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

FORM 10-Q

(Mark One)

	QUARTERLY REPORT PURSUANT TO SECTION For the q	13 OR 15(d) OF T uarterly period en			ACT OF	1934	
		or					
	TRANSITION REPORT PURSUANT TO SECTION	13 OR 15(d) OF T	HE SE	CURITIES EXCHANGE	ACT OF	1934	
	For the transition period fromtoCon	nmission file numb	er: 00	1-34501			
	JUNIPER	R NETV	VO	RKS, INC	•		
		ne of registrant as sp		,			
	Delaware			7	7-042252	8	
	(State or other jurisdiction of incorporation or organization)			(I.R.S. Empl	oyer Identi	fication No.)	
	1133 Innovation Way						
	Sunnyvale, California				94089		
	(Address of principal executive offices)				(Zip code)		
	(Registran	(408) 745-20 at's telephone number		ing area code)			
	Securities 1	registered pursuant to	Section	12(b) of the Act:			
	Title of each class Common Stock, par value \$0.00001 per share	Trading Sym JNPR	bol	Name of each exchang New York Sto	•	registered	
preced	Indicate by check mark whether the registrant (1) has filed all ing 12 months (or for such shorter period that the registrant was No \Box						
(§232.4	Indicate by check mark whether the registrant has submitted ele 405 of this chapter) during the preceding 12 months (or for such si					2	ntion S-T
compa	Indicate by check mark whether the registrant is a large accelerate ny. See the definitions of "large accelerated filer," "accelerated filer."						
Large a	accelerated filer \(\sum \) Accelerated filer \(\sup \) \(\)	Non-accelerated filer		Smaller reporting company		Emerging growth company	
financi	If an emerging growth company, indicate by check mark if the al accounting standards provided pursuant to Section 13(a) of the		d not to	use the extended transition	period for	complying with any new o	r revised
	Indicate by check mark whether the registrant is a shell company	(as defined in Rule 1	2b-2 of	the Exchange Act). Yes 🗆 N	No ⊠		
	There were 331,352,347 shares of the Company's Common Stock	k, par value \$0.00001	, outsta	nding as of April 30, 2020.			

Table of Contents

PART I - FINANCIAL INFORMATION

	Page
Item 1. Financial Statements (Unaudited)	<u>3</u>
Condensed Consolidated Statements of Operations Three Months Ended March 31, 2020 and March 31, 2019	<u>3</u>
Condensed Consolidated Statements of Comprehensive Income Three Months Ended March 31, 2020 and March 31, 2019	<u>4</u>
Condensed Consolidated Balance Sheets March 31, 2020 and December 31, 2019	<u>5</u>
Condensed Consolidated Statements of Cash Flows Three Months Ended March 31, 2020 and March 31, 2019	<u>6</u>
Condensed Consolidated Statements of Changes in Stockholders' Equity Three Months Ended March 31, 2020 and March 31, 2019	<u>7</u>
Notes to Condensed Consolidated Financial Statements	8
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	<u>31</u>
Item 3. Quantitative and Qualitative Disclosures About Market Risk	<u>42</u>
Item 4. Controls and Procedures	<u>42</u>
PART II - OTHER INFORMATION	
Item 1. Legal Proceedings	<u>43</u>
Item 1A. Risk Factors	<u>43</u>
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	<u>67</u>
Item 6. Exhibits	<u>68</u>
<u>SIGNATURES</u>	<u>69</u>
2	

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited)

Juniper Networks, Inc.

Condensed Consolidated Statements of Operations (In millions, except per share amounts) (Unaudited)

	Three Months Ended March 31,					
	 2020	2019				
Net revenues:						
Product	\$ 608.8 \$	618.7				
Service	 389.2	383.0				
Total net revenues	998.0	1,001.7				
Cost of revenues:						
Product	269.0	270.0				
Service	 149.7	149.4				
Total cost of revenues	418.7	419.4				
Gross margin	579.3	582.3				
Operating expenses:						
Research and development	232.5	227.6				
Sales and marketing	239.2	228.5				
General and administrative	59.3	68.2				
Restructuring charges	 8.9	15.3				
Total operating expenses	539.9	539.6				
Operating income	39.4	42.7				
Other (expense) income, net	(11.1)	1.8				
Income before income taxes	28.3	44.5				
Income tax provision	7.9	13.4				
Net income	\$ 20.4 \$	31.1				
Net income per share:						
Basic	\$ 0.06 \$	0.09				
Diluted	\$ 0.06 \$	0.09				
Weighted-average shares used to compute net income per share:						
Basic	330.8	348.1				
Diluted	 335.1	352.7				

Condensed Consolidated Statements of Comprehensive Income (In millions) (Unaudited)

	1	arch 31,		
	2	2020		2019
Net income	\$	20.4	\$	31.1
Other comprehensive (loss) income, net of tax:				
Available-for-sale debt securities:				
Change in net unrealized gains and losses, net of tax benefit (provision) of \$0.8 and (\$0.6), respectively		(3.0)		1.8
Net realized losses reclassified into net income, net of tax benefit of \$0.1 and zero, respectively		0.5		_
Net change on available-for-sale debt securities, net of tax		(2.5)		1.8
Cash flow hedges:				
Change in net unrealized gains and losses, net of tax benefit (provision) of \$4.2 and (\$1.3), respectively		(24.9)		2.1
Net realized losses reclassified into net income, net of tax benefit (provision) of \$0.1 and (\$0.2), respectively		1.4		1.2
Net change on cash flow hedges, net of tax		(23.5)		3.3
Change in foreign currency translation adjustments		(14.7)		2.2
Other comprehensive (loss) income, net of tax		(40.7)		7.3
Comprehensive (loss) income	\$	(20.3)	\$	38.4

Condensed Consolidated Balance Sheets (In millions, except par values)

		March 31, 2020	December 31, 2019		
	((Unaudited)			
ASSETS Current assets:					
	c	1 209 6	¢	1 215 0	
Cash and cash equivalents Short-term investments	\$	1,398.6 523.0	\$	1,215.8 738.0	
Accounts receivable, net of allowances		675.1		879.7 376.3	
Prepaid expenses and other current assets		376.0			
Total current assets		2,972.7		3,209.8	
Property and equipment, net		802.9		830.9	
Operating lease assets		165.8		169.7	
Long-term investments		608.3		589.8	
Purchased intangible assets, net		170.7		185.8	
Goodwill		3,337.1		3,337.1	
Other long-term assets		552.0		514.6	
Total assets	\$	8,609.5	\$	8,837.7	
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities:					
Accounts payable	\$	236.4	\$	219.5	
Accrued compensation		165.9		229.0	
Deferred revenue		854.7		812.9	
Other accrued liabilities		279.5		282.5	
Total current liabilities	,	1,536.5		1,543.9	
Long-term debt		1,712.9		1,683.9	
Long-term deferred revenue		400.1		410.5	
Long-term income taxes payable		369.9		372.6	
Long-term operating lease liabilities		153.6		158.1	
Other long-term liabilities		45.8		58.1	
Total liabilities		4,218.8		4,227.1	
Commitments and contingencies (Note 13)					
Stockholders' equity:					
Convertible preferred stock, \$0.00001 par value; 10.0 shares authorized; none issued and outstanding		<u> </u>		_	
Common stock, \$0.00001 par value; 1,000.0 shares authorized; 331.0 shares and 335.9 shares issued and outstanding as of March 31, 2020 and December 31, 2019, respectively		_		_	
Additional paid-in capital		7,281.3		7,370.5	
Accumulated other comprehensive loss		(59.2)		(18.5)	
Accumulated deficit		(2,831.4)		(2,741.4)	
Total stockholders' equity		4,390.7		4,610.6	
Total liabilities and stockholders' equity	\$	8,609.5	\$	8,837.7	
		-,		-,	

Condensed Consolidated Statements of Cash Flows (In millions) (Unaudited)

	 Three Months Ended March 31,					
	 2020		2019			
Cash flows from operating activities:						
Net income	\$ 20.4	\$	31.1			
Adjustments to reconcile net income to net cash provided by operating activities:						
Share-based compensation expense	42.0		33.9			
Depreciation, amortization, and accretion	54.0		48.7			
Operating lease assets expense	10.5		9.6			
Other	10.3		(2.2)			
Changes in operating assets and liabilities, net of acquisitions:						
Accounts receivable, net	202.6		108.6			
Prepaid expenses and other assets	(37.1)		(9.1)			
Accounts payable	18.4		10.1			
Accrued compensation	(59.8)		(54.9)			
Income taxes payable	5.1		(5.7)			
Other accrued liabilities	(27.0)		(27.9)			
Deferred revenue	32.8		17.2			
Net cash provided by operating activities	272.2		159.4			
Cash flows from investing activities:						
Purchases of property and equipment	(21.8)		(27.9)			
Purchases of available-for-sale debt securities	(257.1)		(884.4)			
Proceeds from sales of available-for-sale debt securities	94.0		232.8			
Proceeds from maturities and redemptions of available-for-sale debt securities	354.0		578.3			
Purchases of equity securities	(3.1)		(5.1)			
Proceeds from sales of equity securities	3.1		2.2			
Subsequent payments related to acquisitions in prior years	(0.2)					
Net cash provided by (used in) investing activities	 168.9		(104.1)			
Cash flows from financing activities:						
Repurchase and retirement of common stock	(203.2)		(2.9)			
Proceeds from issuance of common stock	27.1		29.5			
Payment of dividends	(65.5)		(66.2)			
Payment of debt	_		(350.0)			
Net cash used in financing activities	 (241.6)		(389.6)			
Effect of foreign currency exchange rates on cash, cash equivalents, and restricted cash	 (16.2)		1.6			
Net increase (decrease) in cash, cash equivalents, and restricted cash	 183.3		(332.7)			
Cash, cash equivalents, and restricted cash at beginning of period	1,276.5		2,505.8			
Cash, cash equivalents, and restricted cash at end of period	\$ 1,459.8	\$	2,173.1			

Balance at March 31, 2020

Juniper Networks, Inc.

Condensed Consolidated Statements of Changes in Stockholders' Equity (In millions, except per share amounts) (Unaudited)

Three Months Ended March 31, 2020 Common Stock and **Accumulated Other** Total Stockholders' Accumulated **Additional Paid-in** Shares Capital Comprehensive Loss Deficit Equity Balance at December 31, 2019 335.9 7,370.5 (18.5)\$ (2,741.4)4,610.6 Net income 20.4 20.4 (40.7)Other comprehensive loss, net (40.7) 27.1 Issuance of common stock 5.6 27.1 (10.5)(132.8)(110.4)(243.2)Repurchase and retirement of common stock Purchase of forward contract under accelerated share repurchase program ("ASR") 40.0 40.0 42.0 42.0 Share-based compensation expense Payments of cash dividends (\$0.20 per share of common stock) (65.5)(65.5)7,281.3 4,390.7 331.0 \$ (59.2)(2,831.4)\$

_	Three Months Ended March 31, 2019												
	Shares	Common Stock and Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity								
Balance at December 31, 2018	346.4	\$ 7,672.8	\$ (18.2)	\$ (2,831.4)	\$ 4,823.2								
Net income	_	_	_	31.1	31.1								
Other comprehensive income, net	_	_	7.3	_	7.3								
Issuance of common stock	5.7	29.5	_	_	29.5								
Repurchase and retirement of common stock	(0.1)	(1.4)	_	(1.5)	(2.9)								
Share-based compensation expense	_	33.9	_	_	33.9								
Payments of cash dividends (\$0.19 per share of common stock)	_	(66.2)	_	_	(66.2)								
Cumulative adjustment upon adoption of Accounting Standards Update ("ASU") 2017-12 ("Topic 815"), net	_	_	_	0.1	0.1								
Cumulative adjustment upon adoption of ASU 2016-02 ("Topic 842"), net	_	_	_	(4.8)	(4.8)								
Balance at March 31, 2019	352.0	\$ 7,668.6	\$ (10.9)	\$ (2,806.5)	\$ 4,851.2								

Notes to Condensed Consolidated Financial Statements (Unaudited)

Note 1. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The Condensed Consolidated Financial Statements of Juniper Networks, Inc. (the "Company" or "Juniper") were prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") for interim financial information. Accordingly, they do not include all information and footnotes required by U.S. GAAP for complete financial statements. The Condensed Consolidated Balance Sheet as of December 31, 2019 has been derived from the audited Consolidated Financial Statements at that date. In the opinion of management, all adjustments, including normal recurring accruals, considered necessary for a fair presentation have been included. The results of operations for the three months ended March 31, 2020 are not necessarily indicative of the results that may be expected for the year ending December 31, 2020, or any future period.

These Condensed Consolidated Financial Statements and accompanying notes should be read in conjunction with the audited Consolidated Financial Statements and accompanying notes in the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (the "Form 10-K"). We have evaluated all subsequent events through the date these condensed consolidated financial statements were issued.

The preparation of the financial statements and related disclosures in accordance with U.S. GAAP requires the Company to make judgments, assumptions, and estimates that affect the amounts reported in the Condensed Consolidated Financial Statements and the accompanying notes. Actual results could differ materially from those estimates under different assumptions or conditions.

Summary of Significant Accounting Policies

Except for the change in certain policies upon adoption of the accounting standards described below, there have been no significant changes to the Company's significant accounting policies described in Note 2, *Significant Accounting Policies*, in Notes to Consolidated Financial Statements in Item 8 of Part II of the Form 10-K.

Recently Adopted Accounting Standards

Fair Value Measurement: On January 1, 2020, the Company adopted ASU No. 2018-13 (Topic 820) Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement, which eliminates, adds, and modifies certain disclosure requirements for fair value measurements under ASC 820. The Company adopted the standard under the prospective approach for certain modified or new disclosure requirements, and all other amendments in the standard under the retrospective approach. See Note 3, Fair Value Measurements for disclosures required upon adoption of the standard.

Simplifying the Test for Goodwill Impairment: On January 1, 2020, the Company adopted ASU No. 2017-04 (Topic 350) Intangibles—Goodwill and Other: Simplifying the Test for Goodwill Impairment, which removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Under the amended guidance, a goodwill impairment charge will be recognized for the amount by which the carrying value of a reporting unit exceeds its fair value, not to exceed the carrying amount of goodwill. The Company adopted the standard under the prospective approach. Upon adoption, the standard did not have a material impact on the Consolidated Financial Statements.

Credit Losses on Financial Instruments: On January 1, 2020, the Company adopted ASU 2016-13 (Topic 326) Financial Instruments-Credit Losses: Measurement of Credit Losses on Financial Instruments, as further clarified by the Financial Accounting Standards Board (the "FASB") through the issuance of additional related ASUs, which requires the measurement and recognition of current expected credit losses for financial assets held at amortized cost. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model, which requires the use of forward-looking information to calculate credit loss estimates. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in earlier recognition of credit losses. The Company adopted the standard under the modified retrospective approach. Upon adoption, the standard did not have a material impact on the Consolidated Financial Statements.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Recent Accounting Standards Not Yet Adopted

Reference Rate Reform: In March 2020, the FASB issued ASU No. 2020-04 (Topic 848), Reference Rate Reform - Facilitation of the Effects of Reference Rate Reform on Financial Reporting, which provides temporary optional expedients and exceptions to the existing guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank offered rates to alternative reference rates, such as the Secured Overnight Financing Rate (SOFR). The standard was effective upon issuance and may generally be applied through December 31, 2022 to any new or amended contracts, hedging relationships, and other transactions that reference LIBOR. The Company is currently evaluating the impact to the Consolidated Financial Statements, the transition, and disclosure requirements of the standard.

Simplifying the Accounting for Income Taxes: In December 2019, the FASB issued ASU No. 2019-12 (Topic 740) Income Taxes — Simplifying the Accounting for Income Taxes, which enhances and simplifies various aspects related to accounting for income taxes. This ASU is to be applied on a prospective basis with the exception of certain amendments that are to be applied on either a retrospective or modified retrospective basis. The new standard is effective for interim and annual periods beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating the impact of adoption on its Consolidated Financial Statements.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 2. Cash Equivalents and Investments

Investments in Available-for-Sale Debt Securities

The following table summarizes the Company's unrealized gains and losses and fair value of investments designated as available-for-sale debt securities as of March 31, 2020 and December 31, 2019 (in millions):

	As of March 31, 2020							As of December 31, 2019								
	A	mortized Cost	τ	Gross Inrealized Gains	zed Unrealized		Estimated Fair Value		Amortized Cost		Gross Unrealized Gains		Gross Unrealized Losses		Estimated Fair Value	
Fixed income securities:																
Asset-backed securities	\$	82.8	\$	_	\$	(0.6)	\$	82.2	\$	81.3	\$	0.1	\$	_	\$	81.4
Certificates of deposit		36.8		_		_		36.8		38.6		_		_		38.6
Commercial paper		109.3		_		_		109.3		168.2		_		_		168.2
Corporate debt securities		551.6		0.6		(5.4)		546.8		604.9		0.7		(0.1)		605.5
Foreign government debt securities		11.2		_		_		11.2		11.4		_		_		11.4
Time deposits		_		_		_				226.3		_		_		226.3
U.S. government agency securities		64.5		0.3		_		64.8		89.0		_		_		89.0
U.S. government securities		351.5		2.8		_		354.3		394.3		0.3		(0.1)		394.5
Total fixed income securities		1,207.7		3.7		(6.0)		1,205.4		1,614.0		1.1		(0.2)		1,614.9
Privately-held debt and redeemable preferred stock securities		19.1		37.4		_		56.5		19.1		37.4				56.5
Total available-for-sale debt securities	\$	1,226.8	\$	41.1	\$	(6.0)	\$	1,261.9	\$	1,633.1	\$	38.5	\$	(0.2)	\$	1,671.4
Reported as:																
Cash equivalents	\$	76.2	\$	_	\$	_	\$	76.2	\$	290.9	\$	_	\$	_	\$	290.9
Short-term investments		520.8		1.1		(1.0)		520.9		733.7		0.5		_		734.2
Long-term investments		610.7		2.6		(5.0)		608.3		589.4		0.6		(0.2)		589.8
Other long-term assets		19.1		37.4		_		56.5		19.1		37.4		_		56.5
Total	\$	1,226.8	\$	41.1	\$	(6.0)	\$	1,261.9	\$	1,633.1	\$	38.5	\$	(0.2)	\$	1,671.4

The following table presents the contractual maturities of the Company's total fixed income securities as of March 31, 2020 (in millions):

	Amortized Cost	Estimated Fair Value			
Due in less than one year	\$ 597.0	\$	597.1		
Due between one and five years	610.7		608.3		
Total	\$ 1,207.7	\$	1,205.4		

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

The following tables present the Company's total fixed income securities that were in an unrealized loss position as of March 31, 2020 and December 31, 2019 (in millions):

						As of Ma	rch 3	31, 2020				
		Less that	n 12 N	Months		12 Month	Greater		Total			
	Fair Value		1	Unrealized Loss		Fair Value	Unrealized Loss		Fair Value		Unrealized Loss	
Fixed income securities:												
Asset-backed securities	\$	76.4	\$	(0.6)	\$	_	\$	_	\$	76.4	\$	(0.6)
Commercial paper		2.5		_		_		_		2.5		_
Corporate debt securities		392.8		(5.4)		_		_		392.8		(5.4)
Foreign government debt securities		4.0		_		4.0		_		8.0		_
U.S. government securities		12.0		_		_		_		12.0		_
Total fixed income securities	\$	487.7	\$	(6.0)	\$	4.0	\$	_	\$	491.7	\$	(6.0)

						As of Dece	mbei	31, 2019				
		Less that	n 12 N	Ionths		12 Montl	ıs or	Greater	Total			
	Fair Value		Ţ	Inrealized Loss	Fair Value		Unrealized Loss		Fair Value		Ur	realized Loss
Fixed income securities:				_		_		_		_		
Asset-backed securities	\$	21.6	\$	_	\$	5.2	\$	_	\$	26.8	\$	_
Corporate debt securities		142.6		(0.1)		2.1		_		144.7		(0.1)
Foreign government debt securities		4.0		_		4.0		_		8.0		_
U.S. government agency securities		20.0		_		_		_		20.0		_
U.S. government securities		71.6		(0.1)		_		_		71.6		(0.1)
Total fixed income securities	\$	259.8	\$	(0.2)	\$	11.3	\$		\$	271.1	\$	(0.2)

For available-for-sale debt securities that have unrealized losses, the Company assesses impairment by evaluating various factors, including whether (i) it has the intention to sell any of these investments and (ii) whether it is more likely than not that it will be required to sell any of these investments before recovery of the entire amortized cost basis. The Company periodically assesses performance indicators of the investment by evaluating various factors such as (i) changes in the credit ratings and (ii) review of issuer. As of March 31, 2020, the Company had 409 investments in unrealized loss positions. The gross unrealized losses related to these investments were primarily due to changes in market interest rates. The Company anticipates that it will recover the entire amortized cost basis of such available-for-sale debt securities and has determined that no allowance for credit losses was required to be recognized during the three months ended March 31, 2020 and March 31, 2019.

During the three months ended March 31, 2020 and March 31, 2019, there were no material gross realized gains or losses from available-for-sale debt securities.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Investments in Equity Securities

The following table presents the Company's investments in equity securities as of March 31, 2020 and December 31, 2019 (in millions):

		As of					
	N	March 31, 2020	Ι	December 31, 2019			
Equity investments with readily determinable fair value				_			
Money market funds	\$	760.3	\$	446.4			
Mutual funds		21.5		26.8			
Publicly-traded equity securities		2.1		3.8			
Equity investments without readily determinable fair value		135.0		133.3			
Total equity securities	\$	918.9	\$	610.3			
Reported as:							
Cash equivalents	\$	756.3	\$	442.3			
Short-term investments		2.1		3.8			
Prepaid expenses and other current assets		6.6		4.1			
Other long-term assets		153.9		160.1			
Total	\$	918.9	\$	610.3			

For the three months ended March 31, 2020 and March 31, 2019, there were no material unrealized gains or losses recognized for equity investments.

Restricted Cash and Investments

The Company has restricted cash and investments for: (i) amounts held in escrow accounts, as required in connection with certain acquisitions completed primarily between 2015 and 2019; (ii) amounts held under the Company's short-term disability plan in California; and (iii) amounts under the Company's non-qualified deferred compensation plan ("NQDC") for senior-level employees. Restricted investments consist of equity investments. As of March 31, 2020, the carrying value of restricted cash and investments was \$86.8 million, of which \$67.7 million was included in prepaid expenses and other current assets and \$19.1 million was included in other long-term assets on the Condensed Consolidated Balance Sheet.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash included in the Condensed Consolidated Balance Sheets as of March 31, 2020 and December 31, 2019 (in millions):

	As of				
	March 31, 2020		December 31, 2019		
Cash and cash equivalents	\$ 1,398.6	\$	1,215.8		
Restricted cash included in Prepaid expenses and other current assets	61.2		60.7		
Total cash, cash equivalents, and restricted cash	\$ 1,459.8	\$	1,276.5		

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 3. Fair Value Measurements

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table provides a summary of assets and liabilities measured at fair value on a recurring basis and as reported in the Condensed Consolidated Balance Sheets (in millions):

		Fair Value Measurements at March 31, 2020								Fair Value Measurements at December 31, 2019							
	Acti Iden	ed Prices in ve Markets For tical Assets Level 1)	Ol R	gnificant Other oservable emaining Inputs Level 2)	Ĭ	gnificant Other Jnobservable maining Inputs (Level 3)		Total	A	uoted Prices in Active Markets For Ientical Assets (Level 1)	O	oignificant Other bservable demaining Inputs (Level 2)	Ĭ	nificant Other Inobservable naining Inputs (Level 3)		Total	
Assets:																	
Available-for-sale debt securities:																	
Asset-backed securities	\$	_	\$	82.2	\$	_	\$	82.2	\$	_	\$	81.4	\$	_	\$	81.4	
Certificates of deposit		_		36.8		_		36.8		_		38.6		_		38.6	
Commercial paper		_		109.3		_		109.3		_		168.2		_		168.2	
Corporate debt securities		_		546.8		_		546.8		_		605.5		_		605.5	
Foreign government debt securities		_		11.2		_		11.2		_		11.4		_		11.4	
Time deposits		_		_		_		_		_		226.3		_		226.3	
U.S. government agency securities		_		64.8		_		64.8		_		89.0		_		89.0	
U.S. government securities		299.0		55.3		_		354.3		318.9		75.6		_		394.5	
Privately-held debt and redeemable preferred stock securities		_		_		56.5		56.5		_		_		56.5		56.5	
Total available-for-sale debt securities		299.0	-	906.4		56.5		1,261.9		318.9		1,296.0		56.5		1,671.4	
Equity securities:								·									
Money market funds		760.3		_		_		760.3		446.4		_		_		446.4	
Mutual funds		21.5		_		_		21.5		26.8		_		_		26.8	
Publicly-traded equity securities		2.1						2.1		3.8						3.8	
Total equity securities		783.9		_		_		783.9		477.0		_		_		477.0	
Derivative assets:																	
Foreign exchange contracts		_		1.1		_		1.1		_		2.5		_		2.5	
Interest rate swap contracts		_		25.6				25.6									
Total derivative assets		_		26.7		_		26.7		_		2.5		_		2.5	
Total assets measured at fair value on a recurring basis	\$	1,082.9	\$	933.1	\$	56.5	\$	2,072.5	\$	795.9	\$	1,298.5	\$	56.5	\$	2,150.9	
Liabilities:																	
Derivative liabilities:																	
Foreign exchange contracts	\$	_	\$	(32.4)	\$	_	\$	(32.4)	\$	_	\$	(6.8)	\$	_	\$	(6.8)	
Interest rate swap contracts												(3.1)				(3.1)	
Total derivative liabilities		_		(32.4)		_		(32.4)		_		(9.9)		_		(9.9)	
Total liabilities measured at fair value on a recurring basis	\$	_	\$	(32.4)	\$		\$	(32.4)	\$		\$	(9.9)	\$	_	\$	(9.9)	
8	_		_	<u> </u>	_		_	<u> </u>	_		_		_			<u> </u>	
Total assets, reported as:																	
	¢.	756.2	e	76.2	¢.		¢.	922 5	¢.	442.2	e.	200.0	e.		e.	722.2	
Cash equivalents Short-term investments	\$	756.3 171.9	\$	76.2 351.1	\$		\$	832.5 523.0	\$	442.3 188.8	\$	290.9 549.2	\$		\$	733.2 738.0	
Long-term investments		129.2		479.1				608.3		133.9		455.9		_		589.8	
Prepaid expenses and other current assets		6.5		1.1		_		7.6		4.1		2.5		_		6.6	
Other long-term assets		19.0		25.6	_	56.5	_	101.1		26.8			_	56.5	_	83.3	
Total assets measured at fair value on a recurring basis	\$	1,082.9	\$	933.1	\$	56.5	\$	2,072.5	\$	795.9	\$	1,298.5	\$	56.5	\$	2,150.9	

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

		Fair Value Measurements at March 31, 2020								Fair Value Measurements at December 31, 2019							
	A	oted Prices in ctive Markets For entical Assets (Level 1)	C F	Significant Other Observable Remaining Inputs (Level 2)		ignificant Other Unobservable temaining Inputs (Level 3)		Total	Quoted Prices in Active Markets For Identical Assets (Level 1) Significant Other Other Remaining Inputs (Level 2)				gnificant Other Unobservable emaining Inputs (Level 3)		Total		
Total liabilities, reported as:																	
Other accrued liabilities	\$	_	\$	(32.4)	\$	_	\$	(32.4)	\$	_	\$	(6.8)	\$	_	\$	(6.8)	
Other long-term liabilities		_		_		_		_		_		(3.1)		_		(3.1)	
Total liabilities measured at fair value on a recurring basis	\$	_	\$	(32.4)	\$	_	\$	(32.4)	\$	_	\$	(9.9)	\$	_	\$	(9.9)	

The Company's Level 2 available-for-sale debt securities are priced using quoted market prices for similar instruments or non-binding market prices that are corroborated by observable market data. The Company uses inputs such as actual trade data, benchmark yields, broker/dealer quotes, or alternative pricing sources with reasonable levels of price transparency which are obtained from quoted market prices, independent pricing vendors, or other sources, to determine the ultimate fair value of these assets. The Company's derivative instruments are classified as Level 2, as they are not actively traded and are valued using pricing models that use observable market inputs. During the three months ended March 31, 2020, the Company had no transfers into or out of Level 3 of the fair value hierarchy of its assets or liabilities measured at fair value.

The Company's privately-held debt and redeemable preferred stock securities are classified as Level 3 assets due to the lack of observable inputs to determine fair value. The Company estimates the fair value of its privately-held debt and redeemable preferred stock securities on a recurring basis using an analysis of the financial condition and near-term prospects of the investee, including recent valuations at the time of financing activities and the investee's capital structure. During the three months ended March 31, 2020, there were no significant activities related to privately-held debt and redeemable preferred stock securities.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

The Company's investments in equity securities without readily determinable fair value are classified as Level 3 assets due to the lack of observable inputs to determine fair value. The Company estimates the fair value on a nonrecurring basis (i.e. when observable transaction occurs) using an analysis of the financial condition and near-term prospects of the investee, including recent financing activities and the investee's capital structure. As of March 31, 2020, there have been no material upward or downward adjustments for price changes to the equity securities without readily determinable fair value.

Certain of the Company's assets, including intangible assets and goodwill, are measured at fair value on a nonrecurring basis. There were no significant impairment charges recognized during the three months ended March 31, 2020.

As of March 31, 2020 and December 31, 2019, the Company had no liabilities required to be measured at fair value on a nonrecurring basis.

Assets and Liabilities Not Measured at Fair Value

The carrying amounts of the Company's accounts receivable, accounts payable, and other accrued liabilities approximate fair value due to their short maturities. As of March 31, 2020 and December 31, 2019, the estimated fair value of the Company's total outstanding debt in the Condensed Consolidated Balance Sheets was \$1,782.1 million and \$1,852.1 million, respectively, based on observable market inputs (Level 2). The carrying value of the promissory note issued to the Company in connection with the previously completed sale of Junos Pulse, along with the accumulated interest paid in kind, of \$84.4 million and \$78.9 million approximates its fair value as of March 31, 2020 and December 31, 2019, respectively. Notes receivable are generally classified as Level 3 assets due to the lack of observable inputs to determine fair value. The carrying value of a contract manufacturer deposit of \$52.6 million, reported within other long-term assets, in the Condensed Consolidated Balance Sheets approximates its fair value as of March 31, 2020. See Note 5, *Other Financial Information*, for further information on the contract manufacturer deposit.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 4. Derivative Instruments

The Company uses derivative instruments to manage a variety of risks, including risks related to fluctuations in foreign currency exchange rates and interest rates on debt instruments. We do not use derivative financial instruments for speculative purposes.

The notional amount of the Company's derivatives is summarized as follows (in millions):

		A	s of	
	N	March 31, 2020		cember 31, 2019
Designated derivatives:				
Cash flow hedges	\$	526.0	\$	484.0
Interest rate swap contracts		300.0		300.0
Total designated derivatives		826.0		784.0
				_
Non-designated derivatives		174.4		162.9
Total	\$	1,000.4	\$	946.9

The fair value of derivative instruments on the Consolidated Balance Sheets was as follows:

			As of					
	Balance Sheet Location	М	arch 31, 2020		ember 31, 2019			
Derivative assets:								
Derivatives designated as hedging instruments:								
Foreign currency contracts as cash flow hedges	Other current assets	\$	_	\$	2.2			
Foreign currency contracts as cash flow hedges	Other long-term assets		0.1		0.3			
Interest rate swap designated as fair value hedges	Other long-term assets		25.6		_			
Total derivatives designated as hedging instruments		\$	25.7	\$	2.5			
Derivatives not designated as hedging instruments	Other current assets		1.0		_			
Total derivative assets		\$	26.7	\$	2.5			
Derivative liabilities:								
Derivatives designated as hedging instruments:								
Foreign currency contracts as cash flow hedges	Other accrued liabilities	\$	27.6	\$	6.6			
Foreign currency contracts as cash flow hedges	Other long-term liabilities		4.2		_			
Interest rate swap designated as fair value hedges	Other long-term liabilities		_		3.1			
Total derivatives designated as hedging instruments		\$	31.8	\$	9.7			
Derivatives not designated as hedging instruments	Other accrued liabilities		0.6		0.2			
Total derivative liabilities		\$	32.4	\$	9.9			

Designated Derivatives

The Company uses foreign currency forward contracts to hedge the Company's planned cost of revenues and operating expenses denominated in foreign currencies. These derivatives are designated as cash flow hedges. Cash flow hedge derivatives typically have maturities of twenty-four months or less. As of March 31, 2020, an estimated \$27.6 million of unrealized net loss within accumulated other comprehensive loss is expected to be reclassified into earnings within the next twelve months.

In 2019, the Company entered into interest rate swaps with an aggregate notional amount of \$300.0 million designated as fair value hedges of our fixed-rate 2041 Notes. These swaps convert the fixed interest rates of the notes to floating interest rates based on the LIBOR. Most of the interest rate swaps will expire within ten years or less.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Effect of Derivative Instruments on the Consolidated Statements of Operations

For foreign currency forward contracts, the Company recognized an unrealized loss of \$29.1 million and an unrealized gain of \$3.4 million in accumulated other comprehensive income for the effective portion of its derivative instruments for the three months ended March 31, 2020 and March 31, 2019, respectively. The losses reclassified out of accumulated other comprehensive income to cost of revenues and operating expenses in the Condensed Consolidated Statements of Operations, were not material during the three months ended March 31, 2020 and March 31, 2019.

Non-Designated Derivatives

The Company also uses foreign currency forward contracts to mitigate variability in gains and losses generated from the remeasurement of certain monetary assets and liabilities denominated in foreign currencies. These foreign exchange forward contracts typically have maturities of approximately one to four months. The outstanding non-designated derivative instruments are carried at fair value. Changes in the fair value of these derivatives, which were recorded in other expense, net within the Condensed Consolidated Statements of Operations, were not material during the three months ended March 31, 2020 and March 31, 2019.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 5. Other Financial Information

Inventory

Total inventory consisted of the following (in millions):

		A	s of	
	N	Dece	ember 31, 2019	
Production and service materials	\$	76.6	\$	69.0
Finished goods		25.1		25.2
Inventory	\$	101.7	\$	94.2
Reported as:				
Prepaid expenses and other current assets	\$	97.3	\$	90.6
Other long-term assets		4.4		3.6
Total	\$	101.7	\$	94.2

Deposit

The Company has a non-interest bearing deposit balance of \$52.6 million, net of an unamortized discount balance of \$3.4 million, to a contract manufacturer per the terms of the agreement. The discount is calculated based on an imputed interest rate of 5.0% at March 31, 2020. The imputed interest will be amortized over the term of the deposit to interest income along with a corresponding charge to cost of revenues. The deposit is due in the second quarter of 2021 and was classified as other long-term assets on the Condensed Consolidated Balance Sheets.

Warranties

Changes during the three months ended March 31, 2020 in the Company's warranty reserve as reported within other accrued liabilities in the Condensed Consolidated Balance Sheets were as follows (in millions):

Balance as of December 31, 2019	\$ 31.4
Provisions made during the period	9.6
Actual costs incurred during the period	(10.4)
Balance as of March 31, 2020	\$ 30.6

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Deferred Revenue

Details of the Company's deferred revenue, as reported in the Condensed Consolidated Balance Sheets, were as follows (in millions):

		As of				
	1	March 31, 2020		December 31, 2019		
Deferred product revenue:						
Undelivered product commitments and other product deferrals	\$	121.0	\$	141.7		
Deferred gross product revenue		121.0		141.7		
Deferred cost of product revenue		(9.5)		(9.1)		
Deferred product revenue, net		111.5		132.6		
Deferred service revenue		1,143.3		1,090.8		
Total	\$	1,254.8	\$	1,223.4		
Reported as:						
Current	\$	854.7	\$	812.9		
Long-term		400.1		410.5		
Total	\$	1,254.8	\$	1,223.4		

Revenue

See Note 10, Segments, for disaggregated revenue by product and service, customer vertical, and geographic region.

Product revenue of \$30.3 million included in deferred revenue at January 1, 2020 was recognized during the three months ended March 31, 2020. Service revenue of \$282.2 million included in deferred revenue at January 1, 2020 was recognized during the three months ended March 31, 2020.

The following table summarizes the transaction price for contracts that have not yet been recognized as revenue as of March 31, 2020 and when the Company expects to recognize the amounts as gross revenue (in millions):

	Revenue Recognition Expected by Period									
		Total	Le	ss than 1 year		1-3 years	More	e than 3 years		
Product	\$	121.0	\$	100.1	\$	18.5	\$	2.4		
Service ^(*)		1,155.3		767.3		322.7		65.3		
Total	\$	1,276.3	\$	867.4	\$	341.2	\$	67.7		

^(*) Represents unearned service revenue allocated to the performance obligations not delivered or partially delivered as of March 31, 2020. The unearned service revenue is comprised of deferred revenue and unbilled revenue.

Deferred Commissions

Deferred commissions were \$23.8 million as of March 31, 2020. For the three months ended March 31, 2020, amortization expense for the deferred commissions was \$29.4 million, and there were no impairment charges recognized.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Other (Expense) Income, Net

Other (expense) income, net, consisted of the following (in millions):

	 Three Months Ended March 31,					
	2020		2019			
Interest income	\$ 15.0	\$	23.5			
Interest expense	(20.1)		(24.2)			
(Loss) gain on investments, net	(5.8)		1.6			
Other	(0.2)		0.9			
Other (expense) income, net	\$ (11.1)	\$	1.8			

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 6. Restructuring Charges

During the first quarter of 2020, the Company initiated a restructuring plan (the "2020 Restructuring Plan") designed to realign its workforce with the Company's sales strategy, enhance productivity and cost efficiencies, and enable reinvestment in certain key priority areas, which resulted in workforce reductions and other exit costs.

During the three months ended March 31, 2020, the Company recorded \$4.1 million in severance and \$5.3 million in impairment charges included in other exit related costs, which were reported as restructuring charges in the Condensed Consolidated Statements of Operations.

Restructuring liabilities are reported within other accrued liabilities in the Condensed Consolidated Balance Sheets. The following table provides a summary of changes in the restructuring liabilities for the Company's 2020 and prior year restructuring plan (in millions):

	December 31, 2019	Charges	Cash Payments	Other	March 31, 2020
Severance	\$ 0.7	\$ 4.1	\$ (2.8)	\$ (0.5)	\$ 1.5
Other	_	5.3	_	(5.3)	_
Total	\$ 0.7	\$ 9.4	\$ (2.8)	\$ (5.8)	\$ 1.5

The Company expects to substantially pay the remaining restructuring liabilities by the end of the third quarter of 2020.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 7. Debt

Debt

The following table summarizes the Company's total debt (in millions, except percentages):

		As of Ma	irch 31,	, 2020	
	Issuance date	Maturity Date		Amount	Effective Interest Rates
Senior Notes ("Notes"):					
4.500% fixed-rate notes ("2024 Notes")	March 2014	March 2024	\$	350.0	4.63%
4.500% fixed-rate notes ("2024 Notes")	February 2016	March 2024		150.0	4.87%
4.350% fixed-rate notes ("2025 Notes")	March 2015	June 2025		300.0	4.47%
3.750% fixed-rate notes ("2029 Notes")	August 2019	August 2029		500.0	3.86%
5.950% fixed-rate notes ("2041 Notes")	March 2011	March 2041		400.0	6.03%
Total Notes				1,700.0	
Unaccreted discount and debt issuance costs				(12.7)	
Hedge accounting fair value adjustments(*)				25.6	
Total			\$	1,712.9	

^(*) Represents the fair value adjustments for interest rate swap contracts with an aggregate notional amount of \$300.0 million designated as fair value hedges of our fixed-rate 2041 Notes. See Note 4, *Derivative Instruments*, for a discussion of the Company's interest rate swaps.

The Notes above are the Company's senior unsecured and unsubordinated obligations, ranking equally in right of payment to all of the Company's existing and future senior unsecured and unsubordinated indebtedness, and senior in right of payment to any of the Company's future indebtedness that is expressly subordinated to the Notes.

Interest on the Notes is payable in cash semiannually. The effective interest rates for the Notes include the interest on the Notes, accretion of the discount, and amortization of issuance costs. The indentures that govern the Notes also contain various covenants, including limitations on the Company's ability to incur liens or enter into sale-leaseback transactions over certain dollar thresholds.

As of March 31, 2020, the Company was in compliance with all covenants in the indentures governing the Notes.

Revolving Credit Facility

The Company has an unsecured revolving credit facility that will expire in April 2024, which enables borrowings of up to \$500.0 million, with an option to increase the amount of the credit facility by up to an additional \$200.0 million, subject to the lenders' approval. The credit facility will terminate in April 2024, subject to a one-year maturity extension option. As of March 31, 2020, we were in compliance with all covenants and no amounts were outstanding under our credit facility.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 8. Equity

The following table summarizes dividends paid, stock repurchases, and retirements under the Company's stock repurchase program (in millions, except per share amounts):

	 Three Months Ended March 31,			
	 2020		2019	
Dividends				
Per share	\$ 0.20	\$	0.19	
Amount	\$ 65.5	\$	66.2	
Repurchased under the 2018 Stock Repurchase Program				
Shares	10.3		_	
Average price per share ^(*)	\$ 23.83	\$	_	
Amount	\$ 200.0	\$	_	

^(*) During the three months ended March 31, 2020, the \$23.83 average price per share includes \$200.0 million in open market purchases, and settlement of the forward contract of \$40.0 million under the ASR, which was initiated during the fourth quarter of 2019.

Cash Dividends on Shares of Common Stock

During the three months ended March 31, 2020, the Company declared a quarterly cash dividend of \$0.20 per share of common stock on January 27, 2020, which was paid on March 23, 2020 to stockholders of record on March 2, 2020. Any future dividends, and the establishment of record and payment dates, are subject to approval by the Board of Directors (the "Board") of Juniper or an authorized committee thereof. See Note 14, *Subsequent Events*, for discussion of the Company's dividend declaration subsequent to March 31, 2020.

Stock Repurchase Activities

In January 2018, the Board approved a \$2.0 billion share repurchase program ("2018 Stock Repurchase Program"), which replaced our prior authorization. In October 2019, the Board authorized a \$1.0 billion increase to the 2018 Stock Repurchase Program for a total of \$3.0 billion.

On October 2019, the Company entered into an ASR, to repurchase an aggregate of approximately \$200.0 million of the Company's outstanding common stock. During the three months ended December 31, 2019, the Company made an up-front payment of \$200.0 million pursuant to the ASR and received and retired an initial 6.4 million shares of the Company's common stock for an aggregate price of \$160.0 million, based on the market price of \$25.15 per share of the Company's common stock on the date of the transaction. During the three months ended March 31, 2020, the ASR was completed and an additional 1.8 million shares were received for a total repurchase of 8.2 million shares of the Company's common stock at a volume weighted average repurchase price, less an agreed upon discount, of \$24.44 per share. The shares received by the Company were retired, accounted for as a reduction to stockholder's equity in the Condensed Consolidated Balance Sheets, and treated as a repurchase of common stock for purposes of calculating earnings per share.

During the three months ended March 31, 2020, the Company also repurchased 8.5 million shares of its common stock in the open market for an aggregate purchase price of \$200.0 million at an average price of \$23.70 per share, under the 2018 Stock Repurchase Program.

As of March 31, 2020, there was approximately \$1.5 billion of authorized funds remaining under the 2018 Stock Repurchase Program.

Future share repurchases under the 2018 Stock Repurchase Program will be subject to a review of the circumstances at that time and will be made from time to time in private transactions or open market purchases as permitted by securities laws and other legal requirements. The Company's 2018 Stock Repurchase Program may be discontinued at any time.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

In addition to repurchases under the 2018 Stock Repurchase Program, the Company also withholds shares of common stock from certain employees in connection with the vesting of stock awards issued to such employees to satisfy applicable tax withholding requirements. Such withheld shares are treated as common stock repurchases in our financial statements as they reduce the number of shares that would have been issued upon vesting. Repurchases associated with tax withholdings were not material during the three months ended March 31, 2020 and March 31, 2019.

Accumulated Other Comprehensive Loss, Net of Tax

The components of accumulated other comprehensive loss, net of related taxes, for the three months ended March 31, 2020 were as follows (in millions):

	Ga on A	nrealized ins/Losses vailable-for- ebt Securities	Unrealized Gains/Losses on Cash Flow Hedges	Foreign Currency Translation Adjustments	Total
Balance as of December 31, 2019	\$	29.7	\$ (4.3)	\$ (43.9)	\$ (18.5)
Other comprehensive loss before reclassifications	'	(3.0)	(24.9)	(14.7)	(42.6)
Amount reclassified from accumulated other comprehensive loss		0.5	1.4	_	1.9
Other comprehensive loss, net		(2.5)	(23.5)	 (14.7)	 (40.7)
Balance as of March 31, 2020	\$	27.2	\$ (27.8)	\$ (58.6)	\$ (59.2)

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 9. Employee Benefit Plans

Equity Incentive Plans

The Company has stock-based compensation plans pursuant to which it has granted stock options, restricted stock units ("RSUs"), and performance share awards ("PSAs"). The Company also maintains its 2008 Employee Stock Purchase Plan (the "ESPP") for all eligible employees. As of March 31, 2020, 15.9 million and 4.9 million shares were available for future issuance under the Company's 2015 Equity Incentive Plan (the "2015 Plan") and the ESPP, respectively. In connection with past acquisitions, the Company has also assumed or substituted stock options, RSUs, restricted stock awards ("RSAs"), and PSAs.

RSU, RSA and PSA Activities

The Company's RSU, RSA and PSA activity and related information as of and for the three months ended March 31, 2020 were as follows (in millions, except per share amounts and years):

	Outstanding RSUs, RSAs and PSAs							
	Number of Shares		Weighted Average Grant-Date Fair Value per Share	Weighted Average Remaining Contractual Term (In Years)		Aggregate Intrinsic Value		
Balance as of December 31, 2019	17.5	\$	25.30					
Granted ^(*)	2.6		22.80					
Vested	(4.2)		26.01					
Canceled	(1.0)		25.78					
Balance as of March 31, 2020	14.9	\$	24.62	1.3	\$	284.5		

^(*) Includes 1.4 million service-based, 0.8 million performance-based, and 0.4 million market-based RSUs. The number of shares subject to performance-based and market-based condition represents the aggregate maximum number of shares that may be issued pursuant to the award over its full term. The grant date fair value of RSUs and PSAs was reduced by the present value of dividends expected to be paid on the underlying shares of common stock during the requisite and derived service period as these awards are not entitled to receive dividends until vested.

Employee Stock Purchase Plan

The following table summarizes employee stock purchases through the ESPP (in millions, except per share amounts):

	Three Mon	Three Months Ended March 31,			
	2020		2019		
Shares purchased	1	.4	1.2		
Average exercise price per share	\$ 19.	50 \$	22.04		

The ESPP provides a 24-month offering period with four 6-month purchase periods. A new 24-month offering period commences every six months. The purchase price for the Company's common stock under the ESPP is 85% of the lower of the fair market value of the shares at (1) the beginning of the applicable offering period or (2) the end of each 6-month purchase period during such offering period. The ESPP will continue in effect until February 25, 2028, unless terminated earlier under the provisions of the ESPP.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Share-Based Compensation Expense

Share-based compensation expense associated with stock options, RSUs, RSAs, PSAs, and the ESPP was recorded in the following cost and expense categories in the Condensed Consolidated Statements of Operations (in millions):

	Three Mon	Three Months Ended March 31,			
	2020		2019		
Cost of revenues - Product	\$.4 \$	1.9		
Cost of revenues - Service	4	.2	4.5		
Research and development	1:	.2	12.2		
Sales and marketing	1:	.8	9.4		
General and administrative		.4	5.9		
Total	\$ 42	.0 \$	33.9		

The following table summarizes share-based compensation expense by award type (in millions):

	Three Months Ended March 31,			
		2020		2019
Stock options	\$	1.9	\$	0.1
RSUs, RSAs, and PSAs		34.9		29.1
ESPP		5.2		4.7
Total	\$	42.0	\$	33.9

As of March 31, 2020, the total unrecognized compensation cost related to unvested share-based awards was \$285.5 million to be recognized over a weighted-average period of 1.75 years.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 10. Segments

The Company operates in one reportable segment. The Company's chief executive officer, who is the chief operating decision maker, reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance, accompanied by disaggregated information about net revenues by product and service, customer vertical, and geographic region as presented below.

The following table presents net revenues by product and service (in millions):

	 Three Months Ended March 31,				
	2020		2019		
Routing	\$ 314.5	\$	374.7		
Switching	219.8		176.4		
Security	74.5		67.6		
Total product	608.8		618.7		
Total service	389.2		383.0		
Total	\$ 998.0	\$	1,001.7		

The following table presents net revenues by customer vertical (in millions):

	 Three Months Ended March 31,				
	2020	2019			
Cloud	\$ 261.9	\$ 223.1			
Service Provider	375.5	435.6			
Enterprise	360.6	343.0			
Total	\$ 998.0	\$ 1,001.7			

The Company attributes revenues to geographic region based on the customer's shipping address. The following table presents net revenues by geographic region (in millions):

	Three Months Ended March 31,				
		2020		2019	
Americas:					
United States	\$	529.4	\$	476.6	
Other		50.1		67.0	
Total Americas	'	579.5		543.6	
Europe, Middle East, and Africa		255.0		286.2	
Asia Pacific		163.5		171.9	
Total	\$	998.0	\$	1,001.7	

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 11. Income Taxes

The following table provides details of income taxes (in millions, except percentages):

	 Three Months Ended March 31,				
	2020		2019		
Income before income taxes	\$ 28.3	\$	44.5		
Income tax provision	\$ 7.9	\$	13.4		
Effective tax rate	28.0%		30.1%		

The Company's effective tax rate differs from the federal statutory rate of 21% primarily due to the tax impact of state taxes, geographic mix of earnings including foreign-derived intangible income deductions and global intangible low-taxed income, research and development ("R&D") tax credits, tax audit settlements, nondeductible compensation, and transfer pricing adjustments.

The Company's effective tax rate during the three months ended March 31, 2020 reflects a discrete charge for non-deductible stock compensation in the period.

The Company's effective tax rate during the three months ended March 31, 2019 reflected the inability to fully benefit the discrete charges in the period, the inclusion of the U.S. Base Erosion and Anti-Abuse Tax and the net impact of unrecognized tax benefits.

As of March 31, 2020, the total amount of gross unrecognized tax benefits was \$147.6 million.

The Company engages in continuous discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. There is a greater than remote likelihood that the balance of the gross unrecognized tax benefits will decrease by a range of approximately \$16.0 million to \$37.0 million within the next twelve months due to the completion of tax review cycles in various tax jurisdictions and lapses of applicable statutes of limitations.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 12. Net Income per Share

The Company computed basic and diluted net income per share as follows (in millions, except per share amounts):

		Three Months Ended March 31,				
		2020		2020		2019
Numerator:						
Net income	\$	20.4	\$	31.1		
Denominator:						
Weighted-average shares used to compute basic net income per share		330.8		348.1		
Dilutive effect of employee stock awards		4.3		4.6		
Weighted-average shares used to compute diluted net income per share		335.1		352.7		
Net income per share						
Basic	\$	0.06	\$	0.09		
Diluted	\$	0.06	\$	0.09		
Anti-dilutive shares		3.3		5.0		

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 13. Commitments and Contingencies

Commitments

Except for the items below, there have been no material changes to the Company's commitments compared to the commitments described in Note 16, Commitments and Contingencies. in Notes to Consolidated Financial Statements in Item 8 of Part II of the Form 10-K.

Purchase Commitments with Contract Manufacturers and Suppliers

In order to reduce manufacturing lead times and in the interest of having access to adequate component supply, the Company enters into agreements with contract manufacturers and certain suppliers to procure inventory based on the Company's requirements. A significant portion of the Company's purchase commitments arising from these agreements consists of firm and non-cancelable commitments. These purchase commitments totaled \$1,497.3 million as of March 31, 2020.

The Company establishes a liability in connection with purchase commitments related to quantities in excess of its demand forecasts or obsolete materials charges for components purchased by the contract manufacturers based on the Company's demand forecast or customer orders. As of March 31, 2020, the Company had accrued \$22.5 million based on its estimate of such charges.

Legal Proceedings

In the ordinary course of business, the Company is subject to various pending and potential investigations, disputes, litigations, and legal proceedings. The Company records an accrual for loss contingencies for legal proceedings when it believes that an unfavorable outcome is both (a) probable and (b) the amount or range of any possible loss is reasonably estimable. The Company intends to aggressively defend itself in these matters, and while there can be no assurances and the outcome of these matters is currently not determinable, the Company currently believes that none of these existing claims or proceedings are likely to have a material adverse effect on its financial position. Notwithstanding the foregoing, there are many uncertainties associated with any litigation and these matters or other third-party claims against the Company may cause the Company to incur costly litigation and/or substantial settlement charges. In addition, the resolution of any intellectual property litigation may require the Company to make royalty payments, which could adversely affect gross margins in future periods. If any of those events were to occur, the Company's business, financial condition, results of operations, and cash flows could be adversely affected. The actual liability in any such matters may be materially different from the Company's estimates, if any, which could result in the need to adjust the liability and record additional expenses.

Juniper Networks, Inc.

Notes to Condensed Consolidated Financial Statements (Continued) (Unaudited)

Note 14. Subsequent Events

Dividend Declaration

On April 28, 2020, the Company announced that the Board declared a cash dividend of \$0.20 per share of common stock to be paid on June 22, 2020 to stockholders of record as of the close of business on June 1, 2020.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Quarterly Report on Form 10-Q, which we refer to as the Report, including "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements regarding future events and the future results of Juniper Networks, Inc., which we refer to as "we," "us," "Juniper," or the "Company," that are based on our current expectations, estimates, forecasts, and projections about our business, economic and market outlook, our results of operations, the industry in which we operate and the beliefs and assumptions of our management. Words such as "expects," "anticipates," "targets," "goals," "projects," "would," "will," "could," "may," "intends," "plans," "believes," "seeks," "estimates," variations of such words, and similar expressions are intended to identify such forward-looking statements. Forward-looking statements by their nature address matters that are, to different degrees, uncertain, and these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict, including the duration, extent, and impact of the COVID-19 pandemic, and our ability to successfully manage the demand, supply, and operational challenges associated with the COVID-19 pandemic. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in this Report under the section entitled "Risk Factors" in Item 1A of Part II and elsewhere, and in other reports we file with the U.S. Securities and Exchange Commission, or the SEC. In addition, many of the foregoing risks and uncertainties are, and could be, exacerbated by the COVID-19 pandemic and any worsening of the global business and economic environment as a result. While forward-looking statements are based on reasonable expectations of our management at the time that they are made, you should not rely on them. We undertake no obligation to revise or update publicly any forward-looking statements for any reason, except as required by applicable law. We cannot at this time predict the extent of the impact of the COVID-19 pandemic and any resulting business or economic impact, but it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The following discussion is based upon our unaudited Condensed Consolidated Financial Statements included in Part 1, Item I, of this Report, which were prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. In the course of operating our business, we routinely make decisions as to the timing of the payment of invoices, the collection of receivables, the manufacturing and shipment of products, the fulfillment of orders, the purchase of supplies, and the building of inventory and spare parts, among other matters. In making these decisions, we consider various factors, including contractual obligations, customer satisfaction, competition, internal and external financial targets and expectations, and financial planning objectives. Each of these decisions has some impact on the financial results for any given period.

To aid in understanding our operating results for the periods covered by this Report, we have provided an executive overview, which includes a summary of our business and market environment along with a financial results and key performance metrics overview. These sections should be read in conjunction with the more detailed discussion and analysis of our condensed consolidated financial condition and results of operations in this Item 2, our "Risk Factors" section included in Item 1A of Part II of this Report, and our unaudited Condensed Consolidated Financial Statements and Notes included in Item 1 of Part I of this Report, as well as our audited Consolidated Financial Statements and Notes included in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, or Form 10-K.

Business and Market Environment

Juniper Networks designs, develops and sells products and services for high-performance networks to enable customers to build scalable, reliable, secure and cost-effective networks for their businesses, while achieving agility and improved operating efficiency through automation. We sell our products in more than 150 countries in three geographic regions: Americas; Europe, Middle East, and Africa, which we refer to as EMEA; and Asia Pacific, which we refer to as APAC. We organize and manage our business by major functional departments on a consolidated basis as one operating segment. We sell our high-performance network products and service offerings across routing, switching, and security technologies. In addition to our products, we offer our customers services, including maintenance and support, professional services, and education and training programs.

Our products and services address high-performance network requirements for our customers within our verticals: Cloud, Service Provider, and Enterprise who view the network as critical to their success. We believe our silicon, systems, and software represent innovations that transform the economics and experience of networking, helping our customers achieve superior performance, greater choice, and flexibility, while reducing overall total cost of ownership.

Further, we intend to expand our software business by introducing new software solutions to our product portfolio that simplify the operation of networks, and allow our customers across our key verticals flexibility in consumption and deployment. Our acquisition of Mist Systems, or Mist, in 2019 accelerated our ability to execute on this belief in cloud-managed, artificial intelligence, or AI-enabled enterprise networking operations through a combination of cloud-based intelligence, enterprise-grade access points,

and EX series switches. Machine learning technology simplifies wireless and wired operations, and delivers a more agile cloud services platform.

During the first quarter of 2020, we continued to execute on our product and solutions strategy and announced Mist Premium Analytics, a service that offers enterprises a comprehensive network visibility and business insights platform to support the increasing demands of digital transformation projects. We also expanded on our connected security portfolio by offering encrypted traffic analysis for Juniper Advanced Threat Prevention Cloud and SRX Series firewalls, as well as the integration of security intelligence, or SecIntel, to the Mist platform for wireless access. With these additions to our connected security solution portfolio, we deliver a comprehensive offering to secure traffic within an organization, whether encrypted or unencrypted, throughout parts of the network, whether access, campus, WAN or data center. During the quarter, we also released our 36 port, 400 Gigabit Ethernet line card that provides 14.4-Tbps, which is based on the scalable custom Juniper Triton silicon, that helps provide programmability, scalability, automation, and pervasive security in a single, cost-optimized router.

We remain confident in our strategy and we are executing against our innovation roadmap, as each of our industry verticals transitions to cloud architectures. We believe our understanding of high-performance networking technology and cloud architecture and our strategy position us to capitalize on the industry transition to more automated, cost-efficient, scalable networks.

COVID-19 Pandemic Update

In early March 2020, COVID-19, a disease caused by a novel strain of the coronavirus, was characterized as a pandemic by the World Health Organization. Since December 2019, COVID-19 has spread rapidly, with confirmed cases in most countries and territories worldwide, and a high concentration of cases in the United States and many other countries in which we operate. The rapid spread has resulted in authorities around the world implementing numerous measures to contain the virus, such as travel bans and restrictions, quarantines, shelter-in-place orders, and business shutdowns. The COVID-19 pandemic and these containment measures have had, and are expected to continue to have, a substantial negative impact on businesses around the world and on global, regional, and national economies.

Our priorities and actions during the COVID-19 pandemic are focused on protecting the health and safety of all those we serve – our employees, our customers, our suppliers, and our communities, including implementing early and continuous updates to our health and safety policies and processes. We have successfully migrated all but a limited number of our global workforce to work remotely while local and state governments have imposed shelter-in-place orders in the United States and around the world. We have built a valuable team over the years, and we are focused on providing them with the resources that they need to meet the needs of our customers and deliver new innovations to the markets we serve, despite challenges introduced by the COVID-19 pandemic. We continue to support healthy customer demand for our products by working with our suppliers and distributors to address supply chain disruptions as well as travel restrictions that have impacted our operations. We are supporting our communities by helping the medical professionals on the front-line fight against COVID-19 by donating secure wireless connectivity kits to pop-up field hospitals. We are also giving back to the community through the Juniper Foundation, which is working to support those in need due to the COVID-19 pandemic.

We have a global supply chain footprint with our primary manufacturing partners located in China, Taiwan, Malaysia, Mexico and the United States. Our component suppliers are more geographically distributed with vendors from many countries throughout the world. We experienced lower revenues along with a slight increase in freight cost due to the supply chain disruptions in the first quarter. During the first quarter, the supply constraints we experienced were due to both constrained manufacturing capacity, particularly in China and Malaysia, as well as component parts shortages as our component vendors were also facing manufacturing challenges. These challenges resulted in extended lead-times to our customers and impacted the volume of product we were able to deliver, which negatively impacted our ability to recognize the associated revenue in the first quarter.

Challenges to our supply chain due to the impact of the COVID-19 pandemic remain dynamic; however, we have seen improvements in our manufacturing capacity. We expect several of our component suppliers to remain challenged throughout most of the second quarter as they are operating under restricted work conditions. While COVID-19 has brought unprecedented challenges, we believe that we have a robust and fairly flexible supply chain. Our supply chain team has been working to meet our customer needs by executing on a strong risk mitigation plan, including multi-sourcing, pre-ordering components, transforming our logistics network, prioritizing critical customers, working with local government agencies to understand challenges, and partnering on solutions that limit disruptions to our operations while ensuring the safety of our employees, partners and suppliers.

The COVID-19 pandemic did not have a substantial net impact to our consolidated operating results or our liquidity position in the first quarter. We continue to generate operating cash flows to meet our short-term liquidity needs, and we expect to maintain

access to the capital markets enabled by our strong credit ratings. To date, we have not observed any material impairments of our assets or a significant change in the fair value of assets due to the COVID-19 pandemic.

We entered the second quarter with strong backlog and a healthy momentum in our Cloud and Service Provider verticals. We intend to continue to work with government authorities and implement safety measures to ensure that we are able to continue manufacturing and distributing our products during the COVID-19 pandemic. However, uncertainty resulting from the pandemic could result in an unforeseen disruption to our supply chain that could impact our operations.

We may continue to experience constrained supply and could experience curtailed customer demand, either of which could adversely impact our business, results of operations and overall financial performance in future periods.

Financial Results and Key Performance Metrics Overview

The following table provides an overview of our financial results and key financial metrics (in millions, except per share amounts, percentages, and days sales outstanding, or DSO):

	Three Months Ended March 31,						
		2020		2019		\$ Change	% Change
Net revenues	\$	998.0	\$	1,001.7	\$	(3.7)	<u> </u>
Gross margin	\$	579.3	\$	582.3	\$	(3.0)	(1)%
Percentage of net revenues		58.0%		58.1%			
Operating income	\$	39.4	\$	42.7	\$	(3.3)	(8)%
Percentage of net revenues		3.9%		4.3%			
Net income	\$	20.4	\$	31.1	\$	(10.7)	(34)%
Percentage of net revenues		2.0%		3.1%			
Net income per share:							
Basic	\$	0.06	\$	0.09	\$	(0.03)	(33)%
Diluted	\$	0.06	\$	0.09	\$	(0.03)	(33)%
Operating cash flows	\$	272.2	\$	159.4	\$	112.8	71 %
Stock repurchase plan activity	\$	200.0	\$	_	\$	200.0	100 %
Cash dividends declared per common stock	\$	0.20	\$	0.19	\$	0.01	5 %
DSO		61		58		3	5 %

	As of									
	March 31, 2020		December 31, 2019		\$ Change	% Change				
Deferred revenue	\$ 1,254.8	\$	1,223.4	\$	31.4	3 %				
Product deferred revenue	\$ 111.5	\$	132.6	\$	(21.1)	(16)%				
Service deferred revenue	\$ 1,143.3	\$	1,090.8	\$	52.5	5 %				

Net Revenues: The net revenues decreased primarily due to the Service Provider vertical, partially offset by growth in Cloud and Enterprise. We believe
the decline in the Service Provider vertical is partially due to COVID-19. Our Cloud vertical grew year-over-year, primarily driven by switching and to a
lesser extent, routing, and security. The completion of the MX to PTX transition contributed toward routing growth in the Cloud vertical. Our Enterprise
vertical grew year-over-year, primarily due to services and switching, partially offset by a decline in routing. Service net revenues increased primarily due
to strong sales of support contracts.

Of our top ten customers for the first quarter of 2020, four were in Cloud, five were in Service Provider, and one was in Enterprise. Of these customers, three were located outside of the U.S.

- Gross Margin: The gross margin as a percentage of net revenues decreased primarily due to lower product revenues relative to fixed costs of goods sold, customer and product mix, and higher amortization of intangible assets associated with the acquisition of Mist, partially offset by higher service revenues.
- Operating Margin: The operating income as a percentage of net revenues decreased primarily due to the drivers described in the gross margin discussion above, and higher share-based compensation and personnel-related expenses. The decrease in operating margin was partially offset by lower engineering and development expenses, restructuring charges, and acquisition and integration costs.
- Operating Cash Flows: Net cash provided by operations increased primarily due to higher collections.

- Capital Return: We continue to return capital to our stockholders. During the fourth quarter of 2019, we entered into an accelerated share repurchase program (the "ASR"), to repurchase an aggregate of \$200.0 million in shares. Under the ASR, we made an up-front payment of \$200.0 million and received and retired 6.4 million shares of our common stock during the fourth quarter of 2019. During the first quarter of 2020, the ASR was completed, and we received and retired an additional 1.8 million shares for a total repurchase of 8.2 million shares of our common stock. During the first quarter of 2020, we also repurchased 8.5 million shares of our common stock in the open market at an average price of \$23.70 per share for an aggregate purchase price of \$200.0 million. During the first quarter of 2020, we paid quarterly dividends of \$0.20 per share, for an aggregate amount of \$65.5 million.
- DSO: DSO is calculated as the ratio of ending accounts receivable, net of allowances, divided by average daily net revenues for the preceding 90 days. DSO increased primarily due to higher accounts receivable as of March 31, 2020, compared to March 31, 2019.
- Deferred Revenue: Total deferred revenue increased as of March 31, 2020, compared to December 31, 2019, primarily due to the timing of service contract renewals, partially offset by the timing of the delivery of contractual commitments and to a lesser extent, the timing of software subscription orders.

Critical Accounting Policies and Estimates

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires us to make judgments, assumptions, and estimates that affect the amounts reported in the Condensed Consolidated Financial Statements and the accompanying notes. On an ongoing basis, we evaluate our estimates and assumptions. These estimates and assumptions are based on current facts, historical experience, and various other factors that we believe are reasonable under the circumstances to determine reported amounts of assets, liabilities, revenues, and expenses that are not readily apparent from other sources.

During the three months ended March 31, 2020, 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.

Recent Accounting Pronouncements

See Note 1, Basis of Presentation and Summary of Significant Accounting Policies, in the Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report, for a full description of the recently adopted accounting standards and recent accounting standards not yet adopted, including the actual and expected dates of adoption and estimated effects on our consolidated results of operations and financial condition, which is incorporated herein by reference.

Results of Operations

Revenues

The following table presents net revenues by product and service, customer vertical, and geographic region (in millions, except percentages):

	 Three Months Ended March 31,								
	 2020		2019		\$ Change	% Change			
Routing	\$ 314.5	\$	374.7	\$	(60.2)	(16)%			
Switching	219.8		176.4		43.4	25 %			
Security	74.5		67.6		6.9	10 %			
Total Product	608.8		618.7		(9.9)	(2)%			
Percentage of net revenues	61.0%		61.8%						
Total Service	389.2		383.0		6.2	2 %			
Percentage of net revenues	39.0%		38.2%						
Total net revenues	\$ 998.0	\$	1,001.7	\$	(3.7)	— %			
Cloud	\$ 261.9	\$	223.1	\$	38.8	17 %			
Percentage of net revenues	26.2%		22.3%						
Service Provider	375.5		435.6		(60.1)	(14)%			
Percentage of net revenues	37.6%		43.5%						
Enterprise	360.6		343.0		17.6	5 %			
Percentage of net revenues	 36.2%		34.2%						
Total net revenues	\$ 998.0	\$	1,001.7	\$	(3.7)	<u> </u>			
Americas:									
United States	\$ 529.4	\$	476.6	\$	52.8	11 %			
Other	50.1		67.0		(16.9)	(25)%			
Total Americas	 579.5		543.6		35.9	7 %			
Percentage of net revenues	58.0%		54.2%						
EMEA	255.0		286.2		(31.2)	(11)%			
Percentage of net revenues	25.6%		28.6%						
APAC	163.5		171.9		(8.4)	(5)%			
Percentage of net revenues	16.4%		17.2%						
Total net revenues	\$ 998.0	\$	1,001.7	\$	(3.7)	<u> </u>			

Product net revenues decreased primarily due to decreased Routing revenues from our Service Provider vertical, which was partially impacted by supply constraints related to COVID-19, and to a lesser extent, Enterprise, partially offset by an increase in Cloud. The decrease was partially offset by growth in Switching revenues from all of our customer verticals.

Routing revenue decreased primarily driven by Service Provider and Enterprise verticals from lower net revenues in our MX product family, which was partially impacted by COVID-19 related supply constraints, partially offset by growth in our PTX product family.

Switching revenue increased from all verticals primarily from QFX product family.

Security revenue increased primarily driven by Cloud and Service Provider, partially offset by Enterprise. The year-over-year growth was primarily driven by the growth in High-End and Mid-Range SRX, partially offset by Branch SRX.

Service net revenues increased primarily due to strong sales of support contracts.

Gross Margins

The following table presents gross margins (in millions, except percentages):

		Three Months Ended March 31,									
		2020		2019	\$	Change	% Change				
Product gross margin	\$	339.8	\$	348.7	\$	(8.9)	(3)%				
Percentage of product revenues		55.8%		56.4%							
Service gross margin		239.5		233.6		5.9	3 %				
Percentage of service revenues		61.5%		61.0%							
Total gross margin	\$	579.3	\$	582.3	\$	(3.0)	(1)%				
Percentage of net revenues		58.0%		58.1%							

Our gross margins as a percentage of net revenues have been and will continue to be affected by a variety of factors, including the mix and average selling prices of our products and services, new product introductions and enhancements, manufacturing, component and logistics costs, expenses for inventory obsolescence and warranty obligations, cost of support and service personnel, customer mix as we continue to expand our footprint with certain strategic customers, the mix of distribution channels through which our products and services are sold, and import tariffs. For example, we are subject to tariffs on networking products imported from China, which includes certain products that we import into and sell within the United States. For more information on the potential impact of tariffs on our business, see the "Risk Factors" section of Item 1A of Part II of this Report.

Product gross margin

Product gross margin as a percentage of product revenues decreased primarily due to customer and product mix, higher amortization of intangible assets associated with the acquisition of Mist, partially offset by improvements in our inventory cost management. We continue to undertake specific efforts to address certain factors impacting our product gross margin. These efforts include performance and quality improvements through engineering to increase value across our products; optimizing our supply chain and service business; pricing management; and increasing software and solution sales.

Service gross margin

Service gross margin as a percentage of service net revenues increased primarily due to higher service revenue relative to fixed costs of services.

Operating Expenses

The following table presents operating expenses (in millions, except percentages):

	 Three Months Ended March 31,							
	2020		2019		\$ Change	% Change		
Research and development	\$ 232.5	\$	227.6	\$	4.9	2 %		
Percentage of net revenues	23.3%		22.7%					
Sales and marketing	239.2		228.5		10.7	5 %		
Percentage of net revenues	24.0%		22.8%					
General and administrative	59.3		68.2		(8.9)	(13)%		
Percentage of net revenues	5.9%		6.8%					
Restructuring charges	8.9		15.3		(6.4)	(42)%		
Percentage of net revenues	0.9%		1.6%					
Total operating expenses	\$ 539.9	\$	539.6	\$	0.3	<u> </u>		
Percentage of net revenues	 54.1%		53.9%					

Total operating expenses increased slightly primarily due to higher sales and marketing, or S&M, costs related to share-based compensation, facilities and technology. The remaining increase was primarily due to research and development, or R&D, costs related to personnel-related expenses, outside services, and share-based compensation, which were partially offset by lower new product development costs. Our general and administrative, or G&A costs decreased primarily due to lower acquisition and integration costs.

During the first quarter of 2020, we initiated a restructuring plan (the "2020 Restructuring Plan"), which was designed to realign our workforce with our sales strategy, enhance productivity and cost efficiencies, and enable reinvestment in certain key priority areas, which resulted in workforce reductions and other exit costs. The restructuring charges were lower compared to the restructuring plan that was initiated in the first quarter of 2019 (the "2019 Restructuring Plan").

Other (Expense) Income, Net

The following table presents other (expense) income, net (in millions, except percentages):

	 Three Months Ended March 31,							
	2020		2019		\$ Change	% Change		
Interest income	\$ 15.0	\$	23.5	\$	(8.5)	(36)%		
Interest expense	(20.1)		(24.2)		4.1	(17)%		
(Loss) gain on investments, net	(5.8)		1.6		(7.4)	N/M		
Other	(0.2)		0.9		(1.1)	N/M		
Total other (expense) income, net	\$ (11.1)	\$	1.8	\$	(12.9)	N/M		
Percentage of net revenues	 (1.1)%		0.2%					

N/M - Not meaningful

Total other (expense) income, net increased primarily due to a decrease in interest income related to our fixed income investment portfolio, as a result of lower yields and from a lower average portfolio balance. The remaining increase was primarily due to losses on certain equity investments, partially offset from a decrease in interest expense, as a result of a lower debt balance.

Income Tax Provision

The following table presents income tax provision (in millions, except percentages):

	 Three Months Ended March 31,							
	2020		2019		\$ Change	% Change		
Income tax provision	\$ 7.9	\$	13.4	\$	(5.5)	(41)%		
Effective tax rate	28.0%		30.1%					

The effective tax rate decreased during the three months ended March 31, 2020, compared to the same period in 2019, primarily due to a change in the level of discrete items in the comparative period. For further explanation of our income tax provision, see Note 11, *Income Taxes*, in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

On June 7, 2019, the Ninth Circuit Court of Appeals, or the Court, issued an opinion in Altera Corp. v. Commissioner requiring related parties in an intercompany cost-sharing arrangement to share expenses related to share-based compensation. Altera appealed this decision to the U.S. Supreme Court on February 10, 2020. Pending final resolution of the Altera case, the Company's position on cost-sharing of share-based compensation remains unchanged. We will continue to monitor ongoing developments and potential financial statement impacts. If a judicial decision against Altera had been finalized in the reporting period, our effective tax rate for the three months ended March 31, 2020 would have been higher.

Our effective tax rate may fluctuate significantly on a quarterly basis and may be adversely affected to the extent earnings are lower than anticipated in countries that have lower statutory rates and higher than anticipated in countries that have higher statutory rates. Our effective tax rate may also fluctuate due to changes in the valuation of our deferred tax assets or liabilities, or by changes in tax laws, regulations, or accounting principles, as well as certain discrete items. See Item 1A of Part I, "Risk Factors" of this Report for a description of relevant risks which may adversely affect our results.

As a result of recommendations by the Organisation for Economic Co-operation and Development ("OECD") on Base Erosion and Profit Shifting, certain countries in EMEA and APAC have either enacted new corporate tax legislation or are considering enacting such legislation in the near future. We expect the effect of these reform measures to potentially impact long-standing tax principles, particularly in regard to transfer pricing. Consequently, we expect global tax authorities to increasingly challenge our cost sharing and other intercompany arrangements, and the related sourcing of taxable profits in global jurisdictions.

Liquidity and Capital Resources

We have funded our business primarily through our operating activities and the issuance of our long-term debt. The following table presents our capital resources (in millions, except percentages):

	As of						
	March 31, 2020	D	December 31, 2019		\$ Change	% Change	
Working capital	\$ 1,436.2	\$	1,665.9	\$ (229.7)		(14)%	
Cash and cash equivalents	\$ 1,398.6	\$	1,215.8	\$	182.8	15 %	
Short-term investments	523.0		738.0		(215.0)	(29)%	
Long-term investments	608.3		589.8		18.5	3 %	
Total cash, cash equivalents, and investments	 2,529.9		2,543.6		(13.7)	(1)%	
Long-term debt	1,712.9		1,683.9		29.0	2 %	
Cash, cash equivalents, and investments, net of debt	\$ 817.0	\$	859.7	\$	(42.7)	(5)%	

Summary of Cash Flows

The following table summarizes cash flow activity from our Condensed Consolidated Statements of Cash Flows (in millions, except percentages):

	Three Months Ended March 31,						
		2020		2019		\$ Change	% Change
Net cash provided by operating activities	\$	272.2	\$	159.4	\$	112.8	71 %
Net cash provided by (used in) investing activities		168.9		(104.1)		273.0	(262)%
Net cash used in financing activities	\$	(241.6)	\$	(389.6)	\$	148.0	(38)%

Operating Activities

Net cash provided by operations increased primarily due to timing differences related to collections from customers and payments to suppliers.

Investing Activities

Net cash provided by investing activities was \$168.9 million during the three months ended March 31, 2020, compared to net cash used in investing activities of \$104.1 million for the same period in 2019. During the three months ended March 31, 2020, the net proceeds from sales, maturities and redemptions of investments was \$190.9 million. During the three months ended March 31, 2019, net purchase of investments was \$76.2 million.

Financing Activities

Net cash used in financing activities decreased during the three months ended March 31, 2020, compared to the same period in 2019. The cash outflows during the three months ended March 31, 2020 were lower and were primarily for the payments of \$200.0 million under the 2018 Stock Purchase Program. The cash outflows during the three months ended March 31, 2019 were higher and included the payment of \$350.0 million for our Senior Notes that matured during the three months ended March 31, 2019.

Capital Return

In January 2018, our Board of Directors, which we refer to as the Board, approved a \$2.0 billion share repurchase program to replace our prior authorization, which we refer to as the 2018 Stock Repurchase Program. In October 2019, the Board authorized a \$1.0 billion increase to the 2018 Stock Repurchase Program for a total of \$3.0 billion.

In October 2019, we entered into an ASR, to repurchase an aggregate of approximately \$200.0 million of our outstanding common stock. During the three months ended December 31, 2019, we made an up-front payment of \$200.0 million pursuant to the ASR and received and retired an initial 6.4 million shares of our common stock for an aggregate price of \$160.0 million, based on the market price of \$25.15 per share of our common stock on the date of the transaction. During the three months ended March 31, 2020, the ASR was completed and an additional 1.8 million shares were received for a total repurchase of 8.2 million shares of our common stock at a volume weighted average repurchase price, less an agreed upon discount, of \$24.44 per share. The shares received by us were retired, accounted for as a reduction to stockholder's equity in the Condensed Consolidated Balance Sheets, and treated as a repurchase of common stock for purposes of calculating earnings per share.

During the first quarter of 2020, we also repurchased 8.5 million shares of our common stock in the open market for an aggregate purchase price of \$200.0 million at an average price of \$23.70 per share.

As of March 31, 2020, there was approximately \$1.5 billion of authorized funds remaining under the 2018 Stock Repurchase Program.

Future share repurchases under the 2018 Stock Repurchase Program will be subject to a review of the circumstances at that time and will be made from time to time in private transactions or open market purchases as permitted by securities laws and other legal requirements. Our 2018 Stock Repurchase Program does not have a specified termination date, but may be discontinued at any time. See Note 8, *Equity*, in the Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report for further discussion of our share repurchase program. While we expect to remain opportunistic with respect to share repurchases, we expect to place a greater emphasis on further building liquidity in the short-term.

We declared and paid a quarterly cash dividend of \$0.20 per share, totaling \$65.5 million during the three months ended March 31, 2020. Although we remain committed to paying our dividend, any future dividends, and the establishment of record and payment dates, are subject to approval by the Board or an authorized committee thereof. See Note 14, *Subsequent Events*, in the Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report for discussion of our dividend declaration subsequent to March 31, 2020.

Revolving Credit Facility

We have an unsecured revolving credit facility, which enables borrowings of up to \$500.0 million, with an option to increase the amount of the credit facility by up to an additional \$200.0 million, subject to the lenders' approval. The credit facility will terminate in April 2024, subject to a one-year maturity extension option. As of March 31, 2020, we were in compliance with all covenants and no amounts were outstanding under our credit facility.

Liquidity and Capital Resource Requirements

Liquidity and capital resources may be impacted by our operating activities as well as acquisitions, investments in strategic relationships, repurchases of additional shares of our common stock, and payment of cash dividends on our common stock. Since the enactment of the Tax Cuts and Jobs Act (the "Tax Act"), we have repatriated a significant amount of cash, cash equivalents, and investments from outside of the U.S., and plan to continue to repatriate on an ongoing basis, subject to our consideration of strategic overseas investments. We intend to use the repatriated cash to invest in the business, support value-enhancing merger and acquisitions, or M&A, and fund our return of capital to stockholders.

Based on past performance and current expectations, we believe that our existing cash and cash equivalents, short-term, and long-term investments, together with cash generated from operations and access to capital markets and the revolving credit facility will be sufficient to fund our operations; planned stock repurchases and dividends; capital expenditures; commitments and other liquidity requirements; and anticipated growth for at least the next twelve months. However, our future liquidity and capital requirements may vary materially from those now planned depending on many factors, including, but not limited to, our growth rate; the timing and amount we spend to support development efforts; the expansion of sales and marketing activities; the introduction of new and enhanced products and services; the costs to acquire or invest in businesses and technologies; an increase in manufacturing or component costs; and the risks and uncertainties detailed in the "Risk Factors" section of Item 1A of Part II of this Report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Our exposures to market risk have not changed materially since December 31, 2019. For quantitative and qualitative disclosures about market risk, see Item 7A Quantitative and Qualitative Disclosures about Market Risk, in our Form 10-K.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Attached as exhibits to this Report are certifications of our principal executive officer and principal financial officer, which are required in accordance with Rule 13a-14 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). This "Controls and Procedures" section includes information concerning the controls and related evaluations referred to in the certifications and it should be read in conjunction with the certifications for a more complete understanding of the topics presented.

We carried out an evaluation, under the supervision and with the participation of our management, including 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 Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based upon that evaluation, our principal executive officer and principal financial officer concluded that, as of the end of the period covered in this Report, our disclosure controls and procedures were effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Controls Over Financial Reporting

There were no changes in our internal control over financial reporting during the first quarter of 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any significant impact to our internal controls over financial reporting despite the fact that most of our employees are working remotely due to the COVID-19 pandemic. The design of our processes and controls allow for remote execution with accessibility to secure data. We are continually monitoring and assessing the COVID-19 situation to minimize the impact, if any, on the design and operating effectiveness on our internal controls.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

The information set forth under the "Legal Proceedings" section in Note 13, Commitments and Contingencies, in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report, is incorporated herein by reference.

Item 1A. Risk Factors

Factors That May Affect Future Results

Investments in our securities involve significant risks. Even small changes in investor expectations for our future growth and earnings, whether as a result of actual or rumored financial or operating results, changes in the mix of the products and services sold, acquisitions, industry changes, or other factors, including, but not limited to, the effects of the COVID-19 pandemic, could trigger, and have triggered in the past, significant fluctuations in the market price of our common stock. Investors in our securities should carefully consider all of the relevant factors disclosed by us, including, but not limited to, the following factors that could affect our business, operating results, and stock price.

The effects of the COVID-19 pandemic have significantly affected how we and our customers are operating our businesses, and the duration and extent to which this will impact our future results of operations and overall financial performance remains uncertain.

In December 2019, a novel coronavirus disease ("COVID-19") was reported. In January 2020, the World Health Organization ("WHO") declared it a Public Health Emergency of International Concern and on March 11, 2020, the WHO characterized COVID-19 as a pandemic. This significant outbreak of epidemic, pandemic, or contagious diseases in the human population has resulted in a widespread health crisis that is adversely affecting the broader economies, financial markets and overall demand environment for our products and services.

As a result of the COVID-19 pandemic, our operations have also begun to be negatively affected by a range of external factors related to the COVID-19 pandemic that are not within our control. For example, most U.S. states and countries worldwide have imposed and may continue to impose from time-to-time for the foreseeable future, a wide range of restrictions on the physical movement of our employees, partners, and customers to limit the spread of COVID-19, including travel restrictions and shelter-in-place orders. We have requested all but a limited number of our global workforce to work remotely while shelter-in-place requirements and travel restrictions are in effect, all of which have begun to change how we operate our business. If the COVID-19 pandemic has a substantial impact on our employees, partners or customers health, attendance or productivity, our results of operations and overall financial performance may be adversely impacted.

Moreover, the conditions caused by the COVID-19 pandemic could adversely affect our customers' ability or willingness to purchase our products or services or to make payments on existing contracts with us, delay prospective customers' purchasing decisions, delay the provisioning of our offerings, lengthen payment terms, or affect attrition rates, all of which could adversely affect our future sales, operating results and overall financial performance. Further, the COVID-19 pandemic has adversely affected and could continue to adversely affect our ability to provide or deliver products and on-site services to our customers. For example, during the first quarter of fiscal 2020, the COVID-19 pandemic caused us to experience supply constraints due to both constrained manufacturing capacity as well as component parts shortages as our component vendors were also facing manufacturing challenges. These challenges resulted in extended lead-times to our customers and had a negative impact on our ability to recognize associated revenue in the first quarter. While the situation remains very dynamic, we have seen improvements in our manufacturing capacity. However, we expect several of our component suppliers will remain challenged throughout most of the second quarter as they are operating under restricted work conditions.

While the potential economic impact brought by the COVID-19 pandemic may be difficult to assess or predict, the pandemic has resulted in significant disruption of global financial markets, and a recession or long-term market downturn resulting from the spread of COVID-19 could materially impact the value of our common stock, impact our access to capital and affect our business in the near and long-term.

The duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately forecasted at this time, such as the severity and transmission rate of the disease, the extent and effectiveness of containment actions and the impact of these and other factors on our employees, suppliers, customers, partners and vendors. If we are not able to respond to and manage the impact of such events effectively and if the macroeconomic conditions of the general economy or the industries

in which we operate do not improve, or worsen from present levels, our business, operating results, financial condition and cash flows could be adversely affected.

Our quarterly results are unpredictable and subject to substantial fluctuations; as a result, we may fail to meet the expectations of securities analysts and investors, which could adversely affect the trading price of our common stock.

Our revenues and operating results may vary significantly from quarter-to-quarter due to a number of factors, many of which are outside of our control and any of which may cause our stock price to fluctuate.

The factors that may cause our quarterly results to vary quarter by quarter and be unpredictable include, but are not limited to:

- unpredictable ordering patterns and limited or reduced visibility into our customers' spending plans and associated revenue;
- · changes in customer mix;
- changes in the demand for our products and services;
- changes in the mix of products and services sold:
- changes in the mix of geographies in which our products and services are sold;
- changing market and economic conditions, including the impacts due to tariffs and the COVID-19 pandemic;
- current and potential customer, partner and supplier consolidation, concentration, and economic disruption;
- price and product competition;
- long sales, qualification and implementation cycles;
- success in new and evolving markets and emerging technologies;
- ineffective legal protection of our intellectual property rights in certain countries;
- how well we execute on our strategy and operating plans and the impact of changes in our business model that could result in significant restructuring charges;
- ability of our customers, channel partners, contract manufacturers and suppliers to purchase, market, sell, manufacture or supply our products (or components of our products) and services, including as a result of disruptions arising from the COVID-19 pandemic;
- financial stability of our customers, including the solvency of private sector customers, which may be impacted by the COVID-19 pandemic and statutory
 authority for government customers to purchase goods and services;
- our ability to achieve targeted gross margins and operating expenses;
- changes in tax laws or accounting rules, or interpretations thereof;
- changes or suspensions in the amount and frequency of share repurchases or dividends;
- regional economic and political conditions which may be aggravated by unanticipated global events;
- increasing cyber-security threats to our internal network and those of our suppliers, partners, and customers;
- seasonality
- factors beyond our control resulting from public health epidemics, pandemics and similar outbreaks as well as the fear of exposure to a widespread health epidemic, such as the COVID-19 pandemic, manufacturing restrictions, travel restrictions and shelter-in-place orders to control the spread of a disease regionally and globally, and limitations on the ability of our employees and our supplier's and customer's employees to work and travel; and
- other factors beyond our control such as the effects of global or regional economic instability, investment performance, climate change, natural or manmade disasters, political unrest, hostilities and armed conflict within or among countries, acts of terrorism. or other unanticipated extraordinary externalities that may affect the global economy and could have a material adverse effect on the Company's business, results of operations and financial condition.

For example, we, and many companies in our industry, traditionally experience adverse seasonal fluctuations in customer spending, particularly in the first quarter. In addition, while we may have backlog orders for products that have not shipped, we believe that our backlog may not be a reliable indicator of future operating results for a number of reasons, including, but not limited to, project delays, changes in project scope and the fact that our customers may cancel purchase orders or change delivery schedules without significant penalty, and the potential negative impacts related to the global spread of COVID-19.

Furthermore, market trends, competitive pressures, commoditization of products, rebates and discounting, increased component, manufacturing or logistics costs or supply chain disruptions, issues with product or service quality (including the quality of our components), regulatory impacts, tariffs and other factors beyond our control, including the rapidly evolving global COVID-19 pandemic, which may result in reductions in revenue or pressure on gross margins in a given period, and may necessitate adjustments to our operations. Such adjustments may be difficult or impossible to execute in the short or medium term. The extent to which the COVID-19 pandemic impacts our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the speed and extent of geographic spread of the disease, the duration of the outbreak, travel

restrictions and social distancing in the affected areas, business closures or business disruptions and the effectiveness of actions taken in the affected areas to contain and treat the disease.

As a result of the factors described above, as well as other variables affecting our operating results, we believe that quarter-to-quarter comparisons of operating results are not necessarily a good indication of what our future performance will be. In some prior periods, our operating results (or portions of our operating results) have been below our guidance, our long-term financial model or the expectations of securities analysts or investors, which has at times coincided with a decline in the price of our common stock. This may happen again in the future, in which case the price of our common stock may decline. Such a decline could also occur, and has occurred in the past, even when we have met our publicly stated revenues and/or earnings guidance.

We expect our gross margins and operating margins to vary over time.

We expect our product and service gross margins to vary, both in the near-term and in the long-term, and may be adversely affected in the future by numerous factors, some of which have occurred and may occur in the future, including customer, vertical, product and geographic mix shifts, an increase or decrease in our software sales or services we provide, increased price competition in one or more of the markets in which we compete, changes in the actions of our competitors or their pricing strategies, which may be difficult to predict and respond to, modifications to our pricing strategy in order to gain footprint in certain markets or with certain customers, currency fluctuations that impact our costs or the cost of our products and services to our customers, increases in material, labor, logistics, warranty costs, or inventory carrying costs, excess product component or obsolescence charges from our contract manufacturers, issues with manufacturing or component availability, issues relating to the distribution of our products and provision of our services, quality or efficiencies, increased costs due to changes in component pricing or charges incurred due to inaccurately forecasting product demand, warranty related issues, the impact of tariffs, or our introduction of new products and enhancements or entry into new markets with different pricing and cost structures. For example, in fiscal year 2019, our gross margin was relatively flat as compared to fiscal year 2018. In fiscal year 2018, our margins decreased as compared to fiscal year 2017, primarily due to lower net revenues and product mix. In fiscal year 2017, our margins decreased as compared to fiscal year 2017, primarily due to lower net revenues and product mix. In fiscal year 2017, our margins decreased as compared to fiscal year 2016, primarily due to lower product net revenues and product mix, resulting from the year-over-year decline in routing revenues, our customers' architectural shifts, and higher costs of certain memory components. Failure

A limited number of our customers comprise a material portion of our revenues and any changes in the way they purchase products and services from us could affect our business. In addition, there is an ongoing trend toward consolidation in the industry in which our customers and partners operate. Any decrease in revenues from our customers or partners could have an adverse effect on our net revenues and operating results.

A material portion of our net revenues, across each customer vertical, depends on sales to a limited number of customers and distribution partners. Changes in the business requirements or focus, vendor selection, project prioritization, financial prospects, capital resources, and expenditures, or purchasing behavior (including product mix purchased or delays in deployment) of our key customers could significantly decrease our sales to such customers or could lead to delays or cancellations of planned purchases of our products or services, which increases the risk of quarterly fluctuations in our revenues and operating results. Any of these factors could adversely affect our business, financial condition, and results of operations.

In addition, in recent years, there has been movement towards consolidation in the telecommunications industry (for example, CenturyLink, Inc.'s acquisition of Level 3 Communications, Inc., Vodafone India's acquisition of Idea Cellular Ltd. and T-Mobile US, Inc.'s acquisition of Sprint Corp.) and that consolidation trend has continued. Certain telecommunications companies have also moved towards vertical consolidation through acquisitions of media and content companies, such as Verizon's acquisitions of Yahoo and BlueJeans, AT&T's acquisition of Time Warner, and Comcast's acquisition of Sky. If our customers or partners are parties to consolidation transactions they may delay, suspend or indefinitely reduce or cancel their purchases of our products or other direct or indirect unforeseen consequences could harm our business, financial condition, and results of operations.

Fluctuating economic conditions make it difficult to predict revenues and gross margin for a particular period and a shortfall in revenues or increase in costs of production may harm our operating results.

Our revenues and gross margin depend significantly on general economic conditions and the demand for products in the markets in which we compete. Economic weakness or uncertainty, customer financial difficulties, and constrained spending on network expansion and enterprise infrastructure have in the past resulted in, and may in the future result in, decreased revenues and earnings. Such factors could make it difficult to accurately forecast revenues and operating results and could negatively affect our ability to provide accurate forecasts to our contract manufacturers and manage our contract manufacturer relationships and other expenses. In addition, economic instability or uncertainty, continued turmoil in the geopolitical environment in many parts of the world and

other events beyond our control, such as the COVID-19 pandemic, have, and may continue to, put pressure on economic conditions, which has led and could lead, to reduced demand for our products, to delays or reductions in network expansions or infrastructure projects, and/or higher costs of production. More generally speaking, economic weakness may also lead to longer collection cycles for payments due from our customers, an increase in customer bad debt, restructuring initiatives and associated expenses, and impairment of investments. Furthermore, instability in the global markets may adversely impact the ability of our customers to adequately fund their expected expenditures, which could lead to delays or cancellations of planned purchases of our products or services. Our operating expenses are largely based on anticipated revenue trends and a high percentage of our expenses is, and will continue to be, fixed in the short and medium term. Uncertainty about future economic conditions also makes it difficult to forecast operating results and to make decisions about future investments. Future or continued economic weakness, failure of our customers and markets to recover from such weakness, customer financial difficulties, increases in costs of production, and reductions in spending on network maintenance and expansion could result in price concessions in certain markets or have a material adverse effect on demand for our products and consequently on our business, financial condition, and results of operations.

Our success depends upon our ability to effectively plan and manage our resources, and restructure our business through rapidly fluctuating economic and market conditions, and such actions may have an adverse effect on our financial and operating results.

Our ability to successfully offer our products and services in a rapidly evolving market requires an effective planning, forecasting, and management process to enable us to effectively scale and adjust our business and business models in response to fluctuating market opportunities and conditions.

From time to time, we have increased investment in our business by, for example, increasing headcount, acquiring companies, and increasing our investment in R&D, sales and marketing, and other parts of our business. Conversely, in the last few years and in 2020, we have initiated restructuring plans to realign our workforce as a result of organizational and leadership changes, align our execution priorities, increase operational efficiencies, and consolidate facilities, which resulted in restructuring charges. Some of our expenses related to such efforts are fixed costs that cannot be rapidly or easily adjusted in response to fluctuations in our business or numbers of employees. Rapid changes in the size, alignment or organization of our workforce, including sales account coverage, could adversely affect our ability to develop and deliver products and services as planned or impair our ability to realize our current or future business and financial objectives. Our ability to achieve the anticipated cost savings and other benefits from our restructuring initiatives within the expected time frame is subject to many estimates and assumptions, which are subject to significant economic, competitive, and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we are unsuccessful at implementing changes, or if other unforeseen events occur, our business and results of operations could be adversely affected.

We face intense competition that could reduce our revenues and adversely affect our business and financial results.

Competition is intense in the markets that we serve. The routing and switching markets have historically been dominated by Cisco with competition coming from other companies such as Nokia, Arista, and Huawei. In the security market, we face intense competition from Cisco and Palo Alto Networks, as well as companies such as Check Point and Fortinet. Further, a number of other small public and private companies have products or have announced plans for new products to address the same challenges and markets that our products address.

In addition, actual or speculated consolidation among competitors, or the acquisition by, or of, our partners and/or resellers by competitors can increase the competitive pressures faced by us as customers may delay spending decisions or not purchase our products at all. A number of our competitors have substantially greater resources and can offer a wider range of products and services for the overall network equipment market than we do. In addition, some of our competitors have become more integrated, including through consolidation and vertical integration, and offer a broader range of products and services, which could make their solutions more attractive to our customers. Many of our competitors sell networking products as bundled solutions with other IT products, such as computer and storage systems. If we are unable to compete successfully against existing and future competitors on the basis of product offerings or price, we could experience a loss in market share and revenues and/or be required to reduce prices, which could reduce our gross margins, and which could materially and adversely affect our business, financial condition, and results of operations. Our partners and resellers generally sell or resell competing products on a non-exclusive basis and consolidation could delay spending or require us to increase discounts to compete, which could also adversely affect our business.

The long sales and implementation cycles for our products, as well as our expectation that some customers will sporadically place large orders with short lead times, may cause our revenues and operating results to vary significantly from quarter-to-quarter.

A customer's decision to purchase certain of our products, particularly new products, involves a significant commitment of its resources and a lengthy evaluation and product qualification process. As a result, the sales cycle may be lengthy. In particular, customers making critical decisions regarding the design and implementation of large network deployments may engage in very lengthy procurement processes that may delay or impact expected future orders. Throughout the sales cycle, we may spend considerable time educating and providing information to prospective customers regarding the use and benefits of our products. Even after making the decision to purchase, customers may deploy our products slowly and deliberately. Timing of deployment can vary widely and depends on the skill set of the customer, the size of the network deployment, the complexity of the customer's network environment, and the degree of hardware and operating system configuration necessary to deploy the products. Customers with large networks usually expand their networks in large increments on a periodic basis. Accordingly, we may receive purchase orders for significant dollar amounts on an irregular basis. These long cycles, as well as our expectation that customers will tend to sporadically place large orders with short lead times, both of which may be exacerbated by the impact of global economic weakness, may cause revenues and operating results to vary significantly and unexpectedly from quarter-to-quarter.

The timing of product orders and deliveries and/or our reliance on revenue from sales of certain software or subscriptions and professional, support and maintenance services may cause us to recognize revenue in a different period than the one in which a transaction takes place.

Due to the cost, complexity, and custom nature of configurations required by our customers, a number of our network equipment products are built as orders are received. The volume of orders received late in any given fiscal quarter remains unpredictable. If orders for certain products are received late in any quarter, we may not be able to recognize revenue for these orders in the same period, which could adversely affect our ability to meet our expected revenues for such quarter. Similarly, if we were to take actions to encourage customers to place orders or accept deliveries earlier than anticipated, our ability to meet our expected revenues in future quarters could be adversely affected.

In addition, services revenue accounts for a significant portion of our revenue, comprising 35%, 33%, and 31% of total revenue in fiscal year 2019, 2018, and 2017, respectively. Sales of new or renewal professional services, support, and maintenance contracts may decline and/or fluctuate as a result of a number of factors, including end-customers' level of satisfaction with our products and services, the prices of our products and services or those offered by our competitors, and reductions in our end-customers' spending levels. We recognize professional services as services are delivered and support, and maintenance revenue periodically over the term of the relevant service period.

The introduction of new software products and services is part of our intended strategy to expand our software business, and certain software revenues may be recognized periodically over the term of the relevant use period or subscription period. As a result, certain software, subscription and support, and maintenance revenue we report each fiscal quarter is derived from the recognition of deferred revenue from contracts entered into during previous fiscal quarters. Consequently, any fluctuation in such new or renewed contracts in any one fiscal quarter may not be fully or immediately reflected in revenue and could negatively affect our revenue in future fiscal quarters. Accordingly, the effect of significant downturns in new or renewed sales of certain software products, subscriptions or support, and maintenance is not reflected in full in our operating results until future periods. Also, it is difficult for us to rapidly increase such software or services revenue through additional sales in any period, as revenue from those software, subscription and support, and maintenance contracts must be recognized over the applicable period.

Additionally, we determine our operating expenses based on our anticipated revenues and technology roadmap and a high percentage of our expenses are fixed in the short and medium term. As a result, a failure or delay in generating or recognizing revenue could cause significant variations in our operating results and operating margin from quarter-to-quarter.

We sell our products to customers that use those products to build networks and IP infrastructure, and if the demand for network and IP systems does not continue to grow, our business, financial condition, and results of operations could be adversely affected.

A substantial portion of our business and revenues depends on the growth of secure IP infrastructure and customers that depend on the continued growth of IP services to deploy our products in their networks and IP infrastructures. As a result of changes in the economy, capital spending or the building of network capacity in excess of demand (all of which, have in the past, particularly affected telecommunications service providers), spending on IP infrastructure can vary, which could have a material adverse effect on our business, financial condition, and results of operations. In addition, a number of our existing customers are evaluating the

build-out of their next generation networks. During the decision-making period when our customers are determining the design of those networks and the selection of the software and equipment they will use in those networks, such customers may greatly reduce or suspend their spending on secure IP infrastructure. Any reduction or suspension of spending on IP infrastructure is difficult to predict, and may be due to events beyond our control, such as the COVID-19 pandemic. This, in turn, can make it more difficult to accurately predict revenues from customers, can cause fluctuations in the level of spending by customers and, even where our products are ultimately selected, can have a material adverse effect on our business, financial condition, and results of operations.

If we do not successfully anticipate technological shifts, market needs and opportunities, and develop products, product enhancements and business strategies that meet those technological shifts, needs and opportunities, or if those products are not made available or strategies are not executed in a timely manner or do not gain market acceptance, we may not be able to compete effectively and our ability to generate revenues will suffer.

The markets for our products are characterized by rapid technological change, frequent new product introductions, changes in customer requirements, continuous pricing pressures and a constantly evolving industry. We may not be able to anticipate future technological shifts, market needs and opportunities or be able to develop new products, product enhancements or business strategies to meet such technological shifts, needs or opportunities in a timely manner or at all. For example, the move from traditional WAN infrastructures towards software-defined WAN has been receiving considerable attention. If we fail to anticipate market requirements or opportunities or fail to develop and introduce new products, product enhancements or business strategies to meet those requirements or opportunities in a timely manner, it could cause us to lose customers, and such failure could substantially decrease or delay market acceptance and sales of our present and future products and services, which would significantly harm our business, financial condition, and results of operations. In addition, if we invest time, energy and resources in developing products for a market that does not develop, it could likewise significantly harm our business, financial condition, and results of operations. Even if we are able to anticipate, develop, and commercially introduce new products, enhancements or business strategies, there can be no assurance that new products, enhancements or business strategies will achieve widespread market acceptance.

In recent years, we have announced a number of new products and enhancements to our hardware and software products across routing, switching and security. The success of our new products depends on several factors, including, but not limited to, component costs, timely completion and introduction of these products, prompt resolution of any defects or bugs in these products, our ability to support these products, differentiation of new products from those of our competitors and market acceptance of these products.

The introduction of new software products is part of our intended strategy to expand our software business. We have also disaggregated certain software from certain hardware products, such that customers may purchase or license our hardware and software products independently, which we expect could in time enable our hardware to be deployed with third-party networking applications and services and our software to be used with third-party hardware. The success of our strategy to expand our software business, including our strategy to disaggregate software from certain hardware products, is subject to a number of risks and uncertainties, including:

- the additional development efforts and costs required to create new software products and/or to make our disaggregated products compatible with multiple technologies;
- the possibility that our new software products or disaggregated products may not achieve widespread customer adoption;
- the possibility that our strategy could erode our revenue and gross margins;
- the impact on our financial results of longer periods of revenue recognition for certain types of software products and changes in tax treatment associated with software sales;
- the additional costs associated with regulatory compliance and changes we need to make to our distribution chain in connection with increased software sales:
- the ability of our disaggregated hardware and software products to operate independently and/or to integrate with current and future third-party products; and
- issues with third-party technologies used with our disaggregated products may be attributed to us.

If any of our new products or business strategies do not gain market acceptance or meet our expectations for growth, our ability

to meet future financial targets may be adversely affected and our competitive position and our business and financial results could be harmed.

We are dependent on contract manufacturers and original design manufacturers with whom we do not have long-term supply contracts, and changes to or disruptions in those relationships or manufacturing processes, expected or unexpected, may result in delays that could cause us to lose revenues and damage our customer relationships.

We depend on independent contract manufacturers and original design manufacturers (each of which is a third-party manufacturer for numerous companies) to manufacture our products. Although we have contracts with our contract manufacturers and original design manufacturers, these contracts do not require them to manufacture our products on a long-term basis in any specific quantity or at any specific price. In addition, it is time-consuming and costly to qualify and implement additional contract manufacturer and original design manufacturer relationships. Therefore, if we fail to effectively manage our contract manufacturer and original design manufacturer relationships, which could include failing to provide accurate forecasts of our requirements, or if one or more of them experiences delays, disruptions, or quality control problems in their manufacturing operations, or if we had to change or add additional contract manufacturers, original design manufacturers, or contract manufacturing sites, our ability to ship products to our customers could be delayed. We have experienced in the past and may experience in the future an increase in the expected time required to manufacture our products or ship products, including delays due to the manufacturing restrictions, travel restrictions and shelter-in-place orders to control the spread of COVID-19 regionally and globally. Such delays could result in supply shortfalls that damage our ability to meet customer demand for those products and could cause our customers to purchase alternative products from our competitors. Also, the addition of manufacturing locations or contract manufacturers, original design manufacturers, or the introduction of new products by us would increase the complexity of our supply chain management. Moreover, a significant portion of our manufacturing is performed in China, Malaysia and other foreign countries and is therefore subject to risks associated with doing business outside of the United States, including import tariffs, disruptions to ou

For example, in 2018, the United States imposed a tariff on certain networking products imported from China and in 2019, the United States increased the tariffs on these networking products and expanded the list of products subject to the tariff. Certain products that we import into and sell within the United States are included on the list of products subject to these tariffs. We have incurred increased costs due to our efforts to attempt to mitigate the impact of the tariffs. In some cases, the tariffs have been passed on and may continue to be passed on to customers resulting in higher prices for our customers, which may have reduced, or may continue to reduce, customer demand for our products or increased cost of goods sold. Similarly, many of the products that we source from China are transported by air cargo from Hong Kong, which has experienced recent political demonstrations that have previously resulted in cancellations or delays in flights in and out of Hong Kong. If these demonstrations and their impact on air shipments resume, we could experience delays in product deliveries or be required to change our shipping practices.

In addition, delays in production or delays in product deliveries due to the COVID-19 pandemic have adversely affected and may continue to adversely affect our business, financial condition, and results of operations. For example, during the first quarter of fiscal 2020, the COVID-19 pandemic caused us to experience supply constraints due to both constrained manufacturing capacity, particularly in China and Malaysia, as well as component parts shortages as our component vendors were also facing manufacturing challenges. These challenges resulted in extended lead-times to our customers and had a negative impact on our ability to recognize associated revenue in the first quarter. We intend to continue to work with government authorities and implement safety measures to ensure that we are able to continue manufacturing and distributing our products during the COVID-19 pandemic. However, uncertainty resulting from the pandemic could result in an unforeseen disruption to our supply chain (for example a closure of a key manufacturing or distribution facility or the inability of a key supplier or transportation supplier to source and transport materials) that could impact our operations.

The duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately forecasted at this time, such as the severity and transmission rate of the disease, the extent and effectiveness of containment actions, and the impact of these and other factors on our employees, suppliers, customers, partners, and vendors. If we are not able to respond to and manage the impact of such events effectively, and if macroeconomic conditions of the general economy or the industries in which we operate do not improve, or worsens from present levels, our business, operating results, financial condition and cash flows could be adversely affected.

We are dependent on sole source and limited source suppliers, including for key components, which makes us susceptible to shortages, quality issues or price fluctuations in our supply chain, and we may face increased challenges in supply chain management in the future.

We rely on single or limited sources for many of our components. During periods of high demand for electronic products or supply constraints by manufacturers of electronic components, component shortages are possible, and the predictability of the availability of such components may be limited. For example, we have experienced industry-wide supply constraints related to power management components. In addition, some components used in our networking solutions have in the past and may in the future experience extended lead times and higher pricing, given the demand in the market. Any future spike in growth in our business, the use of certain components we share in common with other companies, in IT spending or the economy in general, is likely to create greater short-term pressures on us and our suppliers to accurately forecast overall component demand and to establish optimal component inventories. If shortages or delays persist, we may not be able to secure enough components at reasonable prices or of acceptable quality to build and deliver products in a timely manner, and our revenues, gross margins and customer relationships could suffer. Additionally, if certain components that we receive from our suppliers have defects or other quality issues, we may have to replace or repair such components, and we could be subject to claims based on warranty, product liability, epidemic or delivery failures that could lead to significant expenses. We maintain product liability insurance, but there is no guarantee that such insurance will be available or adequate to protect against all such claims. We have experienced, and from time-to-time may experience, component shortages or quality issues that resulted, or could result, in delays of product shipments, revenue charges that impact our gross margins, and/or warranty or other claims or costs. We also currently purchase numerous key components, including ASICs and other semiconductor chips, from single or limited sources and many of our component suppliers are concentrated in China and Korea. In addition, there has been consolidation among certain suppliers of our components. For example, GLOBALFOUNDRIES acquired IBM's semiconductor manufacturing business, Avago Technologies Limited acquired Broadcom Corporation, Intel Corporation acquired Altera Corporation ("Altera"), and Cisco has announced its intent to acquire Acacia Communications, Inc. Consolidation among suppliers can result in the reduction of the number of independent suppliers of components available to us, which could negatively impact our ability to access certain component parts or the prices we have to pay for such parts, which may impact our gross margins. In addition, our suppliers may determine not to continue a business relationship with us for other reasons that may be beyond our control or may seek to impose significant price increases. Any disruptions to our supply chain or significant increase in components cost could decrease our sales, earnings and liquidity or otherwise adversely affect our business and result in increased costs. Such a disruption could occur as a result of any number of events, including, but not limited to, an extended closure of or any slowdown at our supplier's plants or shipping delays due to efforts to limit the spread of COVID-19, increases in wages that drive up prices, the imposition of regulations, quotas or embargoes on components, labor stoppages, transportation failures affecting the supply chain and shipment of materials and finished goods, third-party interference in the integrity of the products sourced through the supply chain, the unavailability of raw materials, severe weather conditions, adverse effects of climate change, natural disasters, civil unrest, military conflicts, geopolitical developments, war or terrorism and disruptions in utility and other services.

The development of alternate sources for components is time-consuming, difficult, and costly. In addition, the lead times associated with certain components are lengthy and preclude rapid changes in quantities and delivery schedules. Also, long-term supply and maintenance obligations to customers increase the duration for which specific components are required, which may further increase the risk of component shortages or the cost of carrying inventory. In the event of a component shortage, supply interruption or significant price increase from these suppliers, we may not be able to develop alternate or second sources in a timely manner. If we are unable to buy these components in quantities sufficient to meet our requirements on a timely basis, we will not be able to deliver products and services to our customers, which would seriously affect present and future sales, which would, in turn, adversely affect our business, financial condition, and results of operations.

In addition, the development, licensing, or acquisition of new products in the future may increase the complexity of supply chain management. Failure to effectively manage the supply of components and products would adversely affect our business.

If we fail to accurately predict our manufacturing requirements, we could incur additional costs or experience manufacturing delays, which would harm our business.

We provide demand forecasts for our products to our contract manufacturers and original design manufacturers, who order components and plan capacity based on these forecasts. If we overestimate our requirements, our original design or contract manufacturers may assess charges, or we may have liabilities for excess inventory, each of which could negatively affect our gross margins. For example, in certain prior quarters, our gross margins were reduced as a result of an inventory charge resulting from inventory we held in excess of forecasted demand. In addition, some optical modules we use are experiencing faster product transitions than our other products, which increases the risk that we could have excess inventory of those modules. Conversely, lead times for required materials and components vary significantly and depend on factors such as the specific supplier, contract

terms, and the demand for each component at a given time, which may be affected by external factors, including the impact of the COVID-19 pandemic. Given that our contract manufacturers are third-party manufacturers for numerous other companies, if we underestimate our requirements, as we have in certain prior quarters with respect to certain products, our contract manufacturers may have inadequate time, materials, and/or components required to produce our products. This could increase costs or delay or interrupt manufacturing of our products, resulting in delays in shipments and deferral or loss of revenues and could negatively impact customer satisfaction.

System security risks, data protection breaches, and cyber-attacks could compromise our and our customers' proprietary information, disrupt our internal operations and harm public perception of our products, which could cause our business and reputation to suffer and adversely affect our stock price.

In the ordinary course of business, we store sensitive data, including intellectual property, personal data, our proprietary business information and that of our employees, contractors, customers, suppliers and business partners on our networks. In addition, we store sensitive data through cloud-based services that may be hosted by third parties and in data center infrastructure maintained by third parties. The secure maintenance of this information is critical to our operations and business strategy. The growing cyber risk environment means that individuals, companies, and organizations of all sizes, including Juniper, have been and are increasingly subject to attacks and attempted intrusions, including recent attempts, on their and their vendors' networks and systems by a wide range of actors, including but not limited to nation states, criminal enterprises, and terrorist organizations, on an ongoing and regular basis.

Despite our security measures, and those of our third-party vendors, our information technology and infrastructure has experienced breaches and may be subject or vulnerable in the future to breaches or attacks by computer programmers, hackers or sophisticated nation-state and nation-state supported actors or breaches due to employee error or wrongful conduct, malfeasance, or other disruptions. If any breach or attack compromises our networks or those of our vendors', creates system disruptions or slowdowns or exploits security vulnerabilities of our products, the information stored on our networks or those of our customers, suppliers or business partners could be accessed and modified, publicly disclosed, lost, destroyed or stolen, and we may be subject to claims for contractual, tort or equitable liability from our customers, suppliers, business partners and others, including regulatory entities, and suffer reputational and financial harm. In addition, hardware, components and software (including operating system software) and applications that we develop, manufacture, or procure from third parties may contain defects in design or manufacture, including "bugs", vulnerabilities and other problems that could unexpectedly interfere with the operation of our networks, or expose us or our products to cyber attacks, or be exploited to gain unauthorized access to our or our customers' systems and information. This can be true even for "legacy" products that have been determined to have reached an end of life engineering status but will continue to be supported for a limited amount of time. Furthermore, third parties may attempt to exfiltrate data through the introduction into the Information and Communications Technology supply chain of malicious products and components that are designed to defeat or circumvent encryption and other cybersecurity measures, and if successful, such actions could diminish customer trust in our products, harm our business reputation, and adversely affect our business and financial conditi

The COVID-19 pandemic may adversely affect our systems, and the health of members of our internal security team who monitor and address the cyber threats and attacks against Juniper. In particular, the internet is currently experiencing an increase in cyber threats during the COVID-19 pandemic in the form of phishing emails, malware attachments and malicious websites which seemingly offer information regarding COVID-19. We have employed efforts to mitigate any potential impact that could result from increased cyber threats and the loss of members of our internal security team and by providing our employees with enhanced awareness materials and training, updating our business continuity plans, and cross training staff.

As a result of any actual or perceived breach of security that occurs in our network or in the network of a customer of our products, regardless of whether the breach is attributable to our products, the market perception of the effectiveness of our products and our overall reputation could be harmed. As a large, well known provider of networking products, cyber attackers regularly and specifically target our products or attempt to imitate us or our products in order to compromise a network. Because the techniques used by attackers, many of whom are highly sophisticated and well-funded, to access or sabotage networks change frequently and generally are not recognized until after they are used, we may be unable to anticipate or immediately detect these techniques or the vulnerabilities they have caused. This could impede our sales, manufacturing, distribution or other critical functions, which could have an adverse impact on our financial results. The economic costs to us to eliminate or alleviate cyber or other security problems, bugs, viruses, worms, malicious software systems, and security vulnerabilities could be significant and may be difficult to anticipate or measure, because the damage may differ based on the identity and motive of the attacker, which are often difficult to pinpoint.

Additionally, we could be subject to measures that regulate the security of the types of products we sell, such as the California Internet of Things (IoT) security law (SB-327), which became enforceable in 2020, which can result in increased costs and delays in product releases and changes in features to achieve compliance which may impact customer demand for our products, as well as regulatory investigations, potential fines, and litigation in connection with a compliance concern, security breach or related issue and potential liability to third parties arising from such breaches. Further, in response to actual or anticipated cybersecurity regulations or contractual security requirements negotiated with our customers, we may need to make changes to existing policies, processes and supplier relationships that could impact product offerings, release schedules and service response times which could adversely affect the demand for and sales of our products and services.

We rely on value-added and other resellers, as well as distribution partners, to sell our products, and disruptions to, or our failure to effectively develop and manage, our distribution channel and the processes and procedures that support it could adversely affect our ability to generate revenues from the sale of our products.

Our future success is highly dependent upon establishing and maintaining successful relationships with a variety of value-added and other reseller and distribution partners, including our worldwide strategic partners such as Ericsson, IBM, Nippon Telegraph and Telephone Corporation, and NEC Corporation. The majority of our revenues are derived through value-added resellers and distributors, most of which also sell our competitors' products, and some of which sell their own competing products. Our revenues depend in part on the performance of these partners. The loss of or reduction in sales to our resellers or distributors could materially reduce our revenues. Our competitors may in some cases be effective in leveraging their market share positions or in providing incentives to current or potential resellers and distributors to favor their products or to prevent or reduce sales of our products. If we fail to develop and maintain relationships with our partners, fail to develop new relationships with value-added resellers and distributors in new markets, fail to expand the number of distributors and resellers in existing markets, fail to manage, train or motivate existing value-added resellers and distributors effectively, determine that we cannot continue to do business with these partners for any reason, or if these partners are not successful in their sales efforts, sales of our products may decrease, and our business, financial condition, and results of operations would suffer.

In addition, we recognize a portion of our revenues at the time we sell products to our distributors. If these sales are made based on inaccurate or untimely information, the amount or timing of our revenues could be adversely impacted. Further, our distributors may increase orders during periods of product shortages, cancel orders if their inventory is too high, or delay orders in anticipation of new products. They also may adjust their orders in response to the supply of our products and the products of our competitors that are available to them, and in response to seasonal fluctuations in end-user demand.

We are also vulnerable to third parties who illegally distribute or sell counterfeit, stolen or unfit versions of our products, which has happened in the past and could happen in the future. Such sales could have a negative impact on our reputation and business.

Further, in order to develop and expand our distribution channel, we must continue to offer attractive channel programs to potential partners and scale and improve our processes and procedures that support the channel. As a result, our programs, processes and procedures may become increasingly complex and inherently difficult to manage. We have previously entered into OEM agreements with partners pursuant to which they rebrand and resell our products as part of their product portfolios. These types of relationships are complex and require additional processes and procedures that may be challenging and costly to implement, maintain and manage. Our failure to successfully manage and develop our distribution channel and the programs, processes and procedures that support it could adversely affect our ability to generate revenues from the sale of our products. We also depend on our global channel partners to comply with applicable legal and regulatory requirements. To the extent that they fail to do so, that could have a material adverse effect on our business, operating results, and financial condition.

Our ability to process orders and ship products in a timely manner is dependent in part on our business systems and performance of the systems and processes of third parties as well as the interfaces between our systems and the systems of such third parties. Dependence on outsourced information technology and other administrative functions may impair our ability to operate effectively.

Some of our business processes depend upon our IT systems, the systems and processes of third parties, and the interfaces between the two. For example, on December 31, 2018, we entered into a Master Services Agreement and certain Statements of Work with IBM pursuant to which we have outsourced significant portions of our IT and other administrative functions. These cloud providers, third party providers, and off-site facilities are vulnerable to damage, interruption, including performance problems from earthquakes, hurricanes, floods, fires, power loss, telecommunications failures, equipment failure, adverse events caused by operator error, cybersecurity attacks, pandemics (including the COVID-19 pandemic), and similar events. In addition, because we lease off-site data center facilities, we cannot be assured that we will be able to expand our data center infrastructure to meet user

demand in a timely manner, or on favorable economic terms. If we have issues receiving and processing data, this may delay our ability to provide products and services to our customers and business partners and damage our business. We also rely upon the performance of the systems and processes of our contract manufacturers to build and ship our products. If those systems and processes experience interruption or delay, our ability to build and ship our products in a timely manner may be harmed. Since IT is critical to our operations, any failure to perform on the part of our IT providers could impair our ability to operate effectively. In addition to the risks outlined above, problems with any of the third parties we rely on for our IT systems could result in liabilities to our customers and business partners, lower revenue and unexecuted efficiencies, and impact our results of operations and our stock price.

Integration of acquisitions could disrupt our business and harm our financial condition and stock price and may dilute the ownership of our stockholders.

We have made, and may continue to make, acquisitions in order to enhance our business. For example, we acquired Mist Systems in 2019, HTBase in 2018 and Cyphort in 2017. Acquisitions involve numerous risks, including, but not limited to, problems combining the purchased operations, technologies or products, unanticipated costs, liabilities, litigation, and diversion of management's attention from our core businesses, adverse effects on existing business relationships with suppliers and customers, risks associated with entering markets in which we have no or limited prior experience, and where competitors in such markets have stronger market positions, initial dependence on unfamiliar supply chains or relatively small supply partners, failure of our due diligence processes to identify significant problems, liabilities or other challenges of an acquired company or technology, and the potential loss of key employees, customers, distributors, vendors, and other business partners of the companies we acquire.

There can be no assurance that we will be able to integrate successfully any businesses, products, technologies, or personnel that we might acquire or that the transaction will advance our business strategy. The integration of businesses that we may acquire is likely to be a complex, time-consuming, and expensive process and we may not realize the anticipated revenues or other benefits associated with our acquisitions. If we fail to successfully manage, operate, or integrate any acquired business or if we are unable to efficiently operate as a combined organization, including through the use of common information and communication systems, operating procedures, financial controls, and human resources practices, we could be required to write-down investments and our business, financial condition, and results of operations may be adversely affected.

In connection with certain acquisitions, we may agree to issue common stock, or assume equity awards, that dilute the ownership of our current stockholders, use a substantial portion of our cash resources, assume liabilities (both known and unknown), record goodwill and amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets, and incur large and immediate write-offs and restructuring and other related expenses, all of which could harm our financial condition and results of operations.

We are a party to lawsuits, investigations, proceedings, and other disputes, which are costly to defend and, if determined adversely to us, could require us to pay fines or damages, undertake remedial measures or prevent us from taking certain actions, any or all of which could harm our business, results of operations, financial condition or cash flows.

We, and certain of our current and former officers and current and former members of our Board of Directors, have been and may become subject to various lawsuits. We have been served with lawsuits related to employment matters, commercial transactions and patent infringement, as well as securities laws. In addition, certain U.S. governmental agencies previously conducted investigations into possible violations by the Company of the U.S. Foreign Corrupt Practices Act, or the FCPA, which ultimately resulted in the Company entering into a settlement with the SEC that involved the Company making a payment of \$11.8 million in August 2019.

Generally, we cannot predict the duration, scope, outcome, or consequences of litigation and government investigations. In connection with any limitation or government investigations, we may agree to settle the matter, we may be required to pay damages and incur other remedies, which may be material, and we may suffer reputational harm. In addition, if we fail to comply with the terms of any settlement agreement, we could face more substantial penalties. The lawsuits and investigations are expensive and time-consuming to defend, settle, and/or resolve, and may require us to implement certain remedial measures that could prove costly or disruptive to our business and operations. The unfavorable resolution of one or more of these matters could have a material adverse effect on our business, results of operations, financial condition or cash flows.

We are a party to litigation and claims regarding intellectual property rights, resolution of which may be time-consuming and expensive, as well as require a significant amount of resources to prosecute, defend, or make our products non-infringing.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. We expect that infringement claims may increase as the number of products and competitors in our market increases and overlaps occur. Third parties have asserted and may in the future assert claims or initiate litigation related to patent, copyright, trademark, and other intellectual property rights to technologies and related standards that are relevant to our products. The asserted claims and/or initiated litigation may include claims against us or our manufacturers, suppliers, partners, or customers, alleging that our products or services infringe proprietary rights. In addition, increased patent litigation brought by non-practicing entities in recent years may result, and in some cases has resulted, in our customers requesting or requiring us to absorb a portion of the costs of such litigation or providing broader indemnification for litigation, each of which could increase our expenses and negatively affect our business, financial condition, and results of operations. Regardless of the merit of these claims, they have been and can be time-consuming, result in costly litigation, and may require us to develop non-infringing technologies, enter into license agreements, or cease engaging in certain activities or offering certain products or services. Furthermore, because of the potential for high awards of damages or injunctive relief that are not necessarily predictable, even arguably unmeritorious claims may be settled for significant amounts of money. If any infringement or other intellectual property claim made against us or anyone we are required to indemnify by any third-party is successful, if we are required to settle litigation for significant amounts of money, if we fail to develop non-infringing technology, if we incorporate infringing technology in our products, or if we license required proprietary rights at material expense

As we seek to sell more products directly to telecommunications, cable and cloud service provider companies and other large customers, we may be required to agree to non-standard terms and conditions that could have an adverse effect on our business or impact the amount of revenues to be recognized.

Telecommunications, cable and cloud service provider companies, which comprise a significant portion of our customer base, and other large companies, generally have greater purchasing power than smaller entities and, accordingly, often request and receive more favorable terms from suppliers. As we seek to sell more products directly to this class of customer, we may be required to agree to such terms and conditions, which may include terms that affect the timing of our ability to recognize revenue, increase our costs and have an adverse effect on our business, financial condition, and results of operations. Consolidation among such large customers can further increase their buying power and ability to require onerous terms.

In addition, these types of customers have purchased products from other vendors who promised but failed to deliver certain functionality and/or had products that caused problems or outages in the networks of these customers. As a result, these customers may request additional features from us and require substantial penalties for failure to deliver such features or may require substantial penalties for any network outages that may be caused by our products. These additional requests and penalties, if we are required to agree to them, may impact the amount of revenue recognition from such sales, which may negatively affect our business, financial condition and results of operations. In addition, increased patent litigation brought against customers in recent years, may result, and in some cases has resulted, in customers requesting or requiring vendors to absorb a portion of the costs of such litigation or providing broader indemnification for litigation, each of which could increase our expenses and negatively affect our business, financial condition, and results of operations.

Regulation of our industry in general and the telecommunications industry in particular could harm our operating results and future prospects.

We are subject to laws and regulations affecting the sale of our products in a number of areas. For example, some governments have regulations prohibiting government entities from purchasing security products that do not meet country-specific safety, conformance or security certification criteria or in-country test requirements. Other regulations that may negatively impact our business include local content or local manufacturing requirements most commonly applicable for government, state-owned enterprise or regulated industry procurements. These types of regulations are in effect or under consideration in several jurisdictions where we do business.

The Dodd-Frank Wall Street Reform and Consumer Protection Act includes disclosure requirements applicable to public companies regarding the use of "conflict minerals" mined from the Democratic Republic of Congo and adjoining countries, which we refer to collectively as the DRC, and procedures regarding a manufacturer's efforts to prevent the sourcing of such "conflict minerals." These minerals are present in our products. In addition, the European Union. or EU, reached agreement in late 2016 on an EU-wide conflict minerals rule under which most EU importers of tin, tungsten, tantalum, gold, and their ores will have to conduct due diligence to ensure the minerals do not originate from conflict zones and do not fund armed conflicts. Large manufacturers

also will have to disclose how they plan to monitor their sources to comply with the rules. The regulation was adopted in 2017 with compliance required by 2021.

In addition, environmental laws and regulations relevant to electronic equipment manufacturing or operations, including laws and regulations governing the hazardous material content of our products and laws relating to the collection of and recycling of electrical and electronic equipment, may adversely impact our business and financial condition. These laws and regulations include, among others, the EU, Restriction on the Use of Certain Hazardous Substances Directive, or RoHS. The EU RoHS and the similar laws of other jurisdictions limit the content of certain hazardous materials, such as lead, mercury, and cadmium, in electronic equipment, including our products. Currently, our products comply with the EU RoHS requirements. However, certain exemptions are scheduled to lapse. The lapse of any exemption, further changes to this or other laws, or passage of similar laws in the EU or other jurisdictions, would require us to cease selling non-compliant products and to reengineer our products to use components compatible with these regulations. This reengineering and component substitution could result in additional costs to us, disrupt our operations or logistics, and result in an adverse impact on our operating results. In addition, in validating the compliance of our products with applicable hazardous materials restrictions, we rely substantially on affirmations by our component suppliers as to the compliance of their products with respect to those same restrictions. Failure by our component suppliers to furnish accurate and timely information could subject us to penalties or liability for violation of such hazardous materials restrictions, interrupt our supply of products to the EU, and result in our customers refusing or being unable to purchase our products. Additionally, the EU and a number of other jurisdictions have adopted regulations requiring producers of electrical and electronic equipment to assume certain responsibilities for collecting, treating, recycling and disposing of products when they have re

In addition, as a contractor and subcontractor to U.S. government departments and agencies, we are subject to federal regulations pertaining to our IT systems. For instance, as a subcontractor to the U.S. Department of Defense, the Defense Federal Acquisition Regulation Supplement, or DFARS, required that our IT systems comply with the security and privacy controls described in National Institute of Standards and Technology Special Publication 800-171. The DFARS also requires that we flow the security control requirement down to certain of our own subcontractors. Failure to comply with these requirements could result in a loss of federal government business, subject us to claims or other remedies for non-compliance and negatively impact our business, financial condition, and results of operations.

The telecommunications industry is highly regulated, and our business and financial condition could be adversely affected by changes in regulations relating to the Internet telecommunications industry. Similarly, while there are currently few laws or regulations that apply directly to access to or commerce on IP networks, future regulations could include sales taxes on products sold via the Internet and Internet service provider access charges. We could be adversely affected by regulation of IP networks and commerce in any country where we market equipment and services to service providers or cloud provider companies. Regulations governing the range of services and business models that can be offered by service providers or cloud provider companies could adversely affect those customers' needs for products. For instance, in December 2017, the U.S. Federal Communications Commission repealed its 2015 regulations governing aspects of fixed broadband networks and wireless networks. This change in regulatory treatment of networks might impact service provider and cloud provider business models and their need for Internet telecommunications equipment and services. At the same time, several states have enacted their own laws and regulations governing certain aspects of fixed and wireless networks in the manner of the 2015 FCC regulations. These laws and regulations enacted by the states are or will be subject to legal challenges from the federal government and/or regulated providers. Also, many jurisdictions are evaluating or implementing regulations relating to cyber security, supply chain integrity, privacy and data protection, any of which can affect the market and requirements for networking and security equipment.

The adoption and implementation of additional regulations could reduce demand for our products, increase the cost of building and selling our products, result in product inventory write-offs, impact our ability to ship products into affected areas and recognize revenue in a timely manner, require us to spend significant time and expense to comply, and subject us to fines and civil or criminal sanctions or claims if we were to violate or become liable under such regulations. Any of these impacts could have a material adverse effect on our business, financial condition, and results of operations.

Governmental regulations and economic sanctions affecting the import or export of products generally or affecting products containing encryption capabilities, in particular, could negatively affect our revenues and operating results.

The United States and various foreign governments have imposed controls and restrictions on the export of, among other things, certain telecommunications products and components, particularly those that contain or use encryption technology. Most of our products contain or use encryption technology and, consequently, are subject to such controls, requirements and restrictions. Certain governments, like those of Russia and China, control importation and in-country use of encryption items and technology. The scope, nature, and severity of such controls vary widely across different countries and may change frequently over time.

For several years, U.S. government officials have had concerns with the security of products and services from certain telecommunications and video providers based in China. As a result, Congress has enacted bans on the use of certain Chinese-origin components or systems either in items sold to the U.S. government or in the internal networks of government contractors and subcontractors (even if those networks are not used for government-related projects). The U.S. government might also restrict or ban the use of certain Chinese-origin components and systems in next generation mobile communications networks (e.g. 5G).

In 2019, the U.S. Department of Commerce, or Commerce Department, proposed a rule that would subject to government review the acquisition or use of information and communication technology, goods and services from entities owned by, controlled by, or subject to the jurisdiction of a foreign adversary. The proposal would be retroactive and apply to transactions dating back to May 15, 2019. If implemented as proposed, the rule could subject acquisition of components, modules, other parts, and any services to lengthy government review processes. This would introduce significant uncertainty into our supply chain planning as we would not be certain which potential acquisitions the government would permit and which it would reject.

Increasingly, governments have begun using export and import controls not only to further national security objectives but also to protect local industries and restrict proliferation of locally developed "emerging or foundational technology." For example, in 2018 the U.S. enacted the Export Control Reform Act, which expands the power of the Commerce Department to use export controls to protect domestic industry and to restrict the export of emerging and foundational technologies not currently subject to controls. In furtherance of that law, on November 19, 2018, the Commerce Department sought public comment on how to define emerging technologies. Our ability to market and sell our products overseas may be impacted by such export controls, if and when they are imposed.

In addition, the U.S. and other governments have especially broad sanctions and embargoes prohibiting provision of goods or services to certain countries, and territories, and to certain sanctioned governments, legal entities and individuals. Some of these restrictions have been imposed not just to protect national security but also to protect domestic industries and to achieve political aims. For instance, the Commerce Department in 2018 added to its Entity List, a Chinese semiconductor manufacturer on the express basis that it threatens the viability of U.S. competitors; the Entity List traditionally is used to restrict exports to end users that pose a security risk. Particularly far reaching and complex are restrictions imposed by the U.S. and EU on exports to Russia and, in particular, to the disputed region of Crimea. We have implemented systems to detect and prevent sales into these restricted countries or to prohibited entities or individuals, but there can be no assurance that our third party, downstream resellers and distributors will abide by these restrictions or have processes in place to ensure compliance, especially where local government regulation might prohibit adherence to such restrictions.

Certain governments also impose special local content, certification, testing, source code review, escrow and governmental recovery of private encryption keys, or other cybersecurity feature requirements to protect network equipment and software procured by or for the government. Similar requirements also may be imposed in procurements by state owned entities ("SOEs") or even private companies forming part of "critical network infrastructure" or supporting sensitive industries. For example, China, Vietnam and India have promulgated cybersecurity regulations affecting networking products that may impair our ability to profitably market and sell our products there. China, in particular, is expected to require implementation of non-standard Chinese encryption algorithms in products sold into certain government, SOE, critical infrastructure, and sensitive industry (such as financial institutions) markets.

In addition, governments sometimes impose additional taxes on certain imported products. For example, the United States and Chinese governments each have imposed tariffs on certain products originating from the other country. In 2018, the United States imposed tariffs on a large variety of products of China origin, and beginning on September 24, 2018, a large portion of Juniper products manufactured in China became subject to a 10% tariff on importation into the U.S. pursuant to the U.S. government's List 3 tariff proceeding, which increased to 25% on May 10, 2019. In August 2019, the U.S. President announced that he would impose a 15% tariff on all remaining Chinese imports (List 4 imports) effective September 1, 2019 and several of our products became subject to such tariff. Pursuant to a U.S.-China trade deal signed in mid-January 2020, the List 3 rate will remain at 25% and the List 4 rate will decrease to 7.5% on February 14, 2020.

Depending upon their duration and implementation, as well as our ability to mitigate their impact, these tariffs could materially affect our business, including in the form of increased cost of goods sold, increased pricing for customers, and reduced sales.

Governmental regulation of encryption or IP networking technology and regulation of imports or exports, or our failure to obtain required import or export approval for our products, or related economic sanctions could harm our international and domestic sales and adversely affect our revenues and operating results. In addition, failure to comply with such regulations could result in harm

to our reputation and ability to compete in international markets, penalties, costs, seizure of assets (including source code) and restrictions on import or export privileges or adversely affect sales to government agencies or government-funded projects.

Our actual or perceived failure to adequately protect personal data could adversely affect our business, financial condition, and results of operations.

A wide variety of provincial, state, national, foreign, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer, and other processing of personal data. These privacy- and data protection-related laws and regulations are evolving, with new or modified laws and regulations proposed and implemented frequently and existing laws and regulations subject to new or different interpretations. Further, our legal and regulatory obligations in foreign jurisdictions are subject to unexpected changes, including the potential for regulatory or other governmental entities to enact new or additional laws or regulations, to issues rulings that invalidate prior laws or regulations, or to increase penalties significantly. Compliance with these laws and regulations can be costly and can delay or impede the development and offering of new products and services.

For example, the General Data Protection Regulation, which became effective in May 2018, imposes more stringent data protection requirements, and provides for significantly greater penalties for noncompliance, than the EU laws that previously applied. Additionally, California recently enacted legislation, the California Consumer Privacy Act ("CCPA"), which became effective January 1, 2020. The CCPA requires, among other things, covered companies to provide new disclosures to California consumers, and allow such consumers new abilities to opt-out of certain sales of personal information. Final regulations by the California Attorney General are expected to be published later this year.

It remains unclear the extent or timing of any modifications that will be made to the CCPA, or how such modifications will be interpreted. The effects of the CCPA potentially are significant and may require us to modify our data processing practices and policies and to incur substantial costs and expenses in an effort to comply. We may also be subject to additional obligations relating to personal data by contract that industry standards apply to our practices. Further, other states have also expanded their data protection laws. Additionally, the Federal Trade Commission and many state attorneys general are interpreting federal and state consumer protection laws to impose standards for the online collection, use, dissemination, and security of data. In addition, we may be or become subject to data localization laws mandating that data collected in a foreign country be processed and stored within that country.

Our actual or perceived failure to comply with applicable laws and regulations or other obligations to which we may be subject relating to personal data, or to protect personal data from unauthorized access, use, or other processing, could result in enforcement actions and regulatory investigations against us, claims for damages by customers and other affected individuals, fines, damage to our reputation, and loss of goodwill, any of which could have a material adverse effect on our operations, financial performance, and business. Further, evolving and changing definitions of personal data and personal information, within the EU, the U.S., U.K., and elsewhere, including the classification of IP addresses, machine identification information, location data, and other information, may limit or inhibit our ability to operate or expand our business, including limiting business relationships and partnerships that may involve the sharing or uses of data, and may require significant costs, resources, and efforts in order to comply.

Our ability to develop, market, and sell products could be harmed if we are unable to retain or hire key personnel or if our existing personnel were harmed by COVID-19.

Our future success and ability to maintain a technology leadership position depends upon our ability to recruit and retain the services of executive, engineering, sales and marketing, and support personnel as well as the health of our personnel during a pandemic, including the COVID-19 pandemic. The supply of highly qualified individuals with technological and creative skills, in particular, engineers in very specialized technical areas who have the expertise necessary to develop new products and develop enhancements for our current products, and provide reliable product maintenance, or sales people with specialized industry expertise, is limited and competition for such individuals is intense. None of our officers or key employees is bound by an employment agreement for any specific term. The loss of the services of any of our key employees, especially due to COVID-19, the inability to attract or retain personnel in the future or delays in hiring required personnel, engineers and sales people, and the complexity and time involved in replacing or training new employees, could delay the development and introduction of new products, and negatively impact our ability to market, sell, or support our products. There can be no assurance that others will not develop technologies that are similar or superior to our technology, or that we will not lose the services of employees due to COVID-19.

A number of our team members are foreign nationals who rely on visas and entry permits in order to legally work in the United States and other countries. In recent years, the United States has increased the level of scrutiny in granting H-1(B), L-1 and other business visas. In addition, the current U.S. administration has made immigration reform a priority. Compliance with United States

immigration and labor laws could require us to incur additional unexpected labor costs and expenses or could restrain our ability to retain skilled professionals. Additionally, pandemics such as the COVID-19 pandemic, may interfere with our ability to hire or retain personnel. For example, in response to the COVID-19 pandemic, the United States has recently suspended entry of foreign nationals who have recently been in China, the UK, and numerous countries within the European Union into the United States, which could impact our ability to attract, develop, integrate and retain highly skilled employees with appropriate qualifications from other countries. In addition, on April 22, 2020, the U.S. President signed an executive order to pause the issuance of green cards for 60 days, describing it as an effort to protect Americans from competition from foreign workers during the COVID-19 pandemic.

Any of these restrictions could have a material adverse effect on our business, results of operations and financial conditions.

Our financial condition and results of operations could suffer if there is an impairment of goodwill or purchased intangible assets.

As of March 31, 2020, our goodwill was \$3,337.1 million, and our purchased intangible assets were \$170.7 million. We are required to test intangible assets with indefinite lives, including goodwill, annually or more frequently if certain circumstances change that would more likely than not reduce the fair value of a reporting unit and intangible assets below their carrying values. When the carrying value of a reporting unit's goodwill exceeds its implied fair value of goodwill, or whenever events or changes in circumstances indicate that the carrying amount of an intangible asset might not be recoverable, a charge to operations is recorded. Either event would result in incremental expenses for that quarter, which would reduce any earnings or increase any loss for the period in which the impairment was determined to have occurred. We have in the past recorded goodwill impairment charges. Declines in our level of revenues or declines in our operating margins, or sustained declines in our stock price, increase the risk that goodwill and intangible assets with indefinite lives may become impaired in future periods.

Our goodwill impairment analysis is sensitive to changes in key assumptions used in our analysis, such as expected future cash flows, the degree of volatility in equity and debt markets, and our stock price. If the assumptions used in our analysis are not realized, it is possible that an impairment charge may need to be recorded in the future. We cannot accurately predict the amount and timing of any impairment of goodwill or other intangible assets. However, any such impairment would have an adverse effect on our results of operations.

Changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our results.

Our future effective tax rates could be subject to volatility or adversely affected by the following: earnings being lower than anticipated in countries where we have lower statutory rates and higher than anticipated earnings in countries where we have higher statutory rates; changes in the valuation of our deferred tax assets and liabilities; expiration of, or lapses in, the R&D tax credit laws applicable to us; transfer pricing adjustments related to certain acquisitions, including the license of acquired intangibles under our intercompany R&D cost sharing arrangement; costs related to intercompany restructuring; tax effects of share-based compensation; challenges to our methodologies for valuing developed technology or intercompany arrangements; limitations on the deductibility of net interest expense; or changes in tax laws, regulations, accounting principles, or interpretations thereof. For example, on November 12, 2019, in Altera Corp. v. Commissioner, the Ninth Circuit Court of Appeals denied Altera Corporation's petition for rehearing en banc of its case, following the Ninth Circuit's decision against Altera issued on June 7, 2019 (the "2019 Opinion"). The 2019 Opinion required related parties in an intercompany cost-sharing arrangement to share expenses related to share-based compensation. Altera appealed this decision to the U.S. Supreme Court on February 10, 2020. Pending final resolution of the Altera case, the Company's position on cost-sharing of share-based compensation remains unchanged. If the final judicial decision is not in favor of Altera, we expect our effective tax rate and current income tax payable to be higher. We are monitoring this case and any impact the final resolution may have on our financial statements. In addition, the Tax Act made significant changes to the taxation of U.S. business entities that may have a meaningful impact to our provision for income taxes. These changes included a reduction to the federal corporate income tax rate, the current taxation of certain foreign earnings, the imposition of base-erosion prevention measures which may limit the deduction of certain transfer pricing payments, and possible limitations on the deductibility of net interest expense or corporate debt obligations. Accounting for the income tax effects of the Tax Act required significant judgments and estimates that are based on current interpretations of the Tax Act. The U.S. Department of the Treasury continues to issue regulations that affect various components of the Act. Our future effective tax rate may be impacted by changes in interpretation of the regulations, as well as additional legislation and guidance regarding the Act.

Furthermore, on October 5, 2015, the Organisation for Economic Co-operation and Development, an international association of 35 countries including the U.S., published final proposals under its Base Erosion and Profit Shifting, or BEPS, Action Plan. The BEPS Action Plan includes fifteen Actions to address BEPS in a comprehensive manner and represents a significant change to the

international corporate tax landscape. These proposals, as adopted by countries, may increase tax uncertainty and adversely affect our provision for income taxes. In addition, we are generally subject to the continuous examination of our income tax returns by the Internal Revenue Service, and other tax authorities. It is possible that tax authorities may disagree with certain positions we have taken and any adverse outcome of such a review or audit could have a negative effect on our financial position and operating results. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes, but the determination of our worldwide provision for income taxes and other tax liabilities requires significant judgment by management, and there are transactions where the ultimate tax determination is uncertain. Although we believe that our estimates are reasonable, the ultimate tax outcome may differ from the amounts recorded in our consolidated financial statements and may materially affect our financial results in the period or periods for which such determination is made. There can be no assurance that the outcomes from continuous examinations will not have an adverse effect on our business, financial condition, and results of operations.

We may face difficulties enforcing our proprietary rights, which could adversely affect our ability to compete.

We generally rely on a combination of patents, copyrights, trademarks, and trade secret laws and contractual restrictions on disclosure of confidential and proprietary information, to establish and maintain proprietary rights in our technology and products. Although we have been issued numerous patents and other patent applications are currently pending, there can be no assurance that any of our patent applications will result in issued patents or that any of our patents or other proprietary rights will not be challenged, invalidated, infringed or circumvented or that our rights will, in fact, provide competitive advantages to us or protect our technology, any of which could result in costly product redesign efforts, discontinuance of certain product offerings and other competitive harm.

In addition, despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or obtain and use information that we regard as proprietary. We generally enter into confidentiality or license agreements with our employees, consultants, vendors, and customers, and generally limit access to and distribution of our proprietary information. However, we cannot assure you that we have entered into such agreements with all parties who may have or have had access to our confidential information or that the agreements we have entered into will not be breached. We cannot guarantee that any of the measures we have taken will prevent misappropriation of our technology.

Furthermore, the laws of some foreign countries may not protect our proprietary rights to the same extent as do the laws of the United States. The outcome of any actions taken in these foreign countries may be different than if such actions were determined under the laws of the United States. Although we are not dependent on any individual patents or group of patents for particular segments of the business for which we compete, if we are unable to protect our proprietary rights in a market, we may find ourselves at a competitive disadvantage to others who need not incur the substantial expense, time, and effort required to create innovative products that have enabled our success.

We are subject to risks arising from our international operations, which may adversely affect our business, financial condition, and results of operations.

We derive a substantial portion of our revenues from our international operations, and we plan to continue expanding our business in international markets. We conduct significant sales and customer support operations directly and indirectly through our distributors and value-added resellers in countries throughout the world and depend on the operations of our contract manufacturers and suppliers that are located outside of the United States. In addition, a portion of our R&D and our general and administrative operations are conducted outside the United States. In some countries, we may experience reduced intellectual property protection.

As a result of our international operations, we are affected by economic, business regulatory, social, and political conditions in foreign countries, including the following:

- · changes in general IT spending;
- the impact of the recent COVID-19 pandemic, and any other adverse public health developments, epidemic disease or other pandemic in the countries in which we operate or our customers are located, including regional quarantines restricting the movement of people or goods, reductions in labor supply or staffing, the closure of manufacturing facilities to protect employees, disruptions to global supply chains and suppliers ability to deliver materials on a timely basis, the resulting overall significant volatility and disruption of financial markets, and economic instability affecting customer spending patterns;
- the imposition of government controls, inclusive of critical infrastructure protection;

- changes in trade controls, economic sanctions, or other international trade regulations, which may affect our ability to import or export our products to
 or from various countries:
- laws that restrict sales of products that are developed, manufactured, or incorporate components or assemblies from certain countries to specific customers (e.g., U.S. federal government departments and agencies) and industry segments, or for particular uses or more generally;
- · varying and potentially conflicting laws and regulations;
- political uncertainty, including demonstrations, that could have an impact on product delivery from and into the China region;
- · fluctuations in local economies;
- wage inflation or a tightening of the labor market;
- tax policies that could have a business impact;
- import tariffs imposed by the United States and reciprocal tariffs imposed by foreign countries;
- data privacy rules and other regulations that affect cross border data flow; and
- the impact of the following on customer spending patterns: political considerations, unfavorable changes in tax treaties or laws, natural disasters, labor unrest, labor shortages or stoppages, earnings expatriation restrictions, misappropriation of intellectual property, military actions, acts of terrorism, political and social unrest and difficulties in staffing and managing international operations.

Any or all of these factors has or could have an adverse impact on our business, financial condition, and results of operations.

In addition, the U.K.'s formal exit from the EU on January 31, 2020, commonly referred to as Brexit, has caused, and may continue to cause, uncertainty in the global markets. The U.K. is expected to enter a transition period until December 31, 2020 permitting negotiation of a free trade deal between the US and U.K. The consequences for the economies of the U.K. and EU member states as a result of the U.K.'s withdrawal from the EU remain unknown and unpredictable. Any impact from Brexit on the Company will depend, in part, on the outcome of tariff, trade and other negotiations. For example, changes to the way service providers conduct business and transmit data between the U.K. and the EU could require us to make changes to the way we handle customer data. We are also reviewing the impact of any resulting changes to EU or U.K. law that could affect our operations, such as labor policies, financial planning, product manufacturing, and product distribution. Political and regulatory responses to the withdrawal are still developing and we are in the process of assessing the impact the withdrawal may have on our business as more information becomes available, including, but not limited to changes to U.K. immigration policy that may affect our ability to attract and retain talent in EMEA. Nevertheless, because we conduct business in the EU and the U.K., any of the effects of Brexit, including those we cannot anticipate, could have a material adverse effect on our business, business opportunities, operating results, financial condition and cash flows. The lack of certainty given the pending EU-U.K. negotiations creates the risk that, notwithstanding that we have devoted significant resources to preparing for the impact of Brexit, we may not be adequately prepared for an unforeseen outcome.

Our business is also impacted by the negotiation and implementation of free trade agreements between the United States and other nations. Such agreements can reduce barriers to international trade and thus the cost of conducting business overseas. For instance, the United States reached a new trilateral trade agreement with the Governments of Canada and Mexico to replace the North American Free Trade Agreement (NAFTA). All the three nations have ratified the agreement, but must meet certain obligations before the agreement takes effect.

Many of the products that we have manufactured in China are transported by air cargo from Hong Kong. Hong Kong has experienced political demonstrations that previously resulted in cancellations or delays in flights in and out of China. These demonstrations have become more limited during the COVID-19 pandemic. If these demonstrations resume, we could experience delays in product deliveries from China or be required to change our shipping practices, which could adversely impact our business.

Further, the spread of COVID-19 has and is likely to continue to affect the manufacturing and shipment of goods globally. For example, during the first quarter of fiscal 2020, the COVID-19 pandemic resulted in us experiencing supply constraints due to both constrained manufacturing capacity, particularly in China and Malaysia, as well as component parts shortages as our component vendors were also facing manufacturing challenges. These challenges resulted in extended lead-times to our customers and had a negative impact on our ability to recognize additional revenue in the first quarter. By way of further example, while the Chinese government has recently lifted certain restrictions on movement of people and goods to limit the spread of COVID-19, it is continuing to take control measures that may include the reimposing such restrictions. Further, most other countries have imposed or are imposing certain restrictions on the movement of people and goods and may continue to lift and reimpose such restrictions as needed. Any delay in production or delivery of our products or components made by our suppliers due to an extended closure of our supplier's plants as a result of efforts to limit the spread of COVID-19 in China, India, Malaysia, and Mexico, or other countries where our suppliers operate could adversely impact our business. In addition, many airlines have canceled flights to and from China, affecting the ability to obtain components needed for manufacturing elsewhere. Worldwide travel restrictions have been imposed by many countries, including air travel and transport, that have caused and are likely to continue to cause delays in shipment of our products and will restrict our ability to attract, develop, integrate and retain highly skilled employees with appropriate qualifications from other countries.

Moreover, local laws and customs in many countries differ significantly from or conflict with those in the United States or in other countries in which we operate. In many foreign countries, it is common for others to engage in business practices that are prohibited by our internal policies and procedures or U.S. regulations applicable to us. There can be no assurance that our employees, contractors, channel partners, and agents will not take actions in violation of our policies and procedures, which are designed to ensure compliance with U.S. and foreign laws and policies. Violations of laws or key control policies by our employees, contractors, channel partners, or agents could result in termination of our relationship, financial reporting problems, fines, and/or penalties for us, or prohibition on the importation or exportation of our products, and could have a material adverse effect on our business, financial condition and results of operations. In addition, any theft or unauthorized use or publication of our intellectual property and other confidential business information could harm our competitive position.

Our products are highly technical and if they contain undetected defects, errors or malware or do not meet customer quality expectations, our business could be adversely affected, and we may be subject to additional costs or lawsuits or be required to pay damages in connection with any alleged or actual failure of our products and services.

Our products are highly technical and complex, are critical to the operation of many networks, and, in the case of our security products, provide and monitor network security and may protect valuable information. Our products have contained and may contain one or more undetected errors, defects, malware, or security vulnerabilities. These errors may arise from hardware or software we produce or procure from third parties. Some errors in our products may only be discovered after a product has been installed and used by end-customers.

Any errors, defects, malware, or security vulnerabilities discovered in our products after commercial release could result in monetary penalties, negative publicity, loss of revenues or delay in revenue recognition, loss of customers, loss of future business and reputation, penalties, and increased service and warranty cost, any of which could adversely affect our business, financial condition, and results of operations. In addition, in the event an error, defect, malware, or vulnerability is attributable to a component supplied by a third-party vendor, we may not be able to recover from the vendor all of the costs of remediation that we may incur. In addition, we could face claims for product liability, tort, or breach of warranty or indemnification. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention. If our business liability insurance coverage is inadequate, or future coverage is unavailable on acceptable terms or at all, our financial condition and results of operations could be harmed. Moreover, if our products fail to satisfy our customers' quality expectations for whatever reason, the perception of and the demand for our products could be adversely affected.

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

Because a substantial portion of our business is conducted outside the United States, we face exposure to adverse movements in non-U.S. currency exchange rates. These exposures may change over time as business practices evolve and could have a material adverse impact on our financial condition and results of operations.

The majority of our revenues and expenses are transacted in U.S. Dollars. We also have some transactions that are denominated in foreign currencies, primarily the British Pound, Chinese Yuan, Euro, and Indian Rupee related to our sales and service operations outside of the United States. An increase in the value of the U.S. Dollar could increase the real cost to our customers of our products in those markets outside the United States in which we sell in U.S. Dollars. This could negatively affect our ability to meet our

customers' pricing expectations in those markets and may result in erosion of gross margin and market share. A weakened U.S. Dollar could increase the cost of local operating expenses and procurement of raw materials to the extent we must purchase components in foreign currencies.

Currently, we hedge currency exposures associated with certain assets and liabilities denominated in nonfunctional currencies and periodically hedge anticipated foreign currency cash flows, with the aim of offsetting the impact of currency fluctuations on these exposures. However, hedge activities can be costly, and hedging cannot fully offset all risks, including long-term declines or appreciation in the value of the U.S. Dollar. If our attempts to hedge against these risks are not successful, or if long-term declines or appreciation in the value of the U.S. Dollar persist, our financial condition and results of operations could be adversely impacted.

If we fail to adequately evolve our financial and managerial control and reporting systems and processes, our ability to manage and grow our business will be negatively affected.

Our ability to successfully offer our products and implement our business plan in a rapidly evolving market requires an effective planning, forecasting, and management process to enable us to effectively scale and adjust our business and business models in response to fluctuating market opportunities and conditions. We will need to continue to improve our financial and managerial control and our reporting systems and procedures in order to manage our business effectively in the future. If we fail to effectively improve our systems and processes or we fail to monitor and ensure that these systems and processes are being used correctly, our ability to manage our business, financial condition, and results of operations may be negatively affected.

If our products do not interoperate with our customers' networks, installations will be delayed or cancelled and could harm our business.

Our products are designed to interface with our customers' existing networks, each of which have different specifications and utilize multiple protocol standards and products from other vendors. Many of our customers' networks contain multiple generations of products that have been added over time as these networks have grown and evolved. Our products must interoperate with many or all of the products within these networks as well as future products in order to meet our customers' requirements. If we find errors in the existing software or defects in the hardware used in our customers' networks, we may need to modify our software or hardware to fix or overcome these errors so that our products will interoperate and scale with the existing software and hardware, which could be costly and could negatively affect our business, financial condition, and results of operations. In addition, if our products do not interoperate with those of our customers' networks, demand for our products could be adversely affected or orders for our products could be cancelled. This could hurt our operating results, damage our reputation, and seriously harm our business and prospects.

Our products incorporate and rely upon licensed third-party technology, and if licenses of third-party technology do not continue to be available to us or are not available on terms acceptable to us, our revenues and ability to develop and introduce new products could be adversely affected.

We integrate licensed third-party technology into certain of our products. From time to time, we may be required to renegotiate our current third-party licenses or license additional technology from third-parties to develop new products or product enhancements or to facilitate new business models. Third-party licenses may not be available or continue to be available to us on commercially reasonable terms. The failure to comply with the terms of any license, including free open source software, may result in our inability to continue to use such license. Some of our agreements with our licensors may be terminated for convenience by them. In addition, we cannot be certain that our licensors are not infringing the intellectual property rights of third parties or that our licensors have sufficient rights to the licensed intellectual property in all jurisdictions in which we may sell our products. Third- party technology we incorporate into our products that is deemed to infringe on the intellectual property of others may result, and in some cases has resulted, in limitations on our ability to source technology from those third parties, restrictions on our ability to sell products that incorporate the infringing technology, increased exposure to liability that we will be held responsible for incorporating the infringing technology in our products and increased costs involved in removing that technology from our products or developing substitute technology. Our inability to maintain or re-license any third-party licenses required in our products or our inability to obtain third-party licenses necessary to develop new products and product enhancements, could require us, if possible, to develop substitute technology or obtain substitute technology of lower quality or performance standards or at a greater cost, any of which could delay or prevent product shipment and harm our business, financial condition, and results of operations.

We rely on the availability and performance of information technology services provided by third parties, including IBM, which manages a significant portion of our systems.

Under the terms of our Master Services Agreement and certain Statements of Work, IBM provides us with a broad range of information technology services, such as applications, including support, development and maintenance; infrastructure management and support, including for servers storage and network devices; and end user support including service desk. Our businesses are dependent on the services provided and systems operated for us by IBM and its third-party providers. The failure of one or more of these entities to meet our performance standards and expectations, including with respect to data security, may have a material adverse effect on our business, results of operations or financial condition.

Our success is dependent on our ability to maintain effective relationships with IBM and other third-party technology and service providers as well as the ability of IBM and any other third-party providers to perform as expected. We may terminate our agreement with IBM and any and all Statements of Work at any time on short notice for cause, convenience, certain specific performance failures, a breach of warranties by IBM, failure to transform, changes in law, force majeure, or a change in the control of either IBM or us. Depending on the type and timing of a termination, we may be required to pay certain termination amounts to IBM. IBM's only right to terminate the Master Services Agreement is based on our failure to comply with certain terms applying to disputed payments.

This arrangement is subject to various risks, some of which are not within our control. These risks include, but are not limited to, disruption in services and the failure to protect the security and integrity of our data under the terms of the agreement. We are unable to provide assurances that some or all of these risks will not occur. Failure to effectively mitigate these risks, if they occur, could have a material adverse effect on our operations and financial results. In addition, we could face significant additional costs or business disruption if our arrangement with IBM is terminated or impaired and we cannot find alternative IT services or support on commercially reasonable terms or on a timely basis or if we are unable to hire new employees in order to return these services in-house.

We are required to evaluate the effectiveness of our internal control over financial reporting and publicly disclose material weaknesses in our controls. Any adverse results from such evaluation may adversely affect investor perception, and our stock price.

Section 404 of the Sarbanes-Oxley Act of 2002 requires our management to assess the effectiveness of our internal control over financial reporting and to disclose in our filing if such controls were unable to provide assurance that a material error would be prevented or detected in a timely manner. We have an ongoing program to review the design of our internal controls framework in keeping with changes in business needs, implement necessary changes to our controls design and test the system and process controls necessary to comply with these requirements. If in the future, our internal controls over financial reporting are determined to be not effective resulting in a material weakness or significant deficiency, investor perceptions regarding the reliability of our financial statements may be adversely affected which could cause a decline in the market price of our stock and otherwise negatively affect our liquidity and financial condition.

Failure to maintain our credit ratings could adversely affect our cost of funds and related margins, liquidity, competitive position and access to capital markets.

The major credit rating agencies routinely evaluate our indebtedness. This evaluation is based on a number of factors, which include financial strength as well as transparency with rating agencies and timeliness of financial reporting. There can be no assurance that we will be able to maintain our credit ratings and failure to do so could adversely affect our cost of funds and related margins, liquidity, competitive position and access to capital markets.

We may be unable to generate sufficient cash flow to satisfy our expenses, make anticipated capital expenditures or service our debt obligations, including the Notes and the Revolving Credit Facility.

As of March 31, 2020, we had \$1,700.0 million in aggregate principal amount of senior notes, which we refer to collectively as the Notes. In April 2019, we entered into a new credit agreement with certain institutional lenders that provides for a five-year \$500.0 million unsecured revolving credit facility, which we refer to as the Revolving Credit Facility, with an option to increase the Revolving Credit Facility by up to an additional \$200.0 million, subject to the lenders' approval. The credit agreement will terminate in April 2024, at which point all amounts borrowed must be repaid (subject to a one-year maturity extension option). As of March 31, 2020, no amounts were outstanding under the Revolving Credit Facility.

We may not be able to generate sufficient cash flow to enable us to satisfy our expenses, make anticipated capital expenditures or service our indebtedness, including the Notes and the Revolving Credit Facility (if drawn upon). Our ability to pay our expenses, satisfy our debt obligations, refinance our debt obligations and fund planned capital expenditures will depend on our future performance, which will be affected by general economic, financial, competitive, legislative, regulatory and other factors beyond our control. Based upon current levels of operations, we believe cash flow from operations and available cash will be adequate for at least the next twelve months to meet our anticipated requirements for working capital, capital expenditures and scheduled payments of principal and interest on our indebtedness, including the Notes and the Revolving Credit Facility (if drawn upon). However, if we are unable to generate sufficient cash flow from operations or to borrow sufficient funds in the future to service our debt, we may be required to sell assets, reduce capital expenditures, refinance all or a portion of our existing debt (including the Notes) or obtain additional financing. There is no assurance that we will be able to refinance our debt, sell assets or borrow more money on terms acceptable to us, or at all.

The indenture that governs the Notes contain various covenants that limit our ability and the ability of our subsidiaries to, among other things:

- incur liens:
- · incur sale and leaseback transactions; and
- consolidate or merge with or into, or sell substantially all of our assets to, another person.

The Credit Agreement contains two financial covenants along with customary affirmative and negative covenants that include the following:

- maintenance of a leverage ratio no greater than 3.0x (provided that if a material acquisition has been consummated, we are permitted to maintain a leverage ratio no greater than 3.5x for up to four quarters) and an interest coverage ratio no less than 3.0x
- covenants that limit or restrict the ability of the Company and its subsidiaries to, among other things, grant liens, merge or consolidate, dispose of all or substantially all of its assets, change their accounting or reporting policies, change their business and incur subsidiary indebtedness, in each case subject to customary exceptions for a credit facility of this size and type.

As a result of these covenants, we are limited in the manner in which we can conduct our business, and we may be unable to engage in favorable business activities or finance future operations or capital needs. Accordingly, these restrictions may limit our ability to successfully operate our business. A failure to comply with these restrictions could lead to an event of default, which could result in an acceleration of the indebtedness, which could result in an event of default under our other debt instruments. Our future operating results may not be sufficient to enable compliance with these covenants to remedy any such default. In addition, in the event of an acceleration, we may not have or be able to obtain sufficient funds to make any accelerated payments, including those under the Notes, and the Revolving Credit Facility (if drawn upon).

In addition, under applicable U.S. tax laws and regulations, there are limitations on the deductibility of net business interest expenses. As a result, if our taxable income were to decline, we may not be able to fully deduct our net interest expense, which could have a material impact on our business.

A portion of the transaction consideration we received from the divestiture of our Junos Pulse product portfolio is in the form of a non-contingent seller promissory note and we may not receive the amount owed to us (including accrued interest), including in the time frame contemplated, by the buyer under the note.

In the fourth quarter of fiscal 2014, we completed the sale of our Junos Pulse product portfolio to an affiliate of Siris Capital, a private equity firm, for total consideration of \$230.7 million, of which \$125.0 million was in the form of an 18-month non-contingent interest-bearing promissory note issued to the Company. On May 1, 2017, we received a principal payment in the amount of \$75.0 million and outstanding interest on the note, and we and the issuer agreed to further amend the terms of the note with respect to the remaining approximately \$58.0 million to, among other things, extend the maturity date from December 31, 2018 to September 30, 2022, provided that interest due can be paid in kind by increasing the outstanding principal amount of the note and subordinate the note to other debt issued by senior lenders. Since a portion of the transaction consideration is in the form of a non-contingent seller promissory note and the note is subordinated to debt issued by senior lenders, there is the risk that we may not receive the amount owed to us (including accrued interest), including in the time frame contemplated, under the note. In

the event that the promissory note is not repaid on the terms we contemplate, any collection or restructuring efforts we undertake may be costly and require significant time and attention from our management and there is no guarantee that we will be able to recover the amounts owed to us in full.

Our failure to pay quarterly dividends to our stockholders or the failure to meet our commitments to return capital to our stockholders could have a material adverse effect on our stock price.

Our ability to pay quarterly dividends or achieve our intended capital return policy will be subject to, among other things, our financial position and results of operations, available cash and cash flow, capital and debt service requirements, use of cash for acquisitions and other factors. Any failure to pay or increase future dividends as announced, or a reduction or discontinuation of quarterly dividends could have a material adverse effect on our stock price.

In January 2018, our Board of Directors approved a new \$2.0 billion share purchase program, which replaced our prior authorization and in October 2019, the Board authorized the repurchase of up to an additional \$1.0 billion of common stock under the 2018 Stock Repurchase Program. Any failure to meet our commitments to return capital to our stockholders could have a material adverse effect on our stock price.

The investment of our cash balance and our investments in government and corporate debt securities and equity securities are subject to risks, which may cause losses and affect the liquidity of these investments.

At March 31, 2020, we had \$1,398.6 million in cash and cash equivalents and \$1,131.3 million in short-and long-term investments. We have invested these amounts primarily in asset-backed securities, certificates of deposit, commercial paper, corporate debt securities, foreign government debt securities, money market funds, mutual funds, time deposits, U.S. government agency securities, and U.S. government securities. We also have \$191.5 million in other long-term assets for our investments in privately-held companies. Certain of our investments are subject to general credit, liquidity, market, sovereign debt, and interest rate risks. Our future investment income may fall short of expectations due to changes in interest rates or if the decline in fair value related to creditworthiness of our publicly traded debt investments is judged to be material. In addition, should financial market conditions worsen in the future, including from impacts of the COVID-19 pandemic, investments in some financial instruments may pose risks arising from market liquidity and credit concerns. These market risks associated with our investment portfolio may have a material adverse effect on our liquidity, financial condition, and results of operations.

Changes in the method of determining the London Interbank Offered Rate, or LIBOR, or the replacement of LIBOR with an alternative reference rate, may adversely affect our financial condition and results of operations.

Certain of our financial obligations and instruments, including our credit facility, Pulse note, supplier finance programs, and floating rate notes that we have invested in, as well as interest rate swaps that we use as fair value hedges of our fixed-rate 2041 Notes, are or may be made at variable interest rates that use LIBOR (or metrics derived from or related to LIBOR) as a benchmark for establishing the interest rate. On July 27, 2017, the United Kingdom's Financial Conduct Authority announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. These reforms may cause LIBOR to perform differently than in the past or to disappear entirely. There is currently no global consensus on what rate or rates will become acceptable alternatives. In the United States, the U.S. Federal Reserve Board-led industry group, the Alternative Reference Rates Committee, selected the Secured Overnight Financing Rate ("SOFR") as an alternative to LIBOR for U.S. dollar-denominated LIBOR-benchmarked obligations. SOFR is a broad measure of the cost of borrowing cash in the overnight U.S treasury repo market, and the Federal Reserve Bank of New York has published the daily rate since 2018. Nevertheless, because SOFR is a fully secured overnight rate and LIBOR is a forward-looking unsecured rate, SOFR is likely to be lower than LIBOR on most dates, and any spread adjustment applied by market participants to alleviate any mismatch during a transition period will be subject to methodology that remains undefined. The potential consequences of these actions cannot be fully predicted and could have an adverse impact on the market value for or value of LIBOR-linked securities, loans, and other financial obligations or extensions of credit held by or due to us. Changes in market interest rates may influence our financing costs, returns on financial investments and the valuation of derivative contracts and could reduce our earnings and cash flows. In addition, any transition process may involve, among other things, increased volatility or illiquidity in markets for instruments that rely on LIBOR, reductions in the value of certain instruments or the effectiveness of related transactions such as hedges, increased borrowing costs, uncertainty under applicable documentation, or difficult and costly consent processes. This could materially and adversely affect our results of operations, cash flows, and liquidity.

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated bylaws provide that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or if the Court of Chancery does not have jurisdiction, the U.S. District Court for the District of Delaware) is the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of fiduciary duty owed by any of our current or former directors, officers, or other employees to us or to our stockholders; (iii) any action asserting a claim arising pursuant to the Delaware General Corporation Law, our restated certificate of incorporation, or our bylaws; (iv) any action or proceeding asserting a claim as to which Delaware General Corporation Law confers jurisdiction on the Court of Chancery or (v) any action asserting a claim governed by the internal affairs doctrine. The exclusive forum provisions in our bylaws may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our current or former directors, officers, or other employees, which may discourage such lawsuits against us and our current or former directors, officers, and other employees. Alternatively, if a court were to find the exclusive forum provisions contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could have a material and adverse impact on our business.

Uninsured losses could harm our operating results.

We self-insure against many business risks and expenses, such as intellectual property litigation and our medical benefit programs, where we believe we can adequately self-insure against the anticipated exposure and risk or where insurance is either not deemed cost-effective or is not available. We also maintain a program of insurance coverage for various types of liabilities, including, property, casualty, financial, business interruption, and other risks. We place our insurance coverage with various carriers in numerous jurisdictions. The types and amounts of insurance that we obtain vary from time to time and from location to location, depending on availability, cost, and our decisions with respect to risk retention. The policies are subject to deductibles, policy limits, and exclusions that result in our retention of a level of risk on a self-insurance basis. In addition, our insurance coverage may not be adequate to compensate us for all losses or failures that may occur. Losses not covered by insurance could be substantial and unpredictable and could adversely affect our financial condition and results of operations.

Our stock price may fluctuate.

Historically, our common stock has experienced substantial price volatility, particularly as a result of variations between our actual financial results and the published expectations of analysts and as a result of announcements by our competitors and us. Furthermore, speculation in the press or investment community about our strategic position, financial condition, results of operations, business, security of our products, liabilities or significant transactions can cause changes in our stock price. In addition, the stock market has recently experienced extreme price and volume fluctuations that have affected the market price of many technology companies in particular due to the COVID-19 pandemic. From time to time, economic weakness has contributed to extreme price and volume fluctuations in global stock markets that have also reduced the market price of many technology company stocks, including ours. These factors, as well as general economic and political conditions and the announcement of proposed and completed acquisitions or other significant transactions, or any difficulties associated with such transactions, by us or our current or potential competitors, may materially adversely affect the market price of our common stock in the future.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table provides stock repurchase activity during the three months ended March 31, 2020 (in millions, except per share amounts):

Period	Total Number of Shares Purchased ^(*)	Average Price Paid per Share ^(*)	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 Plans or Programs ^(*)
January 1 - January 31, 2020	1.8	\$ 24.44	1.8	\$ 1,700.0
February 1 - February 29, 2020	8.5	\$ 23.70	8.5	\$ 1,500.0
March 1 - March 31, 2020	_	\$ _	_	\$ 1,500.0
Total	10.3		10.3	

^(*) Shares were repurchased under our Board approved 2018 Stock Repurchase Program, which authorizes us to purchase an aggregate of up to \$3.0 billion of our common stock. Future share repurchases will be subject to a review of the circumstances in place at that time and will be made from time to time in private transactions or open market purchases as permitted by securities laws and other legal requirements, including Rule 10b-18 promulgated under the Exchange Act. This program may be discontinued at any time. For the majority of restricted stock units granted to executive officers of the Company, the number of shares issued on the date the restricted stock units vest is net of shares withheld to meet applicable tax withholding requirements. Although these withheld shares are not issued or considered common stock repurchases under our stock repurchase program and therefore are not included in the preceding table, they are treated as common stock repurchases in our financial statements as they reduce the number of shares that would have been issued upon vesting, see Note 8, Equity, in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

As part of the 2018 Stock Repurchase Program, on October 2019, we entered into an ASR, to repurchase an aggregate of approximately \$200.0 million of our outstanding common stock. During the three months ended December 31, 2019, we made an up-front payment of \$200.0 million pursuant to the ASR and received and retired an initial 6.4 million shares of our common stock for an aggregate price of \$160.0 million, based on the market price of \$25.15 per share of our common stock on the date of the transaction. During the three months ended March 31, 2020, the ASR was completed and an additional 1.8 million shares were received for a total repurchase of 8.2 million shares of our common stock at a volume weighted average repurchase price, less an agreed upon discount, of \$24.44 per share. The shares received by us were retired, accounted for as a reduction to stockholder's equity in the Condensed Consolidated Balance Sheets, and treated as a repurchase of common stock for purposes of calculating earnings per share.

During the three months ended March 31, 2020, we also repurchased 8.5 million shares of our common stock in the open market for an aggregate purchase price of \$200.0 million at an average price of \$23.70 per share, under the 2018 Stock Repurchase Program.

For further explanation of our ASR, see Note 8, Equity, in Notes to Condensed Consolidated Financial Statements in Item 1 of Part I of this Report.

Item 6. Exhibits

Exhibit Number	Description of Document
10.1	Performance Bonus Plan (As Amended and Restated Effective February 19, 2020)*
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350**
101	The following materials from Juniper Network Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, formatted in iXBRL (inline eXtensible Business Reporting Language): (i) the Condensed Consolidated Statements of Operations (ii) the Condensed Consolidated Statements of Comprehensive Income, (iii) the Condensed Consolidated Balance Sheets, (iv) the Condensed Consolidated Statements of Cash Flows, (v) the Condensed Consolidated Statements of Changes in Stockholders' Equity, and (vi) Notes to Condensed Consolidated Financial Statements, tagged as blocks of text*
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, formatted in Inline XBRL (included in Exhibit 101)*

^{*}Filed herewith.

^{**}Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant had duly caused this Report to be signed on its behalf by the undersigned thereunto duly authorized.

Juniper Networks, Inc.

May 5, 2020 By: /s/ Thomas A. Austin

Thomas A. Austin

Vice President, Corporate Controller and Chief Accounting Officer (Duly Authorized Officer and Principal Accounting Officer)

JUNIPER NETWORKS, INC.

PERFORMANCE BONUS PLAN (As Amended and Restated Effective February 19, 2020)

1. <u>Purposes of the Plan</u>. The Plan is intended to increase stockholder value and the success of the Company by motivating key executives to: (1) perform to the best of their abilities, and (2) achieve the Company's objectives. The Plan's goals are to be achieved by providing such executives with incentive awards based on the achievement of goals relating to the performance of the Company or upon the achievement of predetermined performance goals.

2. <u>Definitions</u>.

- (a) "Award" means, with respect to each Participant, the award determined pursuant to Section 6(a) below for a Performance Period.
 - (b) "Board" means the Board of Directors of the Company.
 - (c) "Code" means the Internal Revenue Code of 1986, as amended.
 - (d) "Committee" means the Compensation Committee of the Board.
- (e) "<u>Company</u>" means Juniper Networks, Inc. or any of its subsidiaries (as such term is defined in Code Section 424(f)).
- (f) "<u>Determination Date</u>" means any time when the achievement of the applicable Performance Goal(s) associated with the applicable Performance Period remains substantially uncertain; provided, however, that if the Determination Date occurs on or before the date on which 25% of the Performance Period has elapsed, the achievement of such Performance Goal(s) shall be deemed to be substantially uncertain.
 - (g) "Fiscal Year" means a fiscal year of the Company.
 - (h) "Maximum Award" means as to any Participant for any Performance Period, \$20 million.
 - (i) "Participant" shall have the meaning set forth in Section 4.
- (j) "Performance Goal(s)" means the goal(s) (or combined goal(s)) determined by the Committee (in its discretion) to be applicable to a Participant with respect to an Award. As determined by the Committee, the goal(s) for any Performance Period will be any one or more of the following performance criteria, applied to either the Company as a whole or, except with respect to stockholder return metrics, to a region, business or reporting unit, affiliate or business segment, and measured either on an absolute basis or relative to a pre-established target, to a previous period's results to a designated comparison group, and/or to another

Performance Goal and, with respect to financial metrics, may utilize any adjustment(s) established by the Committee on or prior to the Determination Date: (1) cash flow (including operating cash flow or free cash flow), (2) cash position, (3) revenue (on an absolute basis or adjusted for currency effects), (4) deferred revenue, (5) revenue growth, (6) contribution margin, (7) gross margin, (8) operating margin, (9) operating expenses or operating expenses as a percentage of revenue, (10) earnings (which may include, but is not limited to, earnings before interest, taxes, depreciation and/or amortization and net earnings), (11) earnings per share, (12) operating income, (13) net income, (14) stock price, (15) return on equity, (16) total stockholder return, (17) growth in stockholder value relative to a specified publicly reported index (such as the S&P 500 Index), (18) return on invested capital, (19) return on capital employed, (20) return on sales, (21) return on assets or net assets, (22) return on investment, (23) orders or net orders, (24) cost of goods sold, (25) debt or debt-to-equity ratio, (26) accounts receivable, (27) write-offs, (28) liquidity, (29) economic value added, (30) operating profit/loss or net operating profit/loss, (31) working capital, (32) price to earnings ratio, (33) market share, (34) contract awards, backlog or bookings, (35) overhead or other expense reduction, (36) credit rating, (37) customer indicators, (38) product invention, innovation or development, (39) attainment of research and development milestones, (40) improvements in productivity, (41) attainment of operating goals, (42) manufacturing, production or inventory, (43) mergers, acquisitions or divestitures, (44) financings, (45) days sales outstanding, (46) employee metrics, (47) leadership goals, and/or (48) other financial or strategic goals. Performance Goals may also consist of objective and/or subjective elements based on any financial and/or non-financial criteria (including, without limitation, subjective criteria and individual performance) as established by the Committee in its sole discretion, and the Committee may adjust such Awards in its sole discretion.

- (k) "<u>Performance Period</u>" means any Fiscal Year or portion thereof, or such other longer period, as determined by the Committee in its sole discretion.
 - (1) "Plan" means this Performance Bonus Plan.
 - (m) "Plan Year" means the Company's fiscal year.

3. Plan Administration.

- (a) The Committee shall be responsible for the general administration and interpretation of the Plan and for carrying out its provisions. The Committee may delegate specific administrative tasks to Company employees or others as appropriate for proper administration of the Plan. The Committee shall have such powers as may be necessary to discharge its duties hereunder, including, but not by way of limitation, the following powers and duties, but subject to the terms of the Plan:
- (i) discretionary authority to construe and interpret the terms of the Plan, and to determine eligibility, Awards and the amount, manner and time of payment of any Awards hereunder;

- (ii) to prescribe forms and procedures for purposes of Plan participation and distribution of Awards; and
- (iii) to adopt rules, regulations and bylaws and to take such actions as it deems necessary or desirable for the proper administration of the Plan.
- (b) Any rule or decision by the Committee that is not inconsistent with the provisions of the Plan shall be conclusive and binding on all persons, and shall be given the maximum deference permitted by law.
- 4. <u>Eligibility</u>. The employees eligible to participate in the Plan for a given Performance Period shall be any officer or key employee of the Company who is designated by the Committee in its sole discretion (each, a "Participant"). No person shall be automatically entitled to participate in the Plan.
- 5. <u>Determination of Awards</u>. On or prior to the Determination Date, the Committee, in its sole discretion, shall establish with respect to each Participant, one or more Performance Periods, one or more individual Participant incentive targets for each Performance Period, and the Performance Goal(s) to be met during such Performance Periods. Notwithstanding the foregoing, the Committee may also grant Awards that are not based on the attainment of specific Performance Goals. In no event shall a Participant's Award for any Performance Period exceed the Maximum Award.

6. Determination of Award Payment.

- (a) <u>Determination and Certification</u>. After the end of each Performance Period, the Committee shall certify in writing (which may be by approval of the minutes in which the certification was made) the extent to which the Performance Goals applicable to each Participant for the Performance Period were achieved or exceeded. Notwithstanding any contrary provision of the Plan, the Committee, in its sole discretion, may eliminate or reduce the Award payable to any Participant below that which otherwise would be payable. In addition, the Committee reserves the right, in its sole discretion, to increase the amount of an Award otherwise payable to a Participant with respect to any Performance Period.
- (b) <u>Right to Receive Payment</u>. Each Award under the Plan shall be paid solely from the general assets of the Company. Nothing in this Plan shall be construed to create a trust or to establish or evidence any Participant's claim of any right to payment of an Award other than as an unsecured general creditor with respect to any payment to which he or she may be entitled. Unless otherwise determined by the Committee, a Participant needs to be employed by the Company through the date the Award is paid in order to be eligible to receive an Award payout hereunder. The Committee may make exceptions to this requirement in the case of retirement, death or disability or under other circumstances, as determined by the Committee in its sole discretion.
 - (c) <u>Form of Distributions</u>. The Company shall distribute all Awards to the Participant in cash.

- (d) <u>Timing of Distributions</u>. In order to comply with the short-term deferral exception under Section 409A of the Code, if the Committee waives the requirement under Section 6(b) that a Participant must be employed on the date the Award is to be paid, payout shall occur no later than the 15th day of the third month following the later of (i) the end of the Company's taxable year in which such requirement is waived or (ii) the end of the calendar year in which such requirement is waived.
- (e) <u>Deferral</u>. The Committee, in its sole discretion, may permit a Participant to defer receipt of the payment of Awards that would otherwise be delivered to a Participant under the Plan. Any such deferral elections shall be subject to such rules and procedures as shall be determined by the Committee in its sole discretion.
- 7. Amendment and Termination of the Plan. The Committee may amend, modify, suspend or terminate the Plan, in whole or in part, at any time, including the adoption of amendments deemed necessary or desirable to correct any defect or to supply omitted data or to reconcile any inconsistency in the Plan or in any Award granted hereunder; provided, however, that no amendment, alteration, suspension or discontinuation shall be made which would impair any payments to Participants made prior to such amendment, modification, suspension or termination, unless the Committee has made a determination that such amendment or modification is in the best interests of all persons to whom Awards have theretofore been granted; provided further, however, that in no event may such an amendment or modification result in an increase in the amount of compensation payable pursuant to such Award. At no time before the actual distribution of funds to Participants under the Plan shall any Participant accrue any vested interest or right whatsoever under the Plan except as otherwise stated in this Plan. Nothing in this Section 7 is intended to limit the Company's ability to recover Plan payouts pursuant to any recoupment, clawback or similar policy or applicable law, rule or regulation then in effect.
- 8. <u>Withholding</u>. Distributions pursuant to this Plan shall be subject to all applicable income, employment, social insurance, National Insurance Contributions, payroll tax, fringe benefit tax, and other legally applicable tax or other withholding requirements.
- 9. <u>At-Will Employment</u>. No statement in this Plan or Award granted hereunder should be construed to grant any employee an employment contract of fixed duration or any other contractual rights, nor should this Plan or any Award granted hereunder be interpreted as creating an implied or an expressed contract of employment or any other contractual rights between the Company and its employees. The employment relationship between the Company and its employees is terminable at-will. This means that a Participant and the Company each may terminate the employment relationship at any time and for any or no reason.
- 10. <u>Successors</u>. All obligations of the Company under the Plan, with respect to Awards granted hereunder, shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business or assets of the Company.

11. <u>Indemnification</u>. Each person who is or shall have been a member of the Committee, or of the Board, shall be indemnified and held harmless by the Company against and from (a) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Award, and (b) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

12. Miscellaneous.

- (a) Nonassignment. The rights and privileges of a Participant under this Plan (including, without limitation, any Award granted to a Participant hereunder) shall not be assignable or transferable by the Participant except by will or the laws of intestacy. Upon any attempt to assign or transfer any Awards, rights or privileges, such Awards, rights or privileges are immediately null and void.
- (b) <u>Governing Law</u>. The Plan shall be governed by the laws of the State of California, without regard to conflicts of law provisions thereunder.
- (c) <u>Construction</u>. Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of the Plan. Except when otherwise indicated by the context, the singular shall include the plural and the plural shall include the singular. Use of the term "or" is not intended to be exclusive, unless the context clearly requires otherwise.
- (d) <u>Severability</u>. If a court of competent jurisdiction holds any provision invalid and unenforceable, the remaining provisions of the Plan shall continue in effect.
- (e) <u>Clawback</u>. An Award granted under the Plan will be subject to any provisions of applicable laws, rules or regulations providing for the recoupment or clawback of incentive compensation; the terms of any Company recoupment, clawback or similar policy in effect at the time of grant of the Award or otherwise agreed upon between the Company and the recipient of the Award; and any recoupment, clawback or similar provisions that may be included in any applicable forms governing any Awards granted under the Plan.

Certification of Principal Executive Officer Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

- I, Rami Rahim, certify that:
- 1. I have reviewed this Quarterly Report on Form 10-Q of Juniper Networks, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 5, 2020

/s/ Rami Rahim Rami Rahim Chief Executive Officer (Principal Executive Officer) Certification of Principal Financial Officer Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

- I, Kenneth B. Miller, certify that:
- 1. I have reviewed this Quarterly Report on Form 10-Q of Juniper Networks, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 5, 2020

\(\s\)/ Kenneth B. Miller
Kenneth B. Miller
Executive Vice President, Chief Financial Officer
(Principal Financial Officer)

Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350 As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Rami Rahim, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Juniper Networks, Inc. on Form 10-Q for the three months ended March 31, 2020, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Juniper Networks, Inc.

/s/ Rami Rahim Rami Rahim Chief Executive Officer May 5, 2020

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, Kenneth B. Miller, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Juniper Networks, Inc. on Form 10-Q for the three months ended March 31, 2020, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Juniper Networks, Inc.

/s/ Kenneth B. Miller Kenneth B. Miller Executive Vice President, Chief Financial Officer May 5, 2020