	February 1, 2019
Unearned license revenue	$ 458	$ 255
Unearned software maintenance revenue	6,545	5,972
Unearned professional services revenue	882	751
Total unearned revenue	$ 7,885	$ 6,978

Unearned license revenue is primarily related to the allocated portion of our SaaS offerings and 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 over time on a ratable basis over the contract duration. The weighted-average remaining contractual term as of November 1, 2019 was approximately two years. In addition, unearned software maintenance revenue also includes the allocated portion of our SaaS offerings. 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 November 1, 2019, the aggregate transaction price allocated to remaining performance obligations was $8.5 billion, of which approximately 55% is expected to be recognized as revenue over the next twelve months and the remainder thereafter. As of February 1, 2019, the aggregate transaction price allocated to remaining performance obligations was $7.7 billion, of which approximately 56% was expected to be recognized as revenue during fiscal 2020, and the remainder thereafter.

Backlog

Backlog is comprised of unfulfilled purchase orders or unfulfilled executed agreements at the end of a given period and is net of related estimated rebates and marketing development funds. As of November 1, 2019, our total backlog was $71 million. Backlog primarily consists of licenses, maintenance and services. Our backlog related to licenses was $33 million, which we generally expect to deliver and recognize as revenue during the following quarter. Backlog totaling $10 million as of November 1, 2019 was excluded from the remaining performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs. As of February 1, 2019, our total backlog was approximately $449 million and our backlog related to licenses was approximately $147 million. Backlog totaling $34 million as of February 1, 2019 was excluded from the remaining performance obligations because such contracts are subject to cancellation until fulfillment of the performance obligation occurs.

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

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

Our cost of services revenue and operating expenses primarily reflected increasing cash-based employee-related expenses, driven by incremental growth in salaries and headcount, both organic and through acquisitions, across most of our income statement expense categories for the three and nine months ended November 1, 2019. We expect increases in cash-based employee-related expenses to continue.

Cost of License Revenue

Cost of license revenue primarily consists of the cost of fulfillment of our software and 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 SD-WAN offerings includes personnel costs and related overhead associated with the physical and electronic delivery of our products.

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

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Cost of license revenue	$ 59	$ 49	$ 10	21%	$ 159	$ 138	$ 20	15%
Stock-based compensation	—	—	—	98	1	1	—	81
Total expenses	$ 59	$ 49	$ 10	22	$ 160	$ 139	$ 21	15
% of License revenue	*6%*	*5%*			*6%*	*5%*		

Cost of license revenue increased during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018, but remained relatively consistent as a percentage of license revenue. The increase during the nine months ended November 1, 2019 was primarily due to increased amortization of intangible assets of $12 million.

Cost of Services Revenue

Cost of services revenue primarily includes the costs of personnel and related overhead to physically and electronically deliver technical support for our products, all hosted services supporting our SaaS offerings, 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):

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Cost of services revenue	$ 301	$ 253	$ 49	19%	$ 886	$ 740	$ 146	20%
Stock-based compensation	18	13	4	34	50	37	14	38
Total expenses	$ 319	$ 266	$ 53	20	$ 936	$ 777	$ 160	21
% of Services revenue	*22%*	*20%*			*22%*	*20%*		

Cost of services revenue increased during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018. The increase was primarily due to growth in cash-based employee-related expenses of $29 million and $71 million, respectively, during the three and nine months ended November 1, 2019, driven by incremental growth in headcount and salaries. The increase during the nine months ended November 1, 2019 was also due to an increase in costs associated with third-party hosting services to support our SaaS offerings of $29 million and third-party professional services costs of $20 million, resulting from an increase in demand for technical support and services. Equipment and depreciation of $18 million and amortization of intangible assets of $14 million also contributed to the increase during the nine months ended November 1, 2019.

Research and Development Expenses

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

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

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Research and development	$ 472	$ 401	$ 71	18%	$ 1,363	$ 1,161	$ 201	17%
Stock-based compensation	110	98	12	12	306	272	34	13
Total expenses	$ 582	$ 499	$ 83	17	$ 1,669	$ 1,433	$ 236	16
% of Total revenue	*24%*	*23%*			*23%*	*22%*		

Research and development expenses increased during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018. The increase was primarily due to growth in cash-based employee-related expenses of $65 million and $162 million, respectively, during the three and nine months ended November 1, 2019 driven by incremental growth in salaries and headcount, both organic and through acquisitions. The increase was also driven by an increase of stock-based compensation of $12 million and $34 million, respectively, during the three and nine months ended November 1, 2019 primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019. Equipment, depreciation and facilities related costs of $37 million also contributed to the increase during the nine months ended November 1, 2019.

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 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):

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Sales and marketing	$ 760	$ 654	$ 106	16%	$ 2,219	$ 1,963	$ 258	13%
Stock-based compensation	67	53	13	25	183	147	34	23
Total expenses	$ 827	$ 707	$ 119	17	$ 2,402	$ 2,110	$ 292	14
% of Total revenue	*34%*	*32%*			*34%*	*33%*		

Sales and marketing expenses increased during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018. The increase was primarily due to growth in cash-based employee-related expenses of $80 million and $198 million, respectively, during the three and nine months ended November 1, 2019. The growth in cash-based employee-related expenses was driven by incremental growth in salaries and headcount, both organic and through acquisitions, as well as higher commission costs resulting from increased sales volume. The increase was also driven by an increase in stock-based compensation of $13 million and $34 million, respectively, during the three and nine months ended November 1, 2019 primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019. The increase during the nine months ended November 1, 2019 was also driven by increased equipment and depreciation of $19 million and increased amortization of intangible assets of $11 million.

General and Administrative Expenses

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

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

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
General and administrative	$ 203	$ 150	$ 53	35%	$ 533	$ 455	$ 78	17%
Stock-based compensation	35	28	7	27	92	74	18	24
Total expenses	$ 238	$ 178	$ 60	34	$ 625	$ 529	$ 96	18
% of Total revenue	*10%*	*8%*			*9%*	*8%*		

General and administrative expenses increased during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018 primarily due to growth in cash-based employee-related expenses of $25 million and $51 million, driven by incremental growth in headcount and salaries, as well as an increase in compensation expense of $14 million and $30 million, respectively, relating to installment payments due to certain key employees of our previous acquisitions that are subject to future employment requirements. Acquisition-related costs also increased by $26 million and $27 million for the three and nine months ended November 1, 2019, respectively, primarily relating to the Carbon Black acquisition. Stock-based compensation of $18 million also contributed to the increase during the nine months ended November 1, 2019, primarily driven by an increase in restricted stock unit awards granted after the first quarter of fiscal 2019. The increase for the nine months ended November 1, 2019 was also affected by the variability in timing and amount of charitable donations.

Investment Income

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

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Investment income	$ 12	$ 63	$ (51)	(81)%	$ 40	$ 168	$ (128)	(76)%
% of Total revenue	*—%*	*3%*			*1%*	*3%*		

Investment income decreased during the three and nine months ended November 1, 2019 compared to the three and nine months ended November 2, 2018. The decrease was primarily due to a decrease in interest income driven by the decline in our cash equivalents and short-term investments as a result of the liquidation of our fixed income investments that were used primarily to fund the $11.0 billion special cash dividend paid during the fourth quarter of fiscal 2019. We expect investment income during fiscal 2020 to decrease as compared to fiscal 2019, primarily due to lower cash equivalent and short-term investment balances in fiscal 2020.

Other Income (Expense), net

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

	Three Months Ended				Nine Months Ended			
	November 1, 2019	November 2, 2018	$ Change	% Change	November 1, 2019	November 2, 2018	$ Change	% Change
Other income (expense), net	$ 263	$ (180)	$ 442	246%	$ (97)	$ 839	$ (934)	(111)%
% of Total revenue	*11%*	*8%*			*1%*	*13%*		

The change in other income (expense), net was primarily related to our investment in Pivotal. To adjust our investment in Pivotal to its fair value, we recognized an unrealized gain of $249 million and an unrealized loss of $157 million during the three and nine months ended November 1, 2019, respectively. Additionally, unrealized gains of $12 million and $35 million related to our other strategic investments in privately held companies were recognized for the three and nine months ended November 1, 2019, respectively.

During the three and nine months ended November 2, 2018, an unrealized loss of $161 million and an unrealized gain of $851 million, including an unrealized gain of $668 million recognized as a result of Pivotal's initial public offering, respectively, were recognized to adjust our investment in Pivotal to its fair value.

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

Upon the closing of the proposed acquisition of Pivotal, our investment in Pivotal, including any unrealized gain or loss previously recognized, will be derecognized. The proposed acquisition will be accounted for as a transaction by entities under common control, in which assets and liabilities transferred will be recorded at their historical carrying amounts on the date of the transfer. Refer to Note N to the condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for disclosure regarding our proposed acquisition of Pivotal.

Income Tax Provision

	Three Months Ended		Nine Months Ended	
(Dollars in millions)	**November 1, 2019**	**November 2, 2018**	**November 1, 2019**	**November 2, 2018**
Income tax provision (benefit)	$ 45	$ 11	$ (4,846)	$ 372
Effective tax rate	6.7%	3.2%	N/M	16.2%

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

Our quarterly effective income tax rate is based on our estimated annual income tax rate forecast and discrete tax items recognized in the period. During the second quarter of fiscal 2020, we completed an intra-group transfer of certain of our intellectual property rights (the "IP") to our Irish subsidiary, where our international business is headquartered (the "IP Transfer"). The transaction will change our mix of international income from a lower non-U.S. tax jurisdiction to Ireland, which is subject to a statutory tax rate of 12.5%. However, we do not expect our effective income tax rate to increase significantly in fiscal 2020, as we expect the income earned in Ireland will largely be offset by certain tax deductions.

A discrete tax benefit of $4.9 billion was recognized as a deferred tax asset during the nine months ended November 1, 2019. This deferred tax asset was recognized as a result of the book and tax basis difference on the IP transferred to Ireland. The tax amortization related to the IP transferred will be recognized in future periods and any amortization that is unused in a particular year can be carried forward indefinitely under Irish tax laws. The deferred tax asset and the tax benefit were measured based on the Irish tax rate expected to apply in the years the asset will be recovered. We expect to realize the deferred tax asset resulting from the IP Transfer and will assess the realizability of the deferred tax asset periodically. The impact of the transaction to net cash provided by or used in operating, investing and financing activities on our condensed consolidated statements of cash flows during the nine months ended November 1, 2019 was not material.

The change in our effective income tax rate for the three and nine months ended November 1, 2019 as compared to the three and nine months ended November 2, 2018 was primarily driven by a discrete tax expense of $61 million and a discrete tax benefit of $39 million related to our book and tax basis difference on our investment in Pivotal for the three and nine months ended November 1, 2019, respectively, as compared to a discrete tax benefit of $40 million and a discrete tax expense of $196 million, net of the reversal of the previously recorded valuation allowance, for the three and nine months ended November 2, 2018, respectively. The change was also driven by a reduction in our unrecognized tax benefits of $53 million due to the expiration of statutes of limitations.

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

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

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

Our Relationship with Dell

As of November 1, 2019, Dell controlled 31 million shares of Class A common stock and all 300 million shares of Class B common stock, representing 80.7% of our total outstanding shares of common stock and 97.5% of the combined voting power of our outstanding common stock. For a description of related risks, refer to “Risks Related to Our Relationship with Dell” in Part II, Item 1A of this Quarterly Report on Form 10-Q.

The information provided below includes a summary of the transactions entered into with Dell and Dell’s consolidated subsidiaries, including EMC Corporation (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 original equipment manufacturer 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.
- Pursuant to an ongoing distribution agreement, we act as the selling agent for certain products and services of Pivotal, a subsidiary of Dell, in exchange for an agency fee. Under this agreement, cash is collected from the end user by us and remitted to Pivotal, net of the contractual agency fee.
- From time to time, we and Dell enter into agreements to collaborate on technology projects, and Dell pays us for services or reimburses us for costs incurred by us, in connection with such projects.

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

	Revenue and Receipts				Unearned Revenue	
	Three Months Ended		Nine Months Ended		As of	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018	November 1, 2019	February 1, 2019
Reseller revenue	$ 730	$ 544	$ 2,076	$ 1,435	$ 3,031	$ 2,375
Internal-use revenue	32	5	43	17	49	13
Agency fee revenue	—	—	1	4	—	—
Collaborative technology project receipts	2	1	7	3	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 $151 million and $85 million as of November 1, 2019 and February 1, 2019, respectively.

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

- We purchase and lease products and purchase services from Dell.
- From time to time, we and Dell enter into agreements to collaborate on technology projects, and we pay Dell for services provided to us by Dell related to such projects.

- In certain geographic regions where we do not have an established legal entity, we contract with Dell subsidiaries for support services and support from Dell personnel who are managed by us. The costs incurred by Dell on our behalf related to these employees are charged to us with a mark-up intended to approximate costs that would have been incurred had we contracted for such services with an unrelated third party. These costs are included as expenses on our condensed 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 condensed 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.

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Purchases and leases of products and purchases of services[1]	$ 60	$ 38	$ 196	$ 129
Dell subsidiary support and administrative costs	14	25	60	79

[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 employees from the Dell Technologies Consulting group to us. These employees are experienced in providing professional services delivering our technology and this transfer centralizes these resources within the Company in order to serve our customers more efficiently and effectively. The transfer is expected to be substantially completed during the fourth quarter of fiscal 2020 and we also expect that Dell will resell our consulting solutions to our customers.

Dell Financial Services ("DFS")

DFS provided financing to certain of our end users at our end users' discretion. Upon acceptance of the financing arrangement by both our end users and DFS, amounts classified as trade accounts receivable are reclassified to due from related parties, net on the condensed consolidated balance sheets. Revenue recognized on transactions financed through DFS was recorded net of financing fees of $34 million and $29 million during the nine months ended November 1, 2019 and November 2, 2018, respectively. Financing fees during the three months ended November 1, 2019 and November 2, 2018 were not significant.

Tax Sharing Agreement with Dell

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

	Three Months Ended		Nine Months Ended	
	November 1, 2019	November 2, 2018	November 1, 2019	November 2, 2018
Payments from VMware to Dell, net	$ 43	$ 100	$ 132	$ 103

Payments from us to Dell under the tax sharing agreement relate to our 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. Our portion of the mandatory one-time transition tax on accumulated earnings of foreign subsidiaries (the "Transition Tax") is governed by a letter agreement between Dell, EMC Corporation and us executed during the first quarter of fiscal 2020 (the "Letter Agreement"). The amounts that we pay to Dell for our portion of federal income taxes on Dell's consolidated tax return differ from the amounts we would owe on a separate tax return basis and the difference is recognized as a component of additional paid-in capital, generally in the period in which the consolidated tax return is filed. The difference between the amount of tax calculated on a separate tax return basis and the amount of tax calculated pursuant to the tax sharing agreement recorded in additional paid-in capital during the nine months ended November 1, 2019 was $85 million, primarily due to a reduction in Transition Tax liability based on the terms of the Letter Agreement and certain tax attribute determination made by Dell. The amount recognized in additional paid-in capital during the three months ended November 1, 2019 and the three and nine months ended November 2, 2018 was not significant.

During the third quarter of fiscal 2020, we and Dell entered into a support agreement in connection with our entry into a definitive agreement to acquire Pivotal, which provides that, prior to the close of the proposed acquisition of Pivotal, we and Dell will execute an amended tax sharing agreement that will, subject to certain exceptions, generally limit our maximum annual tax liability to Dell to the amount we would owe on a separate tax return basis.

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):

	November 1, 2019	February 1, 2019
Due from related parties, current	$ 906	$ 1,079
Due to related parties, current[1]	153	142
Due from related parties, net, current[2]	$ 753	$ 937
Income tax due to related parties, current	$ 60	$ —
Income tax due to related parties, non-current	492	646

[1] Includes an immaterial amount related to our current operating lease liabilities due to related parties as of November 1, 2019.

[2] 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 condensed consolidated balance sheets as of November 1, 2019.

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

Notes Payable to Dell

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

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

Interest is payable quarterly in arrears at the annual rate of 1.75%. During the three and nine months ended November 1, 2019 and November 2, 2018, interest expense on the notes payable to Dell was not significant.

Pivotal

Prior to Pivotal's initial public offering on April 20, 2018, our previously held preferred shares were converted to shares of non-trading Class B common stock, resulting in us having a financial interest of 17% and a voting interest of 24% in Pivotal as of February 1, 2019. As of November 1, 2019, we had a financial interest of 16% and a voting interest of 24% in Pivotal. During the three and nine months ended November 1, 2019, we recognized an unrealized gain of $249 million and an unrealized loss of $157 million, respectively, to adjust our investment in Pivotal to its fair value. During the three and nine months ended November 2, 2018, we recognized an unrealized loss of $161 million and an unrealized gain of $851 million, respectively, to adjust our investment in Pivotal to its fair value, including an unrealized gain of $668 million recognized as a result of Pivotal's initial public offering.

Refer to Note I and Note N to the condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for disclosure regarding our current investment in Pivotal and our proposed acquisition of Pivotal.

Liquidity and Capital Resources

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

	November 1, 2019	February 1, 2019
Cash and cash equivalents	$ 2,025	$ 2,830
Short-term investments	—	19
Total cash, cash equivalents and short-term investments	$ 2,025	$ 2,849

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. Upon the closing of the proposed acquisition of Pivotal, we will pay $15.00 per share in cash to the stockholders of Pivotal's Class A common shares, and our Class B common shares will be exchanged for Pivotal's Class B common shares held by Dell, resulting in an expected net cash payout of $0.8 billion and issuance of approximately 7.2 million shares of our Class B common stock to Dell. Notwithstanding the impact from the proposed acquisition, we continue to believe that existing cash, cash equivalents and investments, and our borrowing capacity, together with any cash generated from operations, will be sufficient to fund our operations for at least the next twelve months. As a result of the enactment of the 2017 Tax Cuts and Jobs Act ("2017 Tax Act"), we have greater flexibility to repatriate foreign earnings in future periods without significant U.S. tax impact. While we believe these cash sources will be sufficient to fund our operations, our overall level of cash needs may be affected by capital allocation decisions that may include the number and size of acquisitions and stock repurchases, among other things. We remain committed to a balanced capital allocation policy through investing in our product and solution offerings, acquisitions and returning capital to stockholders through share repurchases. Additionally, given the unpredictable nature of our outstanding legal proceedings, an unfavorable resolution of one or more legal proceedings, claims, or investigations could have a negative impact on our overall liquidity.

The 2017 Tax Act imposed a Transition Tax and eliminates U.S. Federal taxes on foreign subsidiary distributions. The Transition Tax was calculated on a separate tax return basis. Our unpaid liabilities related to the Transition Tax as of November 1, 2019 was $557 million, which we expect to pay over the next six years pursuant to the Letter Agreement. Actual tax payments made to Dell pursuant to the tax sharing agreement may differ materially from our total estimated tax liability calculated on a separate tax return basis. The difference between our estimated liability and the amount paid to Dell is recognized as a component of additional paid-in capital, generally in the period in which the consolidated tax return is filed. During the nine months ended November 1, 2019, $84 million was recognized, primarily due to a reduction in Transition Tax liability based on the terms of the Letter Agreement and certain tax attribute determination made by Dell, and the amount was recognized as a component of additional paid-in capital.

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

	Nine Months Ended	
	November 1, 2019	November 2, 2018
Net cash provided by (used in):		
Operating activities	$ 2,782	$ 2,651
Investing activities	(2,646)	634
Financing activities	(880)	(55)
Net increase (decrease) in cash, cash equivalents and restricted cash	$ (744)	$ 3,230

Operating Activities

Cash provided by operating activities increased by $131 million during the nine months ended November 1, 2019 compared to the nine months ended November 2, 2018. Cash provided by operating activities benefited from an increase in cash collections due to increased sales. The increase was partially offset by increased cash payments for operating expenses and employee-related expenses, including salaries, bonuses and commissions, resulting primarily from growth in headcount, as well as decreased investment income from our available-for-sale securities as a result of the liquidation of our fixed income investments used to fund the payment of the $11.0 billion special cash dividend during the fourth quarter of fiscal 2019.

Investing Activities

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

Cash used in investing activities increased by $3.3 billion during the nine months ended November 1, 2019 compared to the nine months ended November 2, 2018, driven primarily by higher business combinations activities during the nine months ended November 1, 2019 primarily due to $2.0 billion paid to acquire Carbon Black. Additionally, cash used in investing activities was also driven by decreased net proceeds from our available-for-sale securities as a result of the liquidation of our fixed income investments used to fund the payment of the $11.0 billion special cash dividend during the fourth quarter of fiscal 2019.

Financing Activities

Cash used in financing activities increased by $825 million during the nine months ended November 1, 2019 compared to the nine months ended November 2, 2018. The increase was primarily a result of an increase in the repurchase of our common stock activity of $1.3 billion, partially offset by borrowing and repayment of our senior unsecured term loan facility (the “Term Loan”), which resulted in net cash inflow of $593 million.

Unsecured Senior Notes

On August 21, 2017, we issued three series of unsecured notes (“Senior Notes”) pursuant to a public debt offering in the aggregate principal amount of $4.0 billion.

The carrying value of the Senior Notes as of November 1, 2019 was as follows (amounts in millions):

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

Interest is payable semiannually in arrears, on February 21 and August 21 of each year. During each of the nine months ended November 1, 2019 and November 2, 2018, $122 million was paid for interest related to the Senior Notes.

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

Revolving Credit Facility

On September 12, 2017, we entered into a 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 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 November 1, 2019, there were no outstanding borrowings under the Credit Facility.

Senior Unsecured Term Loan Facility

On September 26, 2019, we entered into the Term Loan with a syndicate of lenders that provides us with a borrowing capacity of up to $2.0 billion, for general corporate purposes. We may borrow against the Term Loan two times up to its borrowing capacity of $2.0 billion until February 7, 2020. The Term Loan matures on the 364th day following the initial funding under the Term Loan. The Term Loan bears interest at the London interbank offered rate plus 0.75% to 1.25%, or an alternate base rate plus 0.00% to 0.25%, depending on our external credit ratings. As of November 1, 2019, the weighted-average interest rate on the outstanding Term Loan was 2.67%. We drew down $2.0 billion and repaid $1.4 billion during the third quarter of fiscal 2020. As of November 1, 2019, the outstanding balance of $599 million, net of unamortized debt issuance costs, on the Term Loan was included in current portion of long-term debt and other borrowings on the condensed consolidated balance sheets, and $1.4 billion remained available for future borrowing purposes. The Term Loan contains certain representations, warranties and covenants. Commitment fees paid and interest expense, including amortization of issuance costs, for the Term Loan were not significant during the three and nine months ended November 1, 2019.

Note Payable to Dell

As of November 1, 2019, the carrying value of the outstanding note payable to Dell due December 1, 2022 was $270 million. Interest is payable quarterly in arrears at the annual rate of 1.75%. The amount paid for interest related to the Note was not significant during the nine months ended November 1, 2019 and November 2, 2018.

Stock Repurchase Program

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

On May 29, 2019, our board of directors authorized the repurchase of up to an additional $1.5 billion of Class A common stock through the end of fiscal 2021. The $1.5 billion authorization is in addition to our ongoing stock repurchase program authorized in August 2017. As of November 1, 2019, the cumulative authorized amount remaining for stock repurchases was $1.1 billion. Refer to Note L to the condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for further discussion.

Critical Accounting Policies and Estimates

In preparing our condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"), we are required to make estimates, assumptions and judgments that affect the amounts reported on our financial statements and the accompanying disclosures. Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. We base our estimates, assumptions and judgments on historical experience and various other factors that we believe to be reasonable under the circumstances. These estimates may change, as new events occur and additional information is obtained, and are recognized in the condensed consolidated financial statements as soon as they become known. Actual results could differ from those estimates and any such differences may be material to our financial statements. We believe that the critical accounting policies and estimates set forth within Part II, Item 7, "Critical Accounting Policies and Estimates" of our Form 10-K filed on March 29, 2019 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.

During the three months ended November 1, 2019, except for the change in critical accounting policies and estimates related to the business combinations described below, there were no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations contained in Part II, Item 7 of our Form 10-K.

Business Combinations

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

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

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

Forward-Looking Statements

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

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.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There were no material changes to our market risk exposures during the nine months ended November 1, 2019. See Part II, Item 7A, “Quantitative and Qualitative Disclosures About Market Risk” of our Form 10-K filed on March 29, 2019 for a detailed discussion of our market risk exposures.

ITEM 4. 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.

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 November 1, 2019 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.

PART II
OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Refer to Note D of the "Notes to Condensed Consolidated Financial Statements" in Part I, Item 1 of this Quarterly Report on Form 10-Q 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 II, Item 1A of this Quarterly Report on Form 10-Q for a discussion of potential risks to our results of operations and financial condition that may arise from legal proceedings.

ITEM 1A. RISK FACTORS

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

Risks Related to Our Business

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 and hybrid cloud-based computing and mobile computing, including our vSphere-based software-defined data center ("SDDC") products such as our vRealize management and automation offerings, VMware vSAN storage virtualization offerings, and network virtualization ("NSX") offerings, as well as our Horizon client virtualization offerings, Unified Endpoint Management mobile device management offerings and our VMware Cloud on AWS offering. We have also been introducing software-as-a-service ("SaaS") versions of our on-premises products, including VMware Horizon Suite and certain Unified Endpoint Management offerings, and are working to extend our comprehensive data center virtualization and container platform into the public cloud and to introduce cloud products and services by investing in cloud and SaaS initiatives and partnering with public cloud providers such as Amazon Web Services ("AWS") and IBM. Additionally, we announced the availability of Azure VMware Solutions in May 2019 and Google Cloud VMware Solution in July 2019, each through our partnership with CloudSimple, and the availability of Oracle Cloud VMware Solution in September 2019. Recently, VMware has also begun to build, invest in, and acquire a range of SaaS and cloud-native technologies and products, including those acquired through our Heptio Inc., CloudHealth Technologies, Inc., and VeloCloud Networks, Inc. ("VeloCloud") acquisitions, and we have launched managed subscription services such as VMware Cloud on AWS Outposts and our VMware Cloud on Dell EMC. In October 2019, we completed the acquisition of Carbon Black, Inc. ("Carbon Black"), which will form the nucleus of VMware's new security business unit focused on helping to provide advanced cybersecurity protection to customers. Additionally, our proposed acquisition of Pivotal, which is expected to close in the fourth quarter of fiscal 2020, will significantly increase our presence in the cloud native applications segment. These 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 and hybrid cloud solutions and our client virtualization and mobile device management solutions. As the market for our server virtualization products continues to mature, and the scale of our business continues to increase, our rate of revenue growth increasingly depends upon the success of our newer product and service offerings. To the extent that our newer products and services are adopted more slowly than revenue growth in our established server virtualization offerings declines, our revenue growth rates may slow materially or our revenue may decline substantially, we may fail to realize returns on our investments in new initiatives and our operating results could be materially adversely affected.

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

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

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

The virtualization, container, cloud computing, end-user computing 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 public 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 AWS and Microsoft. Many of these cloud providers are partnering with on-premises hardware vendors to deliver their cloud platform as an on-premises solution, including Azure Stack and AWS Outposts. In fiscal 2018, we made VMware Cloud on AWS, a strategic alliance with AWS to deliver a vSphere-based cloud service running in AWS data centers, available in certain geographies. Our strategic alliance with AWS may also be seen as competitive with VCPP offerings and adversely affect our relationship with VCPP partners, while some VCPP partners may elect to include 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 VMware’s on-premises and hybrid 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 security business unit 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. Carbon Black’s competitors include legacy antivirus solution providers such as McAfee and Symantec, a division of Broadcom Inc., 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 Cloud Back endpoint security offerings and new combined offerings we expect to develop and introduce in the future will enable us to provide an integrated security offering with significant advantages over our competitors’ current offerings, our ability to gain traction and market share as a new entrant into this well-established market segment is uncertain. If our efforts to enter the enterprise security market segment are unsuccessful, our operating results could be materially adversely affected.

Large, diversified enterprise software and hardware companies. These competitors supply a wide variety of products and services to, and have well-established relationships with, our current and prospective end users. For example, small- to medium-sized businesses and companies in emerging markets that are evaluating the adoption of virtualization-based technologies and solutions may be inclined to consider Microsoft solutions because of their existing use of Windows and Office products. Some of these competitors have in the past and may in the future take advantage of their existing relationships to engage in business practices that make our products and services less attractive or more expensive to our end users. For example, in August 2019, Microsoft modified its on-premise 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 appear to provide pricing competition and enable competing vendors to leverage these open source technologies to compete directly with us. A number of enterprise IT vendors have released solutions based on open source technologies that are targeting data center virtualization and private cloud, including Red Hat, now a part of IBM, and Nutanix. VMware is delivering container technologies such as PKS, and Cloud Native Application technologies portfolio with VMware Tanzu. We have also increased our level of commitment to open source projects and communities like the Cloud Native Computing Foundation that are designed to increase the rate at which customers adopt micro-services architectures. The adoption of distributed micro-service application architectures, and their alignment with container technologies, represents an emerging area of competition. As we continue to invest in these areas, we will experience increasing competitive overlap with other cloud native vendors like Red Hat and the large providers of public cloud infrastructure.

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

Our partners and members of our developer and technology partner ecosystem. We face competition from our partners. For example, third parties currently selling our products and services could build and market their own competing products and services or market competing products and services of other vendors. Additionally, as formerly distinct sectors of enterprise IT such as software-based virtualization and hardware-based server, networking and storage solutions converge, we also increasingly compete with companies who are members of our developer and technology partner ecosystem. For example, in July 2019, one of our important partners and customers, IBM, closed its acquisition of Red Hat, one of our competitors in the cloud native applications space. Consequently, we may find it more difficult to continue to work together productively on other projects, and the advantages we derive from our ecosystem could diminish.

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

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

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

Adverse economic conditions may harm our business.

Our business depends on the overall demand for IT and on the economic health of our current and prospective customers. The purchase of our products and services is often discretionary and may involve a significant commitment of capital and other resources. Weak economic conditions or significant uncertainty regarding the stability of financial markets, including as a result of volatility in the stock market, recent changes in tariffs and trade agreements or the imposition of fines or government sanctions, could adversely impact our business, financial condition and operating results in a number of ways, including by lengthening sales cycles, affecting the size of enterprise agreements ("EAs") that customers will commit to, reducing the level of our non-EA transactional sales, lowering prices for our products and services, reducing unit sales and reducing the rate of adoption of our products and services by new customers and the willingness of current customers to purchase upgrades to our existing products and services. For example, a recurrence of the sovereign debt crisis in Europe, repercussions from the United Kingdom's ("U.K.") planned exit from the European Union ("EU") ("Brexit") or that region's failure to sustain its recovery from recession would threaten to suppress demand and our customers' access to credit in that region which is an important market for our products and services. In addition, political and economic instability created by Brexit and trade tensions between the United States ("U.S.") and its trading partners have caused and may continue to cause significant volatility in global financial markets. In response to sustained economic uncertainty, many national and local governments that are current or prospective customers for our products and services, including the U.S. federal government, have made, or threatened to make, significant spending cutbacks which could reduce the amount of government spending on IT and the potential demand for our products and services from the government sector.

Regional economic uncertainty can also result in general and ongoing tightening in the credit markets, lower levels of liquidity, increases in the rates of default and bankruptcy and significant volatility in the credit, equity and fixed income markets. Changes in governmental fiscal, monetary and tax policies may also impact interest rates on credit and debt, which have been at relatively low levels for several years. As a result, current or potential customers may be unable to fund software purchases, which could cause them to delay, decrease or cancel purchases of our products and services. Increases in our cost of borrowing could also impact our ability to access capital markets should we wish to raise additional funding for business investments, which could adversely affect our ability to repay or refinance our outstanding indebtedness, fund future product development and acquisitions or conduct stock buybacks.

The loss of key management personnel could harm our business.

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

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

The software-defined date center, hybrid cloud computing and end-user computing industries are characterized by rapid technological change, changing customer needs, frequent new software product introductions and evolving industry standards. The introduction of third-party solutions embodying new technologies and the emergence of new industry standards could make our existing and future software solutions obsolete and unmarketable. Cloud computing has proven to be a disruptive technology that is altering the way that businesses consume, manage and provide physical IT resources, applications, data and IT services. We may not be able to establish or sustain our thought leadership in the cloud computing and enterprise software fields, and our customers may not view our products and services as cost effective, innovative and best-of-breed, which could result in a reduction in market share and our inability to command a pricing premium over competitor products and services. We may not be able to develop updated products and services that keep pace with technological developments and emerging industry standards, that address the increasingly sophisticated needs of our customers or that interoperate with new or updated operating systems and hardware devices. We may also fail to adequately anticipate and prepare for the commercialization of emerging technologies such as blockchain and the development of new markets and applications for our technology such as the Internet of Things and "edge" computing and thereby fail to take advantage of new market opportunities or fall behind early movers in those markets.

Our ability to react quickly to new technology trends and customer requirements is negatively impacted by the length of our development cycle for new products and services and product and service enhancements, which has frequently been longer than we originally anticipated. This is due in part to the increasing complexity of our product offerings as we increase their interoperability, and enable and maintain their compatibility with multiple IT resources such as public clouds utilized by our customers, which can significantly increase the development time and effort necessary to achieve the interoperability of our offerings while maintaining product quality. When we release significant new versions of our existing offerings, the complexity of our products may require existing customers to remove and replace prior versions in order to take full advantage of substantial new features and capabilities, which may subdue initial demand for the new versions or, conversely, depress demand for existing versions until the customer is ready to purchase and install the newest release. If we are unable to evolve our solutions and offerings in time to respond to and remain ahead of new technological developments, our ability to retain or increase market share and revenue in the software-defined data center, hybrid cloud computing and end-user computing industries could be materially adversely affected. With respect to our SDDC products, if we fail to introduce compelling new features in future upgrades to our vSphere product line, manage the transition to hybrid cloud platforms, develop new or tightly integrate existing applications for our virtualization technology that address customer requirements for integration, automation and management of their IT systems with public cloud resources, overall demand for products and services based on vSphere may decline. Additionally, if we fail to realize returns on investments in our newer NSX virtual networking, hyperconverged infrastructure, hybrid cloud and SaaS, and edge computing initiatives as well as our recently launched security business unit, our operating margins and results of operations will be adversely impacted.

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

We depend upon our IT systems and the systems of SaaS providers to conduct virtually all of our business operations, ranging from our internal operations and product development activities to our marketing and sales efforts and communications with our customers and business partners. Consequently, cyber risks represent a large and growing risk to our business. We are increasingly developing and maintaining large data sets and relying on machine learning, artificial intelligence and analytics to provide services to our customers and partners. Unauthorized parties (which may have included nation states and individuals sponsored by them) have penetrated our network security and our website in the past and such unauthorized parties may do so in the future. Employees or contractors have introduced vulnerabilities in, and enabled the exploitation of, our IT environments in the past and may do so in the future. These cyber-attacks, which are increasing in number and technical sophistication, threaten to misappropriate our proprietary information, cause interruptions of our IT services and commit fraud. Because the techniques used by unauthorized persons to access or sabotage networks change frequently and may not be recognized until launched against a target, we may be unable to anticipate these tactics. Further, if unauthorized access or sabotage remains undetected for an extended period of time, the effects of such breach could be exacerbated. In addition, sophisticated hardware and operating system software and applications that we produce or procure from third parties may contain defects in design or manufacture, including "bugs" and other problems that could unexpectedly interfere with the operation of our systems and processes. Our exposure to cybersecurity threats and negative consequences of cybersecurity breaches will likely increase as our customers conduct more purchase and service transactions online, and as we store increasing amounts of customer data and host or manage parts of customers' businesses in cloud-based IT environments. Additionally, with our recent acquisition of endpoint security provider Carbon Black and the launch of our new security business unit, our products may be targeted by computer hackers seeking to compromise product security.

We are increasingly being targeted for financial gain and fraud by criminal entities. Utilizing techniques such as email, telephone and postal mail solicitation, criminals seek to extort or steal funds from the company and employees. We have also outsourced a number of our business functions to third parties, and we rely upon distributors, resellers, system vendors and systems integrators to sell our products and services. Accordingly, if our cybersecurity systems and those of our contractors, partners and vendors fail to protect against breaches, our ability to conduct our business could be damaged in a number of ways, including:

- sensitive data regarding our business, including intellectual property and other proprietary data, could be stolen;
- our electronic communications systems, including email and other methods, could be disrupted, and our ability to conduct our business operations could be seriously damaged until such systems can be restored and secured;
- our ability to process customer orders and electronically deliver products and services could be degraded, and our distribution channels could be disrupted, resulting in delays in revenue recognition;
- defects and security vulnerabilities could be exploited or introduced into our software products or our hybrid cloud and SaaS offerings and impair or disrupt their availability, thereby damaging the reputation and perceived reliability and security of our products and services and potentially making the data systems of our customers vulnerable to further data loss and cyber incidents; and
- personally identifiable or confidential data of our customers, employees and business partners could be stolen or lost.

Should any of the above events occur, or are perceived to have occurred, we could be subject to significant claims for liability from our customers, we could face regulatory actions and sanctions from governmental agencies under privacy, data protection or other laws, our ability to protect our intellectual property rights could be compromised, our reputation and competitive position could be materially harmed, we could face material losses as the result of successful financial cyber-fraud schemes and we could incur significant costs in order to upgrade our cybersecurity systems and remediate damages. Consequently, our business, financial condition and operating results could be materially adversely affected.

Our operating results may fluctuate significantly.

Our operating results may fluctuate due to a variety of factors, many of which are outside of our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful, and our past results should not be relied upon as an indication of our future performance. In addition, a significant portion of our quarterly sales typically occurs during the last two weeks of the quarter, which generally reflects customer buying patterns for enterprise technology. As a result, our quarterly operating results are difficult to predict even in the near term. If our revenue or operating results fall below the expectations of investors or securities analysts or below any guidance we may provide to the market, the price of our Class A common stock would likely decline substantially.

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

- fluctuations in demand, adoption rates, sales cycles and pricing levels for our products and services;
- changes in customers' budgets for information technology purchases and in the timing of their purchasing decisions;
- the timing of announcements or releases of new or upgraded products and services by us or by our competitors;
- the timing and size of business realignment plans and restructuring charges;
- our ability to maintain scalable internal systems for reporting, order processing, license fulfillment, product delivery, purchasing, billing and general accounting, among other functions;
- our ability to control costs, including our operating expenses;
- the credit risks associated with our distributors, who account for a significant portion of our product revenue and accounts receivable, and our customers;
- the timing of when sales orders are processed, which can cause fluctuations in our backlog and impact our bookings and timing of revenue recognition;
- seasonal factors such as the end of fiscal period budget expenditures by our customers and the timing of holiday and vacation periods;
- renewal rates and the amounts of the renewals for EAs as original EA terms expire;
- the timing and amount of internally developed software development costs that may be capitalized;
- unplanned events that could affect market perception of the quality or cost-effectiveness of our products and solutions;
- fluctuations in the fair value of our investment in Pivotal Software, Inc. ("Pivotal"), which is primarily based on Pivotal's closing stock price on the last trading day of each fiscal quarter;
- increased volatility in the provision for income taxes in periods in which transfers of intellectual property between our legal entities occur; and
- our ability to accurately predict the degree to which customers will elect to purchase our subscription-based offerings in place of licenses to our on-premises offerings.

Acquisitions and divestitures could harm our business and operating results.

We have acquired in the past, and plan to acquire in the future, other businesses, products or technologies. In October 2019, we completed our acquisition of Carbon Black and, in August 2019, we entered into a definitive agreement to acquire Pivotal, subject to the satisfaction of customary closing conditions and requisite approvals. We also from time to time sell or divest businesses, products and technologies. For instance, in May 2017, we sold the VMware vCloud Air business ("vCloud Air") to OVH US LLC. Acquisitions and divestitures involve significant risks and uncertainties, which include:

- disrupting our ongoing operations and diverting management from day-to-day responsibilities;
- increasing our expenses, and adversely impacting our business, financial condition and operating results, including, for example, the dilutive impact on our operating margin and earnings per share that we expect from our acquisition of Carbon Black;
- the costs of integrating business operations and on-boarding personnel, particularly for larger acquisitions such as Carbon Black and the proposed acquisition of Pivotal;
- failure of an acquired business to further our business strategy;
- uncertainties in achieving the expected benefits of an acquisition or disposition, including enhanced revenue, technology, human resources, cost savings, operating efficiencies and other synergies;
- reducing cash available for operations, stock repurchase programs and other uses and resulting in potentially dilutive issuances of equity securities or the incurrence of debt;
- incurring amortization expense related to identifiable intangible assets acquired that could impact our operating results;
- difficulty integrating the operations, systems, technologies, products and personnel of acquired businesses effectively;
- the need to provide transition services in connection with a disposition, such as the sale of vCloud Air, which may result in the diversion of resources and focus;

- difficulty achieving expected business results due to a lack of experience in new markets, products or technologies or the initial dependence on unfamiliar distribution partners or vendors;
- retaining and motivating key personnel from acquired companies;
- declining employee morale and retention issues affecting employees of businesses that we acquire or dispose of, which may result from changes in compensation, or changes in management, reporting relationships, future prospects or the direction of the acquired or disposed business;
- assuming the liabilities of an acquired business, including acquired litigation-related liabilities and regulatory compliance issues, and potential litigation or regulatory action arising from a proposed or completed acquisition;
- lawsuits resulting from an acquisition or disposition;
- maintaining good relationships with customers or business partners of an acquired business or our own customers as a result of any integration of operations or the divestiture of a business upon which our customers rely, such as our recent divestiture of our vCloud Air business;
- unidentified issues not discovered during the diligence process, including issues with the acquired or divested business's intellectual property, product quality, security, privacy practices, accounting practices, regulatory compliance or legal contingencies;
- maintaining or establishing acceptable standards, controls, procedures or policies with respect to an acquired business;
- risks relating to the challenges and costs of closing a transaction, including, for example, with respect to the proposed acquisition of Pivotal, Pivotal's ability to obtain their stockholders' approval, including from a majority of the minority stockholders, as well as completion of customary closing conditions;
- the accounting consequences of certain acquisitions which may vary by deal structure, including, for instance, the need to account for our proposed acquisition of Pivotal as an entity under common control, which will require audited prior period financial statements of both VMware and Pivotal to be combined and recast as if the entities had historically operated as one combined entity; and
- the need to later divest acquired assets at a loss if an acquisition does not meet our expectations.

We are exposed to foreign exchange risks.

Because we conduct business in currencies other than the U.S. dollar but report our operating results in U.S. dollars, we face exposure to fluctuations in currency exchange rates. For example, political and economic instability created by Brexit has resulted in significant volatility in the value of the British pound and other currencies, including the euro. During the nine months ended November 1, 2019, approximately 30% of our sales were invoiced and collected in non-U.S. dollar denominated currencies. The realized gain or loss on foreign currency transactions is dependent upon the types of foreign currency transactions that we enter into, the exchange rates associated with these transactions and changes in those rates, the net realized gain or loss on our foreign currency forward contracts, and other factors. Although we hedge a portion of our foreign currency exposure, a significant fluctuation in exchange rates between the U.S. dollar and foreign currencies may adversely affect our operating results. For example, we experienced a measurable negative impact to our revenue in 2015 due to exchange rate fluctuations. Any future weakening of foreign currency exchange rates against the U.S. dollar would likely result in additional adverse impact on our revenue.

Our $11.0 billion special dividend that we distributed in fiscal 2019 could limit our ability to fund significant future stock repurchases and strategic investments.

On December 28, 2018, we paid a special dividend of $11.0 billion (the "Special Dividend") to our stockholders. With payment of the Special Dividend, our cash, cash equivalents and short-term investments declined significantly. While we believe our remaining cash balances and cash generated by our business operations will be sufficient to fund our operations and pursue our existing stock repurchase program and strategic plans, if our business operations do not generate the cash flows we expect, then our ability to fund future stock repurchases, invest in our business and pursue strategic alternatives, including business acquisitions, will be reduced, which could reduce our ability to manage dilution of our stock and limit our future growth.

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

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

- difficulties in enforcing contracts and collecting accounts receivable and longer payment cycles, especially in emerging markets;
- difficulties in delivering support, training and documentation in certain foreign markets;
- tariffs and trade barriers, which could increase due to the current geopolitical climate, and other regulatory or contractual limitations on our ability to sell or develop our products and services in certain foreign markets;
- changes and instability in government policies and international trade arrangements that could adversely affect the ability of U.S.-based companies to conduct business in non-U.S. markets;
- economic or political instability and security concerns in countries that are important to our international sales and operations;
- difficulties in transferring funds from certain countries;
- increased compliance risks, particularly in emerging markets; and
- difficulties in maintaining appropriate controls relating to revenue recognition practices.

For example, we currently comply with a number of EU regulations that govern our sales, facilities and employees located in the U.K. There is considerable regulatory uncertainty regarding the impact of Brexit on the laws and regulations that we will need to comply with in the U.K. post-Brexit.

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

Also, in December 2015, China enacted an Anti-Terrorism Law that gives local public security and state security authorities the broad discretionary authority to require companies to provide access to their equipment and decryption support in particular cases. Failure to comply with such requests can result in fines and imprisonment. In addition, a broad range of businesses will be required to verify the identities of customers and are prohibited from providing services to customers whose identities are unclear or who refuse to cooperate in the verification process. If we are not able to, or choose not to, comply with these and other information and network security standards that the Chinese government might implement in the future, our business in China may suffer.

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

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

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

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

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

We have $4.0 billion in unsecured notes outstanding as well as an additional unsecured promissory note with an outstanding principal amount of $270 million owed to Dell. We also have a $1.0 billion unsecured revolving credit facility, which is currently undrawn, and a $2.0 billion senior unsecured 364-day term loan facility, which, as of the end of the third quarter of fiscal 2020, had an outstanding balance of $600 million and $1.4 billion remaining for future borrowing through February 7, 2020 (collectively, the "Credit Facilities"). Our current and any future debt may adversely affect our financial condition and future financial results by, among other things:

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

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

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

Additionally, our parent company, Dell, currently has a significant level of debt financing. Accordingly, negative changes to Dell's credit rating could also negatively impact our credit rating and the value and liquidity of any future debt we might raise. Refer to "Liquidity and Capital Resources" in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part I, Item 2 of this Quarterly Report on Form 10-Q for more information on our outstanding indebtedness.

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

Developing our products and services is expensive. In particular, developing and launching disruptive technologies in new areas, as we are continuing to do with our NSX virtual networking, hyperconverged infrastructure, hybrid cloud and SaaS, and edge computing initiatives, requires significant investments of resources and often entails greater risk than incremental investments in existing products and services. Our investment in research and development may not result in marketable products or services or may result in products and services that generate less revenue than we anticipate. Our research and development expenses were approximately 23% of our total revenue during the nine months ended November 1, 2019. Our future plans include significant investments in software research and development and related product opportunities. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. However, we may not receive significant revenue from these investments for several years, if at all.

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

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

We have been, and expect to continue to be, subject to intellectual property infringement claims, including claims by entities that do not have operating businesses of their own and therefore may limit our ability to seek counterclaims for damages and injunctive relief. In addition to monetary judgments, a judgment could also include an injunction or other court order that could prevent us from offering our products. In addition, we might be required to seek a license for the use of such intellectual property, which may not be available on commercially reasonable terms or at all. Alternatively, we may be required to develop non-infringing technology, which could require significant effort and expense and may ultimately not be successful. Third parties may also assert infringement claims against our customers and channel partners, which could require us to initiate or defend potentially protracted and costly litigation on their behalf, regardless of the merits of these claims, because we generally indemnify our customers and channel partners from claims of infringement of proprietary rights of third parties in connection with the use of our products. These matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. Allegations made in the course of regulatory or legal proceedings may also harm our reputation, regardless of whether there is merit to such claims. Furthermore, because litigation and the outcome of regulatory proceedings are inherently unpredictable, our business, financial condition or operating results could be materially affected by an unfavorable resolution of one or more of these proceedings, claims, demands or investigations.

Refer to Note D to the condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for a description of certain claims and litigation.

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

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

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

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

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

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

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

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

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

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

Our increasing focus on developing and marketing IT management and automation and IaaS (including software-defined networking, VCPP-integrated virtual desktop and mobile device, cloud and SaaS) offerings that enable customers to transform their IT systems requires a greater focus on marketing and selling product suites and more holistic solutions, rather than selling on a product-by-product basis. Consequently, we have developed, and must continue to develop, new strategies for marketing and selling our offerings. In addition, marketing and selling new technologies to enterprises requires significant investment of time and resources in order to educate customers on the benefits of our new product offerings. These investments can be costly and the additional effort required to educate both customers and our own sales force can distract from their efforts to sell existing products and services. From time to time, we may choose to reorganize our go-to-market teams in an effort to better leverage investments in our sales efforts by increasing efficiencies and improving customer coverage. These reorganizations can cause short-term disruptions that may negatively impact sales over one or more fiscal periods. For example, during the first quarter of fiscal 2020, our sales in the Americas grew more slowly than in other geographies, which may have been due in part to a reorganization of our go-to-market resources in that region. There is no assurance that this reorganization or similar reorganizations will not negatively impact sales in future quarters. Further, upon entering into new industry segments, we may choose to go to market with hardware appliances that are integrated with our software—as we did when we entered into the SD-WAN space through our acquisition of VeloCloud—which requires us to rapidly develop, deploy and scale new hardware procurement, supply chain and inventory management processes and product support services and integrate them into our ongoing business systems and controls. Similarly, our plans to launch managed subscription services such as VMware Cloud on AWS and VMware Cloud on Dell EMC will require us to implement new methods to deliver and monitor end user services and adjust our model for releasing product upgrades.

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

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

Our products and services are highly technical and may contain or be subject to other suppliers' errors, defects or security vulnerabilities.

Our products and services are highly technical and complex and, when deployed, have contained and may contain errors, defects or security vulnerabilities. Some errors in our products or services may only be discovered after a product or service has been installed and used by customers. Undiscovered vulnerabilities in our products or services could expose our customers to hackers or other unscrupulous third parties who develop and deploy viruses, worms and other malicious software programs that could attack our products or services. Further, our use of open-source software in our offerings can make our products and services vulnerable to additional security risks not posed by proprietary products. In the past, VMware has been made aware of public postings by hackers of portions of our source code. It is possible that the released source code could expose unknown security vulnerabilities in our products and services that could be exploited by hackers or others. VMware products and services are also subject to known and unknown security vulnerabilities resulting from integration with products or services of other companies (such as applications, operating systems or semi-conductors). For example, vulnerabilities in certain microprocessors were publicly announced in 2018 under the names Spectre, Meltdown and Foreshadow. Actual or perceived errors, defects or security vulnerabilities in our products or services could harm our reputation and lead some customers to return products or services, reduce or delay future purchases or use competitive products or services, all of which could negatively impact our business, operating results and stock price.

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

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

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

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

Disruptions to our distribution channels could harm our business.

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

Two of our distributors each accounted for 10% or more of our consolidated revenue during the nine months ended November 1, 2019. 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.

Our 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 SaaS versions of our products, we will need to continue to evolve our processes to meet a number of regulatory, intellectual property, contractual and service compliance challenges. These challenges include compliance with licenses for open source and third-party software embedded in our SaaS offerings, maintaining compliance with export control and privacy regulations, including HIPAA, protecting our services from external threats, maintaining the continuous service levels and data security expected by our customers, preventing the inappropriate use of our services and adapting our go-to-market efforts. The expansion of our SaaS and related cloud 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 SaaS offerings rely upon third-party providers to supply data center space, equipment maintenance and other colocation services and our initiatives to extend our virtualization and container platforms into the public cloud rely upon the ability of our public cloud and VCPP partners to maintain continuous service availability and protect customer data on their services. Although we have entered into various agreements for the lease of data center space, equipment maintenance and other services, third parties could fail to live up to the contractual obligations under those agreements. The failure of a third-party provider to prevent service disruptions, data losses or security breaches may require us to issue credits or refunds or indemnify or otherwise be liable to customers or third parties for damages that may occur and contractual provisions with our third-party providers and public cloud partners may limit our recourse against the third-party provider or public cloud partner responsible for such failure. Additionally, if these third-party providers fail to deliver on their obligations, our reputation could be damaged, our customers could lose confidence in us and our ability to maintain and expand our SaaS offerings would be impaired.

Joint ventures may not yield expected benefits and outcomes.

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

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

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

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

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

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

Contracts with many of our customers include unique and specialized performance requirements. In particular, our contracts with federal, state, local and non-U.S. governmental customers and our arrangements with distributors and resellers who may sell directly to governmental customers are subject to various procurement regulations, contract provisions and other requirements relating to their formation, administration and performance. Any failure by us to comply with provisions in our customer contracts or any violation of government contracting regulations could result in the imposition of various civil and criminal penalties, which may include termination of contracts, forfeiture of profits, suspension of payments and, in the case of our government contracts, fines and suspension from future government contracting. Further, any negative publicity related to our customer contracts or any proceedings surrounding them, regardless of its accuracy, may damage our business and affect our ability to compete for new contracts. In the ordinary course of business, we also receive inquiries from and have ongoing discussions with government entities regarding the compliance of our contracting and sales practices with laws and regulations. A failure in the future to comply with federal and state governmental contracting requirements could result in the termination of customer contracts, our suspension from government work, the imposition of fines or other government sanctions or an inability to compete for new contracts, any of which could adversely affect our business, operating results or financial condition.

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

We may not realize all the economic benefit from our business acquisitions, which could result in an impairment of goodwill or intangibles. As of November 1, 2019, goodwill and amortizable intangible assets were $7.3 billion and $910 million, respectively. We review our goodwill and amortizable intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. We test goodwill for impairment at least annually. Factors that may lead to impairment include a substantial decline in stock price and market capitalization or cash flows, reduced future cash flow estimates related to the assets and slower growth rates in our industry. We may be required to record a significant charge in our financial statements during the period in which any impairment of our goodwill or amortizable intangible assets is determined, which would negatively impact our operating results.

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

We rely on our information systems and those of third parties for processing customer orders, delivering products, providing services and support to our customers, billing and tracking our customer orders, fulfilling contractual obligations, performing accounting operations and otherwise running our business. If our systems fail, our disaster and data recovery planning and capacity may prove insufficient to enable timely recovery of important functions and business records. Any disruption in our information systems and those of the third parties upon whom we rely could have a significant impact on our business.

In addition, we continuously work to enhance our information systems, such as our enterprise resource planning software. The implementation of these types of enhancements is frequently disruptive to the underlying business of an enterprise, which may especially be the case for us due to the size and complexity of our business. Implementation may disrupt internal controls and business processes and could introduce unintended vulnerability to error.

Additionally, our information systems may not support new business models and initiatives and significant investments could be required in order to upgrade them. For example, in fiscal 2019 we implemented new revenue accounting software and during the first quarter of fiscal 2020 we implemented a new lease accounting software in order to facilitate the preparation of financial information related to the adoption of accounting standard updates.

We may have exposure to additional tax liabilities, and our operating results may be adversely impacted by higher than expected tax rates.

As a multinational corporation, we are subject to income taxes as well as non-income based taxes, such as payroll, sales, use, value-added, net worth, property and goods and services taxes, in both the U.S. and various foreign jurisdictions. Our domestic and international tax liabilities are subject to the allocation of revenue and expenses in different jurisdictions and the timing of recognizing revenue and expenses. Significant judgment is required in determining our worldwide provision for income taxes and other tax liabilities. We are subject to income and indirect tax examinations. The Dell-owned EMC consolidated group is routinely under audit by the Internal Revenue Service (“IRS”). All U.S. federal income tax matters have been concluded for years through 2015. In addition, we are under corporate income tax audits in various states and non-U.S. jurisdictions. While we believe we have complied with all applicable income tax laws, a governing tax authority could have a different interpretation of the law and assess us with additional taxes. In addition, regulatory guidance is still forthcoming with respect to the 2017 Tax Cuts and Jobs Act (“2017 Tax Act”) and such guidance may impact our tax provision. Any assessment of additional taxes could materially affect our financial condition and operating results.

Our future effective tax rate may be affected by such factors as changes in tax laws, changes in our business or statutory rates, changing interpretation of existing laws or regulations, the impact of accounting for stock-based compensation and the recognition of excess tax benefits and tax deficiencies within the income tax provision in the period in which they occur, the impact of accounting for business combinations, our proposed acquisition of Pivotal, which will be accounted for as a common control transaction, shifts in the amount of earnings in the U.S. compared with other regions in the world and overall levels of income before tax, changes in our international organization, as well as the expiration of statute of limitations and settlements of audits.

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

Our effective tax rate in the future will depend upon the proportion of our income before provision for income taxes earned in the U.S. and in jurisdictions with a tax rate lower than the U.S. statutory rate. Our non-U.S. earnings are primarily earned by our subsidiaries organized in Ireland where the rate of taxation is lower than our U.S. tax rate, and as such, our annual effective tax rate can be significantly affected by the composition of our earnings in the U.S. and non-U.S. jurisdictions. During October 2014, Ireland announced revisions to its tax regulations that will require foreign earnings of our subsidiaries organized in Ireland to be taxed at higher rates. We will be impacted by the changes in tax laws in Ireland beginning in 2021. In addition, we will be impacted by changes in tax laws in Bermuda and may be impacted by changes in other jurisdictions in 2019 and through 2021. We may proactively make structural changes in Ireland that may reduce the impact to our future tax rates. Currently, there are certain structural changes in Ireland that may be available to multi-national companies. However, due to the acquisition of EMC Corporation (“EMC”), VMware’s parent company, by Dell effective September 7, 2016 (the “Dell Acquisition”), we could be subject to higher tax obligations in the event we executed similar structural changes.

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

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

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

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

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

We prepare our condensed 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. For example, during February 2016, the Financial Accounting Standards Board issued ASU 2016-02, Leases (Topic 842). The updated standard required the recognition of a liability for lease obligations and a corresponding right-of-use asset on the balance sheet, and disclosures of certain information regarding leasing arrangements. We adopted this standard beginning with our first quarter of fiscal 2020 and applied it retrospectively at the beginning of the period of adoption through a cumulative-effect adjustment to retained earnings.

Risks Related to Our Relationship with Dell

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

As of November 1, 2019, Dell beneficially owned 30,679,000 shares of our Class A common stock and all 300,000,000 shares of our Class B common stock, representing 80.7% of the total outstanding shares of common stock or 97.5% of the voting power of outstanding common stock held by EMC, and we are considered a “controlled” company under the rules of the 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, during 2018, Dell announced that it was reviewing its strategic opportunities, including a possible business combination with us, a review that led to Dell’s exchange of its Class V common stock designed to track our financial performance for its Class C common stock (the “Dell Share Exchange”) and our payment of the Special Dividend, both on December 28, 2018. Throughout the 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, with completion of the Dell Share Exchange, 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 creates uncertainty for our stockholders, customers, partners and employees, which could negatively impact sales, make it difficult to attract and retain employees and distract management’s focus from executing on other strategic initiatives.

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

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

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

As of November 1, 2019, Dell controlled 80.7% of the total outstanding shares of common stock, including all of our outstanding Class B common stock, representing 97.5% of the voting power of our total outstanding common stock. Through its control of the Class B common stock, which is generally entitled to 10 votes per share, Dell controls the vote to elect all of our directors and to approve or disapprove all other matters submitted to a stockholder vote.

Prior to a distribution by Dell to its stockholders under Section 355 of the Internal Revenue Code of 1986, as amended (a "355 Distribution"), shares of Class B common stock transferred to any party other than a successor-in-interest or a subsidiary of EMC automatically convert into Class A common stock. Dell's voting control over VMware will continue so long as the shares of Class B common stock it controls continue to represent at least 20% of our outstanding stock. If its ownership falls below 20% of the outstanding shares of our common stock, all outstanding shares of Class B common stock will automatically convert to Class A common stock. If Dell effects a 355 Distribution at a time when it holds shares of Class B common stock, its stockholders will receive Class B common stock. These shares will remain entitled to 10 votes per share, holders of these shares will remain entitled to elect 80% of the total number of directors on our board of directors and the holders of our Class A common stock will continue to have limited ability to influence matters requiring stockholder approval and have limited ability to elect members of our board of directors. Following a 355 Distribution, shares of Class B common stock may convert to Class A common stock if such conversion is approved by VMware stockholders after the 355 Distribution and we have obtained a private letter ruling from the IRS. In January 2014, the IRS announced in Revenue Procedure 2014-3 that, generally, it would no longer issue private letter rulings on 355 Distributions.

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

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

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

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

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

If Dell's level of ownership significantly increases, Dell could unilaterally effect a merger of VMware into Dell without a vote of VMware stockholders or the VMware Board of Directors at a price per share that might not reflect a premium to then-current market prices.

As of November 1, 2019, Dell controlled 80.7% 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. Additionally, we have agreed to issue to Dell shares of our Class B common stock in exchange for its shares in Pivotal upon the closing of our proposed acquisition of Pivotal, which would increase Dell's ownership to 81.0% of VMware's outstanding common stock. 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 August 2019, we announced we entered into a merger agreement with Pivotal, which we expect to close in the fourth quarter of fiscal 2020. We hold a significant ownership interest in Pivotal, which became publicly traded on April 20, 2018. Additionally, in December 2019, personnel in the Dell Technologies Consulting group who provide professional services for VMware product offerings to Dell customers will transfer to VMware's professional services group.

We believe that these related persons transactions provide us a unique opportunity to leverage the respective technical expertise, product strengths and market presence of Dell and its subsidiaries for the benefit of our customers and stockholders while enabling us to compete more effectively with competitors who are much larger than us. However, these transactions may prove not to be successful and may divert our resources or the attention of our management from other opportunities.

Negotiating and implementing these arrangements can be time consuming and cause delays in the introduction of joint product and service offerings and disruptions to VMware's business. We cannot predict whether our stockholders and industry or securities analysts who cover us will react positively to announcements of new related persons transactions with Dell, and such announcements could have a negative impact on our stock price. Our participation in these transactions may also cause certain of our other vendors and ecosystem partners who compete with Dell and its subsidiaries to also view us as their competitors. Additionally, following Pivotal's initial public offering, VMware held a 16% financial interest in the outstanding shares of capital stock in Pivotal, which was accounted for using the fair value option. The fair value of VMware's investment is determined primarily using the quoted market price of Pivotal's Class A common stock. Any volatility in Pivotal's publicly traded Class A common stock therefore introduces a degree of variability to our condensed consolidated balance sheets and statements of income, over which we have little control so long as we maintain our ownership interest.

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, hyper-converged infrastructure and cloud computing. Dell competes with us in these areas now and may engage in increased competition with us in the future. In addition, the intellectual property agreement that we have entered into with EMC (which is controlled by Dell) provides EMC the ability to use our source code and intellectual property, which, subject to limitations, it may use to produce certain products that compete with ours. EMC's rights in this regard extend to its majority-owned subsidiaries, which could include joint ventures where EMC holds a majority position and one or more of our competitors hold minority positions.

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

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

Our existing and potential partner relationships may be negatively affected by our relationship with Dell. We partner with a number of companies that compete with Dell in certain markets in which Dell participates. Dell's control of EMC's majority ownership in us may affect our ability to effectively partner with these companies. These companies may favor our competitors because of our relationship with Dell.

Dell competes with certain of our significant channel, technology and other marketing partners, including IBM and Hewlett-Packard. Pursuant to our certificate of incorporation and other agreements that we have with EMC, EMC and Dell may have the ability to impact our relationship with those of our partners that compete with EMC or Dell, which could have a material adverse effect on our operating results and our ability to pursue opportunities which may otherwise be available to us.

We could be held liable for the tax liabilities of other members of Dell's consolidated tax group, and compared to our historical results as a member of the EMC consolidated tax group, our tax liabilities may increase, fluctuate more widely and be less predictable.

We have historically been included in EMC's consolidated group for U.S. federal income tax purposes, as well as in certain consolidated, combined or unitary groups that include EMC Corporation 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.

Also, under the tax sharing agreement, if it is subsequently determined that the tracking stock issued in connection with the Dell Acquisition and which Dell subsequently eliminated through a share exchange constitutes a taxable distribution, we could be liable for all or a portion of the tax liability, which could have a material adverse effect on our operating results and financial condition.

We have limited ability to resolve favorably any disputes that arise between us and Dell.

Disputes may arise between Dell and us in a number of areas relating to our ongoing relationships, including our reseller, technology and other business agreements with Dell, areas of competitive overlap, strategic initiatives, requests for consent to activities specified in our certificate of incorporation and the terms of our intercompany agreements. We may not be able to resolve any potential conflicts with Dell, and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party.

While we are controlled by Dell, we may not have the leverage to negotiate renewals or amendments to these agreements, if required, on terms as favorable to us as those we would negotiate with an unaffiliated third party, if at all.

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

The Chairman of our Board of Directors, Michael Dell, is also Chairman and CEO of Dell and is a significant stockholder of Dell, and one of our directors, Egon Durbin, is member of the Dell board of directors and managing partner of Silver Lake Partners, which is a significant stockholder of Dell. Another of our directors also holds shares of Dell common stock. Dell, through its controlling voting interest in our outstanding common stock, is entitled to elect 8 of our 9 directors and possesses sufficient voting control to elect the remaining director. Ownership of Dell common stock by our directors and the presence of executive officers or directors of Dell on our board of directors could create, or appear to create, conflicts of interest with respect to matters involving both us and Dell that could have different implications for Dell than they do for us. Our Board has approved resolutions that address corporate opportunities that are presented to our directors that are also directors or officers of Dell. These provisions may not adequately address potential conflicts of interest or ensure that potential conflicts of interest will be resolved in our favor. As a result, we may not be able to take advantage of corporate opportunities presented to individuals who are directors of both us and Dell and we may be precluded from pursuing certain growth initiatives.

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

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

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

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

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

So long as Dell beneficially owns shares of our common stock representing at least a majority of the votes entitled to be cast by the holders of outstanding voting stock, Dell can effectively control and direct our board of directors. Further, the interests of Dell and our other stockholders may diverge. Under these circumstances, it may become difficult for us to recruit independent directors.

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

The financial information covering the periods included in this report does not necessarily reflect what our financial condition, operating results or cash flows would have been had we been a completely independent entity during those periods. In certain geographic regions where we do not have an established legal entity, we contract with Dell subsidiaries for support services and Dell personnel who are managed by us. The costs incurred by Dell on our behalf related to these employees are passed on to us and we are charged a mark-up intended to approximate costs that would have been charged had we contracted for such services with an unrelated third party. These costs are included as expenses on our condensed 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 to Pivotal, 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 three and nine months ended November 1, 2019, we recognized revenue of $762 million and $2.1 billion, respectively, and as of November 1, 2019, $3.1 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 I, Item 2 and Note C to the condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Risks Related to Owning Our Class A Common Stock

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

The trading price of our Class A common stock has fluctuated significantly in the past and could fluctuate substantially in the future due to the factors discussed in this Risk Factors section and elsewhere in this report. The elimination of the trading market for Class V common stock upon completion of the Dell Share Exchange could increase the volatility in the price of our Class A common stock due to our relatively small public float.

Dell, which beneficially owned 80.7% of our outstanding stock as of November 1, 2019, is not restricted from selling its shares and is entitled to certain registration rights. If a significant number of shares enters the public trading markets in a short period of time, the market price of our Class A common stock may decline. In addition, if our Class B common stock is distributed to Dell stockholders and remains outstanding, it would trade separately from and potentially at a premium to our Class A common stock, and could thereby contribute additional volatility to the price of our Class A common stock.

Broad market and industry factors may also decrease the market price of our Class A common stock, regardless of our actual operating performance. The stock market in general and technology companies in particular have often experienced extreme price and volume fluctuations. Our public float is also relatively small due to Dell's holdings, which can result in greater volatility in our stock compared to that of other companies with a market capitalization similar to ours. In addition, in the past, following periods of volatility in the overall market and the market price of a company's securities, securities class action litigation has often been instituted, including against us, and, if not resolved swiftly, can result in substantial costs and a diversion of management's attention and resources.

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

The trading market for our Class A common stock is influenced by the research and reports that industry or securities analysts publish about us, our business, our market or our competitors. If any of the analysts who cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline.

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

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

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

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

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

(a) Sales of Unregistered Securities

None.

(b) Use of Proceeds from Public Offering of Common Stock

None.

(c) Purchases of Equity Securities by the Issuer and Affiliated Purchaser

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

Purchases of Class A common stock during the three months ended November 1, 2019 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)]
August 3 – August 30, 2019	794,100	$ 147.08	794,100	$ 1,180,414,276
August 31 – September 27, 2019	662,000	147.71	662,000	1,082,628,683
September 28 – November 1, 2019	181,700	149.91	181,700	1,055,390,646
	1,637,800	$ 147.65	1,637,800	1,055,390,646

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

(2) Represents the amounts remaining from VMware's $1.0 billion stock repurchase authorization announced on August 14, 2017, which was extended on July 1, 2018 and expires on August 31, 2019. On May 29, 2019, our board of directors authorized the repurchase of up to an additional $1.5 billion of Class A common stock through the end of fiscal 2021. The $1.5 billion authorization is in addition to our ongoing stock repurchase program authorized in August 2017. Amounts remaining exclude commissions.

ITEM 6. EXHIBITS

The Company hereby files, furnishes or incorporates by reference the exhibits listed below:

		Incorporated by Reference			
Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date
2.1	Agreement and Plan of Merger among VMware, Inc., Calistoga Merger Corp. and Carbon Black, Inc. dated as of August 22, 2019	8-K	001-33622	2.1	8/22/19
2.2	Agreement and Plan of Merger among VMware, Inc., Raven Transaction Sub, Inc. and Pivotal Software, Inc. dated as of August 22, 2019	8-K	001-33622	2.1	8/22/19
10.33	Tender and Support Agreement by and among VMware, Inc., Calistoga Merger Corp. and specified stockholders entered into as of August 22, 2019	8-K	001-33622	10.1	8/22/19
10.34	Voting Agreement between VMware, Inc., Ford Motor Company dated as of August 22, 2019	8-K	001-33622	10.1	8/22/19
10.35	Consent and Support Agreement by and among VMware, Inc., Dell Technologies, Inc., and EMC Equity Assets LLC and with respect to Section 5 and 6 EMC Corporation and VMW Holdco LLC	8-K	001-33622	10.2	8/22/19
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				
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

SIGNATURE

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: December 6, 2019

By: /s/ Kevan Krysler

Kevan Krysler
Senior Vice President, Chief Accounting Officer
(Principal Accounting Officer)

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Patrick Gelsinger, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date:	December 6, 2019	By:	/s/ Patrick Gelsinger
			Patrick Gelsinger **Chief Executive Officer** **(Principal Executive Officer)**

Exhibit 31.2

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 quarterly report on Form 10-Q 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:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 6, 2019

By: /s/ Zane Rowe

Zane Rowe
Chief Financial 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, Patrick Gelsinger, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Quarterly Report of VMware, Inc. on Form 10-Q for the fiscal quarter ended November 1, 2019 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-Q fairly presents, in all material respects, the financial condition and results of operations of VMware, Inc.

Date:	December 6, 2019	By:	/s/ Patrick Gelsinger
			Patrick Gelsinger **Chief Executive Officer** **(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 Quarterly Report of VMware, Inc. on Form 10-Q for the fiscal quarter ended November 1, 2019 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-Q fairly presents, in all material respects, the financial condition and results of operations of VMware, Inc.

Date:	December 6, 2019	By:	/s/ Zane Rowe
			Zane Rowe **Chief Financial Officer and Executive Vice President** **(Principal Financial Officer)**