

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended April 30, 2020

or

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

For the transition period from _____ to _____

Commission File Number 001-35594

PALO ALTO NETWORKS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

20-2530195

(I.R.S. Employer
Identification No.)

3000 Tannery Way

Santa Clara, California 95054

(Address of principal executive office, including zip code)

(408) 753-4000

(Registrant's telephone number, including area code)

NA

(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.0001 par value per share	PANW	New York Stock Exchange

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

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

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

Large accelerated filer Accelerated filer Emerging growth company
Non-accelerated filer Smaller reporting company

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

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

The number of shares outstanding of the registrant's common stock as of May 14, 2020 was 96,465,888.

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PART I

ITEM 1. FINANCIAL STATEMENTS

PALO ALTO NETWORKS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in millions, except per share data)

	April 30, 2020	July 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,484.7	\$ 961.4
Short-term investments	554.1	1,841.7
Accounts receivable, net of allowance for doubtful accounts of \$1.8 and \$0.8 at April 30, 2020 and July 31, 2019, respectively	668.8	582.4
Prepaid expenses and other current assets	306.4	279.3
Total current assets	3,014.0	3,664.8
Property and equipment, net	357.2	296.0
Operating lease right-of-use assets	263.8	—
Long-term investments	151.2	575.4
Goodwill	1,812.9	1,352.3
Intangible assets, net	380.6	280.6
Other assets	522.1	423.1
Total assets	\$ 6,501.8	\$ 6,592.2
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 52.3	\$ 73.3
Accrued compensation	174.9	235.5
Accrued and other liabilities	253.9	162.4
Deferred revenue	1,854.6	1,582.1
Total current liabilities	2,335.7	2,053.3
Convertible senior notes, net	1,477.0	1,430.0
Long-term deferred revenue	1,516.0	1,306.6
Long-term operating lease liabilities	344.6	—
Other long-term liabilities	83.8	216.0
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Preferred stock; \$0.0001 par value; 100.0 shares authorized; none issued and outstanding at April 30, 2020 and July 31, 2019	—	—
Common stock and additional paid-in capital; \$0.0001 par value; 1,000.0 shares authorized; 96.5 and 96.8 shares issued and outstanding at April 30, 2020 and July 31, 2019, respectively	1,855.7	2,490.9
Accumulated other comprehensive loss	(2.0)	(3.7)
Accumulated deficit	(1,109.0)	(900.9)
Total stockholders' equity	744.7	1,586.3
Total liabilities and stockholders' equity	\$ 6,501.8	\$ 6,592.2

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in millions, except per share data)

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Revenue:				
Product	\$ 280.9	\$ 278.4	\$ 758.6	\$ 790.5
Subscription and support	588.5	448.2	1,699.4	1,303.3
Total revenue	869.4	726.6	2,458.0	2,093.8
Cost of revenue:				
Product	73.3	78.0	207.1	233.7
Subscription and support	185.0	126.9	502.0	357.3
Total cost of revenue	258.3	204.9	709.1	591.0
Total gross profit	611.1	521.7	1,748.9	1,502.8
Operating expenses:				
Research and development	196.3	139.1	552.2	380.8
Sales and marketing	388.4	339.0	1,129.0	973.6
General and administrative	82.9	62.3	228.9	192.6
Total operating expenses	667.6	540.4	1,910.1	1,547.0
Operating loss	(56.5)	(18.7)	(161.2)	(44.2)
Interest expense	(19.4)	(20.6)	(57.3)	(63.9)
Other income, net	8.1	18.2	35.1	47.2
Loss before income taxes	(67.8)	(21.1)	(183.4)	(60.9)
Provision for (benefit from) income taxes	7.0	(0.9)	24.7	0.2
Net loss	\$ (74.8)	\$ (20.2)	\$ (208.1)	\$ (61.1)
Net loss per share, basic and diluted	\$ (0.77)	\$ (0.21)	\$ (2.14)	\$ (0.65)
Weighted-average shares used to compute net loss per share, basic and diluted	96.7	94.4	97.2	94.1

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited, in millions)

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Net loss	\$ (74.8)	\$ (20.2)	\$ (208.1)	\$ (61.1)
Other comprehensive income (loss), net of tax:				
Change in unrealized gains (losses) on investments	0.4	2.4	2.0	8.1
Change in unrealized gains (losses) on cash flow hedges	(0.6)	0.2	(0.3)	1.1
Other comprehensive income (loss)	(0.2)	2.6	1.7	9.2
Comprehensive loss	\$ (75.0)	\$ (17.6)	\$ (206.4)	\$ (51.9)

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited, in millions)

	Three Months Ended April 30, 2020				
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of January 31, 2020	99.7	\$ 2,644.5	\$ (1.8)	\$ (1,034.2)	\$ 1,608.5
Net loss	—	—	—	(74.8)	(74.8)
Other comprehensive loss	—	—	(0.2)	—	(0.2)
Issuance of common stock in connection with employee equity incentive plans	1.0	46.4	—	—	46.4
Taxes paid related to net share settlement of equity awards	—	(4.8)	—	—	(4.8)
Share-based compensation for equity-based awards	—	169.6	—	—	169.6
Repurchase and retirement of common stock	(4.2)	(1,000.0)	—	—	(1,000.0)
Balance as of April 30, 2020	96.5	\$ 1,855.7	\$ (2.0)	\$ (1,109.0)	\$ 744.7

	Three Months Ended April 30, 2019				
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of January 31, 2019	93.7	\$ 1,941.5	\$ (9.8)	\$ (859.9)	\$ 1,071.8
Net loss	—	—	—	(20.2)	(20.2)
Other comprehensive income	—	—	2.6	—	2.6
Issuance of common stock in connection with employee equity incentive plans	1.0	36.6	—	—	36.6
Taxes paid related to net share settlement of equity awards	—	(3.6)	—	—	(3.6)
Share-based compensation for equity-based awards	—	140.4	—	—	140.4
Issuance of common and restricted common stock in connection with acquisition	1.2	224.2	—	—	224.2
Temporary equity reclassification	—	1.7	—	—	1.7
Balance as of April 30, 2019	95.9	\$ 2,340.8	\$ (7.2)	\$ (880.1)	\$ 1,453.5

	Nine Months Ended April 30, 2020				
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of July 31, 2019	96.8	\$ 2,490.9	\$ (3.7)	\$ (900.9)	\$ 1,586.3
Net loss	—	—	—	(208.1)	(208.1)
Other comprehensive income	—	—	1.7	—	1.7
Issuance of common stock in connection with employee equity incentive plans	2.8	83.5	—	—	83.5
Taxes paid related to net share settlement of equity awards	—	(16.8)	—	—	(16.8)
Share-based compensation for equity-based awards	—	496.2	—	—	496.2
Repurchase and retirement of common stock	(5.1)	(1,198.1)	—	—	(1,198.1)
Settlement of warrants	2.0	—	—	—	—
Balance as of April 30, 2020	96.5	\$ 1,855.7	\$ (2.0)	\$ (1,109.0)	\$ 744.7

Nine Months Ended April 30, 2019

	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of July 31, 2018	93.6	\$ 1,967.4	\$ (16.4)	\$ (790.7)	\$ 1,160.3
Cumulative-effect adjustment from adoption of new accounting pronouncement	—	—	—	(28.3)	(28.3)
Net loss	—	—	—	(61.1)	(61.1)
Other comprehensive income	—	—	9.2	—	9.2
Issuance of common stock in connection with employee equity incentive plans	3.0	70.5	—	—	70.5
Taxes paid related to net share settlement of equity awards	—	(24.6)	—	—	(24.6)
Share-based compensation for equity-based awards	—	423.0	—	—	423.0
Repurchase and retirement of common stock	(1.9)	(330.0)	—	—	(330.0)
Settlement of convertible notes	1.7	(12.2)	—	—	(12.2)
Common stock received from exercise of note hedges	(1.7)	—	—	—	—
Issuance of common and restricted common stock in connection with acquisition	1.2	225.9	—	—	225.9
Temporary equity reclassification	—	20.8	—	—	20.8
Balance as of April 30, 2019	95.9	\$ 2,340.8	\$ (7.2)	\$ (880.1)	\$ 1,453.5

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in millions)

	Nine Months Ended April 30,	
	2020	2019
Cash flows from operating activities		
Net loss	\$ (208.1)	\$ (61.1)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Share-based compensation for equity-based awards	484.2	417.5
Depreciation and amortization	145.6	111.6
(Gain) loss related to facility exit	(3.1)	4.1
Amortization of deferred contract costs	171.4	147.6
Amortization of debt discount and debt issuance costs	47.0	53.6
Amortization of operating lease right-of-use assets	34.2	—
Amortization of investment premiums, net of accretion of purchase discounts	(6.2)	(13.0)
Loss on conversions of convertible senior notes	—	2.6
Repayments of convertible senior notes attributable to debt discount	—	(67.1)
Changes in operating assets and liabilities, net of effects of acquisitions:		
Accounts receivable, net	(67.2)	63.8
Prepaid expenses and other assets	(208.0)	(164.4)
Accounts payable	(22.8)	23.2
Accrued compensation	(71.6)	(22.7)
Accrued and other liabilities	(47.1)	(10.7)
Deferred revenue	453.7	339.1
Net cash provided by operating activities	702.0	824.1
Cash flows from investing activities		
Purchases of investments	(295.5)	(2,426.6)
Proceeds from sales of investments	310.8	3.5
Proceeds from maturities of investments	1,706.4	1,506.8
Business acquisitions, net of cash acquired	(583.5)	(382.8)
Purchases of property, equipment, and other assets	(182.6)	(78.1)
Net cash provided by (used in) investing activities	955.6	(1,377.2)
Cash flows from financing activities		
Repayments of convertible senior notes attributable to principal and equity component	—	(348.5)
Payments for debt issuance costs	—	(3.7)
Repurchases of common stock	(1,198.1)	(330.0)
Proceeds from sales of shares through employee equity incentive plans	83.7	70.3
Payments for taxes related to net settlement of equity awards	(16.8)	(24.6)
Payments for deferred consideration related to business acquisitions	(1.3)	(1.3)
Net cash used in financing activities	(1,132.5)	(637.8)
Net increase (decrease) in cash, cash equivalents, and restricted cash	525.1	(1,190.9)
Cash, cash equivalents, and restricted cash - beginning of period	965.0	2,509.2
Cash, cash equivalents, and restricted cash - end of period	\$ 1,490.1	\$ 1,318.3
Reconciliation of cash, cash equivalents, and restricted cash to the condensed consolidated balance sheets		
Cash and cash equivalents	\$ 1,484.7	\$ 1,314.9
Restricted cash included in prepaid expenses and other current assets	2.7	2.2
Restricted cash included in other assets	2.7	1.2
Total cash, cash equivalents, and restricted cash	\$ 1,490.1	\$ 1,318.3
Non-cash investing and financing activities		
Equity consideration for business acquisitions	\$ (11.0)	\$ (225.9)

See notes to condensed consolidated financial statements.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Palo Alto Networks, Inc. (the “Company,” “we,” “us,” or “our”), located in Santa Clara, California, was incorporated in March 2005 under the laws of the State of Delaware and commenced operations in April 2005. We offer platforms that empower enterprises, service providers, and government entities to secure their organizations by safely enabling applications and data running in their networks, on their endpoints, and in the cloud, and by preventing breaches that stem from targeted cyberattacks.

Basis of Presentation and Principles of Consolidation

The accompanying condensed consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles (“GAAP”), consistent in all material respects with those applied in our Annual Report on Form 10-K for the fiscal year ended July 31, 2019, filed with the Securities and Exchange Commission (“SEC”) on September 9, 2019. Our condensed consolidated financial statements include our accounts and our wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Our condensed consolidated financial statements are unaudited, but include all adjustments of a normal recurring nature necessary for a fair presentation of our quarterly results. We have made estimates and judgments affecting the amounts reported in our condensed consolidated financial statements and the accompanying notes. The actual results that we experience may differ materially from our estimates.

Certain prior period amounts have been reclassified to conform to our current period presentation.

Our condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and related notes in our Annual Report on Form 10-K for the fiscal year ended July 31, 2019.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. We base our estimates on historical experience and also on assumptions that we believe are reasonable. Actual results could differ materially from those estimates due to risks and uncertainties, including uncertainty in the current economic environment due to the recent outbreak of COVID-19.

Summary of Significant Accounting Policies

There have been no material changes to our significant accounting policies as of and for the nine months ended April 30, 2020, as compared to the significant accounting policies described in our Annual Report on Form 10-K for the fiscal year ended July 31, 2019, except for the change in our accounting policies for leases due to our adoption of new lease accounting guidance. Refer to “Recently Adopted Accounting Pronouncements” below and Note 10. Leases and Other Office Facilities.

Recently Adopted Accounting Pronouncements

Leases

In February 2016, the Financial Accounting Standards Board (“FASB”) issued new authoritative guidance on lease accounting. Among its provisions, the standard requires lessees to recognize right-of-use assets and lease liabilities on the balance sheet for operating leases and also requires additional qualitative and quantitative disclosures about lease arrangements.

We adopted this standard effective August 1, 2019 on a modified retrospective basis, under which financial results reported in periods prior to fiscal 2020 were not adjusted. We elected the package of practical expedients, which allowed us to carry forward our historical assessments of whether contracts are or contain leases, lease classification, and initial direct costs. Additionally, we elected to account for lease and non-lease components as a single lease component and to not recognize right-of-use assets and lease liabilities for leases with a term of 12 months or less.

The most significant impact of adopting this guidance was the recognition of \$286.4 million of operating lease right-of-use assets and \$442.4 million of operating lease liabilities on our condensed consolidated balance sheet as of August 1, 2019, which included reclassifying previously recognized \$129.0 million in lease incentives, deferred or prepaid rent, as well as \$27.0 million in cease-use liabilities to operating lease right-of-use assets.

The adoption of this standard had no impact on our condensed consolidated statements of operations and condensed consolidated statements of cash flows. Refer to Note 10. Leases and Other Office Facilities for further discussion.

Recently Issued Accounting Pronouncements*Financial Instruments - Credit Losses*

In June 2016, the FASB issued new authoritative guidance on the accounting for credit losses on most financial assets and certain financial instruments. The standard replaces the existing incurred loss model with an expected credit loss model for financial assets measured at amortized cost, including trade receivables, and requires that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down. The standard is effective for us in our first quarter of fiscal 2021 and will be applied on a modified retrospective basis. We are currently evaluating whether this standard will have a material impact on our condensed consolidated financial statements.

2. Revenue**Disaggregation of Revenue**

The following table presents revenue by geographic theater (in millions):

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Revenue:				
Americas				
United States	\$ 553.5	\$ 464.3	\$ 1,554.0	\$ 1,314.8
Other Americas	40.7	33.5	114.5	108.2
Total Americas	594.2	497.8	1,668.5	1,423.0
Europe, the Middle East, and Africa ("EMEA")	171.5	138.7	485.3	414.7
Asia Pacific and Japan ("APAC")	103.7	90.1	304.2	256.1
Total revenue	\$ 869.4	\$ 726.6	\$ 2,458.0	\$ 2,093.8

The following table presents revenue for groups of similar products and services (in millions):

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Revenue:				
Product	\$ 280.9	\$ 278.4	\$ 758.6	\$ 790.5
Subscription and support				
Subscription	354.3	258.8	1,015.5	739.8
Support	234.2	189.4	683.9	563.5
Total subscription and support	588.5	448.2	1,699.4	1,303.3
Total revenue	\$ 869.4	\$ 726.6	\$ 2,458.0	\$ 2,093.8

Deferred Revenue

During the nine months ended April 30, 2020, we recognized approximately \$1,265.0 million of revenue pertaining to amounts that were deferred as of July 31, 2019.

Remaining Performance Obligations

Revenue expected to be recognized from remaining performance obligations was \$3.5 billion as of April 30, 2020, of which we expect to recognize approximately \$1.9 billion over the next 12 months and the remainder thereafter.

3. Fair Value Measurements

We categorize assets and liabilities recorded or disclosed at fair value on our condensed consolidated balance sheets based upon the level of judgment associated with inputs used to measure their fair value. The categories are as follows:

- Level 1—Inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the assets or liabilities, either directly or indirectly through market corroboration, for substantially the full term of the financial instruments.

- Level 3—Inputs are unobservable inputs based on our own assumptions used to measure assets and liabilities at fair value. The inputs require significant management judgment or estimation.

The following table presents the fair value of our financial assets and liabilities measured at fair value on a recurring basis using the above input categories as of April 30, 2020 and July 31, 2019 (in millions):

	April 30, 2020				July 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash equivalents:								
Money market funds	\$ 762.6	\$ —	\$ —	\$ 762.6	\$ 369.1	\$ —	\$ —	\$ 369.1
Certificates of deposit	—	—	—	—	—	12.0	—	12.0
Commercial paper	—	—	—	—	—	19.3	—	19.3
U.S. government and agency securities	—	—	—	—	—	54.4	—	54.4
Total cash equivalents	762.6	—	—	762.6	369.1	85.7	—	454.8
Short-term investments:								
Certificates of deposit	—	22.3	—	22.3	—	17.5	—	17.5
Commercial paper	—	—	—	—	—	8.9	—	8.9
Corporate debt securities	—	95.1	—	95.1	—	375.5	—	375.5
U.S. government and agency securities	—	436.7	—	436.7	—	1,439.8	—	1,439.8
Total short-term investments	—	554.1	—	554.1	—	1,841.7	—	1,841.7
Long-term investments:								
Corporate debt securities	—	46.0	—	46.0	—	214.3	—	214.3
U.S. government and agency securities	—	105.2	—	105.2	—	361.1	—	361.1
Total long-term investments	—	151.2	—	151.2	—	575.4	—	575.4
Prepaid expenses and other current assets:								
Foreign currency forward contracts	—	0.3	—	0.3	—	1.3	—	1.3
Total prepaid expenses and other current assets	—	0.3	—	0.3	—	1.3	—	1.3
Total assets measured at fair value	\$ 762.6	\$ 705.6	\$ —	\$ 1,468.2	\$ 369.1	\$ 2,504.1	\$ —	\$ 2,873.2
Accrued and other liabilities:								
Foreign currency forward contracts	\$ —	\$ 3.3	\$ —	\$ 3.3	\$ —	\$ 3.8	\$ —	\$ 3.8
Total accrued and other liabilities	—	3.3	—	3.3	—	3.8	—	3.8
Total liabilities measured at fair value	\$ —	\$ 3.3	\$ —	\$ 3.3	\$ —	\$ 3.8	\$ —	\$ 3.8

Refer to Note 9. Debt for the carrying amount and estimated fair value of our convertible senior notes as of April 30, 2020 and July 31, 2019.

4. Cash Equivalents and Investments

Available-for-sale Debt Securities

The following tables summarize the amortized cost, unrealized gains and losses, and fair value of our available-for-sale debt securities as of April 30, 2020 and July 31, 2019 (in millions):

	April 30, 2020			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Investments:				
Certificates of deposit	\$ 22.3	\$ —	\$ —	\$ 22.3
Corporate debt securities	139.4	1.7	—	141.1
U.S. government and agency securities	537.6	4.3	—	541.9
Total available-for-sale investments	\$ 699.3	\$ 6.0	\$ —	\$ 705.3

	July 31, 2019			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash equivalents:				
Certificates of deposit	\$ 12.0	\$ —	\$ —	\$ 12.0
Commercial paper	19.3	—	—	19.3
U.S. government and agency securities	54.4	—	—	54.4
Total available-for-sale cash equivalents	\$ 85.7	\$ —	\$ —	\$ 85.7
Investments:				
Certificates of deposit	\$ 17.5	\$ —	\$ —	\$ 17.5
Commercial paper	8.9	—	—	8.9
Corporate debt securities	587.8	2.3	(0.3)	589.8
U.S. government and agency securities	1,799.5	2.6	(1.2)	1,800.9
Total available-for-sale investments	\$ 2,413.7	\$ 4.9	\$ (1.5)	\$ 2,417.1

Unrealized losses related to these securities are due to interest rate fluctuations as opposed to credit quality. In addition, we do not intend to sell and it is not likely that we would be required to sell these securities before recovery of their amortized cost basis, which may be at maturity. As a result, there were no other-than-temporary impairments for these securities at April 30, 2020 and July 31, 2019.

The following table summarizes the amortized cost and fair value of our available-for-sale debt securities as of April 30, 2020, by contractual years-to-maturity (in millions):

	Amortized Cost	Fair Value
Due within one year	\$ 551.0	\$ 554.1
Due between one and three years	148.3	151.2
Total	\$ 699.3	\$ 705.3

Marketable Equity Securities

Marketable equity securities consist of money market funds and are included in cash and cash equivalents in our condensed consolidated balance sheets. As of April 30, 2020 and July 31, 2019, the carrying value of our marketable equity securities were \$762.6 million and \$369.1 million, respectively. There were no unrealized gains or losses recognized for these securities during the three and nine months ended April 30, 2020 and 2019.

5. Derivative Instruments

As a global business, we are exposed to currency exchange rate risk. Substantially all of our revenue is transacted in U.S. dollars, however, a portion of our operating expenditures are incurred outside of the United States and are denominated in foreign currencies, making them subject to fluctuations in foreign currency exchange rates. We enter into foreign currency derivative contracts with maturities of 15 months or less, which we designate as cash flow hedges, to manage the foreign currency exchange rate risk associated with these expenditures.

These derivative contracts expose us to credit risk to the extent that the counterparties may be unable to meet the terms of the arrangement. We mitigate this credit risk by transacting with major financial institutions with high credit ratings and also enter into master netting arrangements, which permit net settlement of transactions with the same counterparty. We are not required to pledge, and are not entitled to receive, cash collateral related to these derivative instruments. We do not enter into derivative contracts for trading or speculative purposes.

Our derivative financial instruments are recorded at fair value, on a gross basis, as either assets or liabilities in our condensed consolidated balance sheets. Gains or losses related to our cash flow hedges are recorded as a component of accumulated other comprehensive income (loss) ("AOCI") in our condensed consolidated balance sheets and are reclassified into the financial statement line item associated with the underlying hedged transaction in our condensed consolidated statements of operations when the underlying hedged transaction is recognized in earnings. If it becomes probable that the hedged transaction will not occur, the cumulative unrealized gain or loss is reclassified immediately from AOCI into the financial statement line item associated with the underlying hedged transaction in our condensed consolidated statements of operations. Gains or losses related to non-designated derivative instruments are recognized in other income (expense), net in our condensed consolidated statements of operations for each period until the instrument matures, is terminated, is re-designated as a qualified cash flow hedge, or is sold. Derivatives designated as cash flow hedges are classified in our condensed consolidated statements of cash flows in the same manner as the underlying hedged transaction, primarily within cash flows from operating activities.

As of April 30, 2020 and July 31, 2019, the total notional amount of our outstanding foreign currency forward contracts was \$106.0 million and \$307.2 million, respectively. Refer to Note 3. Fair Value Measurements for the fair value of our derivative instruments as reported on our condensed consolidated balance sheets as of April 30, 2020.

During the three and nine months ended April 30, 2020 and 2019, both unrealized gains and losses recognized in AOCI related to our cash flow hedges and amounts reclassified into earnings were not material. Unrealized losses in AOCI related to our cash flow hedges as of April 30, 2020 and 2019 were not material.

6. Acquisitions

CloudGenix Inc.

On April 21, 2020, we completed our acquisition of 100% of the voting interest of CloudGenix Inc. ("CloudGenix"), a privately-held company. We believe the acquisition will strengthen our secure access service edge ("SASE") platform. The total purchase consideration for the acquisition of CloudGenix was \$402.7 million, which consisted of the following (in millions):

	Amount
Cash	\$ 396.1
Fair value of replacement awards	6.6
Total	\$ 402.7

As part of the acquisition, we issued \$30.3 million of replacement awards, of which the portion attributable to services performed prior to the acquisition date was allocated to purchase consideration. The remaining fair value was allocated to future services and will be expensed over the remaining service periods as share-based compensation.

We have accounted for this transaction as a business combination and allocated the purchase consideration to assets acquired and liabilities assumed based on preliminary estimated fair values, as presented in the following table (in millions):

	Amount
Goodwill	\$ 301.2
Identified intangible assets	109.9
Cash	8.3
Net liabilities assumed	(16.7)
Total	\$ 402.7

Goodwill generated from this business combination is primarily attributable to the assembled workforce and expected post-acquisition synergies from integrating CloudGenix technology into our platforms. The goodwill is not deductible for income tax purposes.

The following table presents details of the identified intangible assets acquired (in millions, except years):

	Fair Value	Estimated Useful Life
Developed technology	\$ 67.2	5 years
Customer relationships	42.7	10 years
Total	\$ 109.9	

Aporeto, Inc.

On December 23, 2019, we completed our acquisition of 100% of the voting interest of Aporeto, Inc. (“Aporeto”), a privately-held machine identity-based microsegmentation company. We believe the acquisition will strengthen our cloud-native security platform capabilities delivered by Prisma Cloud. The total purchase consideration for the acquisition of Aporeto was \$144.1 million, which consisted of the following (in millions):

	Amount
Cash	\$ 139.8
Fair value of replacement awards	4.3
Total	\$ 144.1

As part of the acquisition, we issued \$16.4 million of replacement awards, of which the portion attributable to services performed prior to the acquisition date was allocated to purchase consideration. The remaining fair value was allocated to future services and will be expensed over the remaining service periods as share-based compensation.

We have accounted for this transaction as a business combination and allocated the purchase consideration to assets acquired and liabilities assumed based on preliminary estimated fair values, as presented in the following table (in millions):

	Amount
Goodwill	\$ 111.3
Identified intangible assets	23.8
Cash	10.5
Net liabilities assumed	(1.5)
Total	\$ 144.1

Goodwill generated from this business combination is primarily attributable to the assembled workforce and expected post-acquisition synergies from integrating Aporeto’s technology into our platforms. The goodwill is not deductible for income tax purposes.

The following table presents details of the identified intangible assets acquired (in millions, except years):

	Fair Value	Estimated Useful Life
Developed technology	\$ 20.5	7 years
Customer relationships	3.3	4 years
Total	\$ 23.8	

Zingbox, Inc.

On September 20, 2019, we completed our acquisition of 100% of the voting equity interest of Zingbox, Inc. (“Zingbox”), a privately-held Internet of Things (“IoT”) security company. We believe the acquisition will accelerate our delivery of IoT security through our Next-Generation Firewall and Cortex platforms. The total purchase consideration for the acquisition of Zingbox was \$66.4 million in cash.

As part of the acquisition, we issued replacement equity awards with a total fair value of \$5.7 million, which will be expensed over the remaining service periods as share-based compensation.

We have accounted for this transaction as a business combination and allocated the purchase consideration to assets acquired and liabilities assumed based on preliminary estimated fair values, as presented in the following table (in millions):

	Amount
Goodwill	\$ 48.1
Identified intangible assets	20.4
Net liabilities assumed	(2.1)
Total	<u>\$ 66.4</u>

Goodwill generated from this business combination is primarily attributable to the assembled workforce and expected post-acquisition synergies from integrating Zingbox’s technology into our platforms. The goodwill is not deductible for income tax purposes.

The following table presents details of the identified intangible assets acquired (in millions, except years):

	Fair Value	Estimated Useful Life
Developed technology	\$ 18.6	5 years
Customer relationships	1.8	8 years
Total	<u>\$ 20.4</u>	

Additional Acquisition-Related Information

The operating results of the acquired companies are included in our condensed consolidated statements of operations from the dates of acquisition. Pro forma results of operations have not been presented because the effects of the acquisitions were not material to our condensed consolidated statements of operations.

Additional information related to the acquired companies, such as that related to income tax and other contingencies, existing as of the respective acquisition dates but unknown to us may become known during the remainder of the measurement period, not to exceed 12 months from the acquisition date, which may result in changes to the amounts and allocations recorded.

7. Goodwill and Intangible Assets**Goodwill**

The following table presents details of our goodwill during the nine months ended April 30, 2020 (in millions):

	Amount
Balance as of July 31, 2019	\$ 1,352.3
Goodwill acquired	460.6
Balance as of April 30, 2020	<u>\$ 1,812.9</u>

Purchased Intangible Assets

The following table presents details of our purchased intangible assets as of April 30, 2020 and July 31, 2019 (in millions):

	April 30, 2020			July 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intangible assets subject to amortization:						
Developed technology	\$ 425.9	\$ (126.5)	\$ 299.4	\$ 318.8	\$ (78.7)	\$ 240.1
Customer relationships	87.6	(9.7)	77.9	39.8	(4.7)	35.1
Acquired intellectual property	8.9	(5.6)	3.3	8.9	(5.1)	3.8
Trade name and trademarks	9.4	(9.4)	—	9.4	(9.4)	—
Other	2.2	(2.2)	—	2.2	(2.2)	—
Total intangible assets subject to amortization	534.0	(153.4)	380.6	379.1	(100.1)	279.0
Intangible assets not subject to amortization:						
In-process research and development	—	—	—	1.6	—	1.6
Total purchased intangible assets	\$ 534.0	\$ (153.4)	\$ 380.6	\$ 380.7	\$ (100.1)	\$ 280.6

We recognized amortization expense of \$19.3 million and \$54.1 million for the three and nine months ended April 30, 2020, respectively, and \$14.7 million and \$38.5 million for the three and nine months ended April 30, 2019, respectively.

The following table summarizes estimated future amortization expense of our intangible assets as of April 30, 2020 (in millions):

	Amount
Fiscal years ending July 31:	
Remaining 2020	\$ 22.9
2021	89.7
2022	85.3
2023	59.1
2024	51.1
2025 and thereafter	72.5
Total future amortization expense	\$ 380.6

8. Deferred Contract Costs

The following table presents details of our short-term and long-term deferred contract costs as of April 30, 2020 and July 31, 2019 (in millions):

	April 30, 2020	July 31, 2019
Short-term deferred contract costs	\$ 173.7	\$ 151.1
Long-term deferred contract costs	343.6	324.2
Total deferred contract costs	\$ 517.3	\$ 475.3

We recognized amortization expense for our deferred contract costs of \$60.5 million and \$171.4 million during the three and nine months ended April 30, 2020, respectively, and \$57.2 million and \$147.6 million during the three and nine months ended April 30, 2019, respectively. We did not recognize any impairment losses on our deferred contract costs during the three and nine months ended April 30, 2020 or 2019.

9. Debt

Convertible Senior Notes

In June 2014, we issued \$575.0 million aggregate principal amount of 0.0% Convertible Senior Notes due 2019 (the "2019 Notes"), and in July 2018, we issued \$1.7 billion aggregate principal amount of 0.75% Convertible Senior Notes due 2023 (the "2023 Notes" and, together with the 2019 Notes, the "Notes"). The 2023 Notes bear interest at a fixed rate of 0.75% per year, payable semi-annually in arrears on January 1 and July 1 of each year, beginning on January 1, 2019. The 2023 Notes are governed by an indenture

between us, as the issuer, and U.S. Bank National Association, as Trustee (the “Indenture”). The 2023 Notes are unsecured, unsubordinated obligations and the Indenture governing the 2023 Notes does not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness, or the issuance or repurchase of securities by us or any of our subsidiaries. The 2019 Notes were converted prior to or settled on the maturity date of July 1, 2019, in accordance with their terms. The 2023 Notes mature on July 1, 2023. We cannot redeem the 2023 Notes prior to maturity.

The 2023 Notes are convertible for up to 6.4 million shares of our common stock at an initial conversion rate of approximately 3.7545 shares of common stock per \$1,000 principal amount, which is equal to an initial conversion price of approximately \$266.35 per share of common stock, subject to adjustments. Holders of the 2023 Notes may surrender their 2023 Notes for conversion at their option at any time prior to the close of business on the business day immediately preceding April 1, 2023, only under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ending on October 31, 2018 (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the applicable conversion price for the 2023 Notes on each applicable trading day (the “sale price condition”);
- during the five business day period after any five consecutive trading day period (the “measurement period”), in which the trading price per \$1,000 principal amount of the 2023 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate for the 2023 Notes on each such trading day; or
- upon the occurrence of specified corporate events.

On or after April 1, 2023, holders may surrender all or any portion of their 2023 Notes for conversion at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the foregoing conditions, and such conversions will be settled upon the maturity date. Upon conversion, holders of the 2023 Notes will receive cash equal to the aggregate principal amount of the 2023 Notes to be converted, and, at our election, cash and/or shares of our common stock for any amounts in excess of the aggregate principal amount of the 2023 Notes being converted.

The conversion price will be subject to adjustment in some events. Holders who convert their 2023 Notes in connection with certain corporate events that constitute a “make-whole fundamental change” under the Indenture are, under certain circumstances, entitled to an increase in the conversion rate. Additionally, upon the occurrence of a corporate event that constitutes a “fundamental change” under the Indenture, holders of the 2023 Notes may require us to repurchase for cash all or a portion of the 2023 Notes at a repurchase price equal to 100% of the principal amount of the 2023 Notes plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The sale price condition was not met for the 2023 Notes during the fiscal quarters ended April 30, 2020 or July 31, 2019. Since the 2023 Notes were not convertible, the net carrying amount of the 2023 Notes was classified as a long-term liability and the equity component was included in additional paid-in capital in our condensed consolidated balance sheets as of April 30, 2020 and July 31, 2019. As of April 30, 2020, all of the 2023 Notes remained outstanding.

The following table sets forth the components of the 2023 Notes as of April 30, 2020 and July 31, 2019 (in millions):

	April 30, 2020	July 31, 2019
Liability component:		
Principal	\$ 1,693.0	\$ 1,693.0
Less: debt discount and debt issuance costs, net of amortization	216.0	263.0
Net carrying amount	<u>\$ 1,477.0</u>	<u>\$ 1,430.0</u>
Equity component	<u>\$ 315.0</u>	<u>\$ 315.0</u>

The total estimated fair value of the 2023 Notes was \$1.7 billion and \$1.9 billion at April 30, 2020 and July 31, 2019, respectively. The fair value was determined based on the closing trading price per \$100 of the 2023 Notes as of the last day of trading for the period. We consider the fair value of the 2023 Notes at April 30, 2020 and July 31, 2019 to be a Level 2 measurement. The fair value of the 2023 Notes is primarily affected by the trading price of our common stock and market interest rates. Based on the closing price of our common stock on April 30, 2020, the if-converted value of the 2023 Notes was less than its principal amount.

The following table sets forth interest expense recognized related to the Notes (dollars in millions):

	Three Months Ended April 30,						Nine Months Ended April 30,					
	2020			2019			2020			2019		
	2019 Notes	2023 Notes	Total	2019 Notes	2023 Notes	Total	2019 Notes	2023 Notes	Total	2019 Notes	2023 Notes	Total
Contractual interest expense	\$ —	\$ 3.2	\$ 3.2	\$ —	\$ 3.3	\$ 3.3	\$ —	\$ 9.5	\$ 9.5	\$ —	\$ 9.6	\$ 9.6
Amortization of debt discount	—	15.3	15.3	1.6	14.7	16.3	—	45.5	45.5	7.6	43.6	51.2
Amortization of debt issuance costs	—	0.5	0.5	0.3	0.5	0.8	—	1.5	1.5	1.0	1.4	2.4
Total interest expense recognized	\$ —	\$ 19.0	\$ 19.0	\$ 1.9	\$ 18.5	\$ 20.4	\$ —	\$ 56.5	\$ 56.5	\$ 8.6	\$ 54.6	\$ 63.2
Effective interest rate of the liability component	— %	5.2 %		4.8 %	5.2 %		— %	5.2 %		4.8 %	5.2 %	

Note Hedges

To minimize the impact of potential economic dilution upon conversion of the Notes, we entered into separate convertible note hedge transactions (the “2019 Note Hedges,” with respect to the 2019 Notes, and the “2023 Note Hedges,” with respect to the 2023 Notes, and collectively, the “Note Hedges”) with respect to our common stock concurrent with the issuance of each series of Notes.

Upon the settlement of the 2019 Notes, we exercised the corresponding portion of our 2019 Note Hedges during the year ended July 31, 2019 and received shares of our common stock that fully offset the shares issued in excess of the principal amount of the converted 2019 Notes. The 2019 Note Hedges expired upon maturity of the 2019 Notes.

The 2023 Note Hedges cover up to 6.4 million shares of our common stock at a strike price per share that corresponds to the initial applicable conversion price of the 2023 Notes, which are also subject to adjustment, and are exercisable upon conversion of the 2023 Notes. The 2023 Note Hedges will expire upon maturity of the 2023 Notes. The 2023 Note Hedges are separate transactions and are not part of the terms of 2023 Notes. Holders of the 2023 Notes will not have any rights with respect to the 2023 Note Hedges. Any shares of our common stock receivable by us under the 2023 Note Hedges are excluded from the calculation of diluted earnings per share as they are antidilutive. We paid an aggregate amount of \$332.0 million for the 2023 Note Hedges, which is included in additional paid-in capital in our consolidated balance sheets.

Warrants

Separately, but concurrently with the issuance of each series of Notes, we entered into transactions whereby we sold warrants (the “2019 Warrants,” with respect to the 2019 Notes, and the “2023 Warrants,” with respect to the 2023 Notes, and collectively, the “Warrants”) to acquire shares of our common stock, subject to anti-dilution adjustments. The 2019 Warrants became exercisable beginning October 2019 and the 2023 Warrants are exercisable beginning October 2023.

The following table presents details of the Warrants (in millions, except per share data):

	Initial Number of Shares	Strike Price per Share	Aggregate Proceeds
2019 Warrants	5.2	\$ 137.85	\$ 78.3
2023 Warrants	6.4	\$ 417.80	\$ 145.4

The shares issuable under the Warrants will be included in the calculation of diluted earnings per share when the average market value per share of our common stock for the reporting period exceeds the applicable strike price for such series of Warrants. The Warrants are separate transactions and are not part of either series of Notes or Note Hedges and are not remeasured through earnings each reporting period. Holders of the Notes of either series will not have any rights with respect to the Warrants. The aggregate proceeds received from the sale of the Warrants are included in additional paid-in capital in our consolidated balance sheets.

During the nine months ended April 30, 2020, we net settled all 2019 Warrants with 2.0 million shares or \$462.0 million in fair value of our common stock. The number of net shares issued was determined based on the number of 2019 Warrants exercised multiplied by the difference between the strike price of the 2019 Warrants and their daily volume weighted-average stock price.

Revolving Credit Facility

On September 4, 2018, we entered into a credit agreement (the “Credit Agreement”) with certain institutional lenders that provides for a \$400.0 million unsecured revolving credit facility (the “Credit Facility”), with an option to increase the amount of the

Credit Facility by up to an additional \$350.0 million, subject to certain conditions. The Credit Facility matures on the earlier of (i) September 4, 2023 and (ii) the date that is 91 days prior to the stated maturity of our 2023 Notes if (a) any of the 2023 Notes are still outstanding and (b) our unrestricted cash and cash equivalents are less than the then outstanding principal amount of our 2023 Notes plus \$400.0 million.

The borrowings under the Credit Facility bear interest, at our option, at a base rate plus a spread of 0.00% to 0.75%, or an adjusted LIBO rate plus a spread of 1.00% to 1.75%, in each case with such spread being determined based on our leverage ratio. We are obligated to pay an ongoing commitment fee on undrawn amounts at a rate of 0.125% to 0.250%, depending on our leverage ratio. As of April 30, 2020, there were no amounts outstanding and we were in compliance with all covenants under the Credit Agreement.

10. Leases and Other Office Facilities

We determine if an arrangement is a lease at inception. We evaluate classification of leases at commencement and, as necessary, at modification. Operating leases are included in operating lease right-of-use assets, accrued and other liabilities, and long-term operating lease liabilities on our condensed consolidated balance sheets beginning August 1, 2019. We did not have any material finance leases in any of the periods presented.

Operating lease right-of-use assets represent our right to use an underlying asset for the lease term. Operating lease liabilities represent our obligation to make payments arising from the lease. Operating lease right-of-use assets and liabilities are recognized at the present value of the future lease payments at the lease commencement date. The interest rate used to determine the present value of the future lease payments is our incremental borrowing rate, because the interest rates implicit in most of our leases are not readily determinable. Our incremental borrowing rate is estimated to approximate the interest rate on a collateralized basis with similar terms and payments, and in economic environments where the leased asset is located. Operating lease right-of-use assets also include adjustments related to lease incentives, prepaid or accrued rent and initial direct lease costs. Operating lease right-of-use assets are subject to evaluation for impairment or disposal on a basis consistent with other long-lived assets.

Our lease terms may include periods under options to extend or terminate the lease when it is reasonably certain that we will exercise that option. We generally use the base, non-cancelable lease term when determining the lease assets and liabilities. Operating lease cost is generally recognized on a straight-line basis over the lease term.

We account for lease and non-lease components as a single lease component and do not recognize right-of-use assets and lease liabilities for leases with a term of 12 months or less. Payments under our lease arrangements are primarily fixed, however, certain lease agreements contain variable payments, which are expensed as incurred and not included in the operating lease right-of-use assets and liabilities. Variable lease payments are primarily comprised of payments affected by the Consumer Price Index, common area maintenance, and utility charges.

We have entered into various non-cancelable operating leases primarily for our facilities with original lease periods expiring through the year ending July 31, 2028.

In December 2019, we entered into lease termination agreements for our previous corporate headquarters in Santa Clara, California, which we ceased use of in August 2017. Under the arrangements, we terminated these leases effective in December 2019, prior to their expiration date of July 2023. The early termination fee is \$25.0 million, payable in equal quarterly installments from April 2020 through July 2023. Upon termination, we recorded a decrease of \$13.6 million in operating lease liabilities based on the payment schedule of the early termination fee discounted by the incremental borrowing rate for the remaining payment term. We also decreased right-of-use asset by \$8.7 million upon surrendering possession of the properties. As a result, during the nine months ended April 30, 2020, we recorded a gain of \$3.1 million net of other related fees of \$1.8 million in general and administrative expense in our condensed consolidated statements of operations.

During the three months ended April 30, 2020, our net cost for operating leases was \$19.6 million and primarily consisted of operating lease costs of \$17.1 million, in addition to variable lease costs, short-term lease costs, and sublease income. During the nine months ended April 30, 2020, our net cost for operating leases was \$53.1 million and primarily consisted of operating lease costs of \$46.3 million, in addition to variable lease costs, short-term lease costs and sublease income.

The following tables present additional information for our operating leases (in millions, except for years and percentages):

	Nine Months Ended April 30, 2020
Operating cash flows used in payments of operating lease liabilities	\$ 50.3
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 21.0
	April 30, 2020
Weighted-average remaining lease term	7.2 years
Weighted-average discount rate	3.9 %

The following table presents maturities of operating lease liabilities as of April 30, 2020 (in millions):

	Amount
Fiscal years ending July 31:	
Remaining 2020	\$ 15.0
2021	73.9
2022	67.0
2023	61.2
2024	50.5
2025 and thereafter	195.9
Total operating lease payments	463.5
Less: imputed interest	61.6
Present value of operating lease liabilities	\$ 401.9
Current portion of operating lease liabilities ⁽¹⁾	\$ 57.3
Long-term operating lease liabilities	\$ 344.6

(1) Current portion of operating lease liabilities is included in accrued and other liabilities on our condensed consolidated balance sheet.

Operating lease liabilities above do not include sublease income. As of April 30, 2020, we expect to receive sublease income of approximately \$5.1 million, which consists of \$1.3 million to be received for the remainder of fiscal 2020 and \$3.8 million to be received in fiscal 2021.

During the three months ended April 30, 2020, we purchased 5.8 acres of land in Santa Clara, California for \$51.7 million to accommodate future expansion of our headquarters. This amount was recorded in property and equipment, net on our condensed consolidated balance sheets as of April 30, 2020.

11. Commitments and Contingencies

Purchase Commitments

Manufacturing Purchase Commitments

Our electronics manufacturing service provider (“EMS provider”) procures components and assembles our products based on our forecasts. These forecasts are based on estimates of demand for our products primarily for the next 12 months, which are in turn based on historical trends and an analysis from our sales and product management organizations, adjusted for overall market conditions. In order to reduce manufacturing lead times and plan for adequate supply, we may issue non-cancelable orders for products and components to our manufacturing partners or component suppliers. As of April 30, 2020, our purchase commitments under such orders were \$124.3 million excluding obligations under contracts that we can cancel without a significant penalty.

Other Purchase Commitments

We have entered into various non-cancelable agreements with third-party providers for our use of certain cloud and other services, under which we are committed to minimum or fixed purchases through the year ending July 31, 2026. The following table presents details of the aggregate future non-cancelable purchase commitments under these agreements as of April 30, 2020 (in millions):

	Amount
Fiscal years ending July 31:	
Remaining 2020	\$ 1.7
2021	11.7
2022	49.8
2023	58.5
2024	67.5
2025 and thereafter	97.5
Total other purchase commitments	\$ 286.7

Mutual Covenant Not to Sue and Release Agreement

In January 2020, we executed a Mutual Covenant Not to Sue and Release Agreement for \$50.0 million, to extend an existing covenant not to sue for seven years. As the primary benefit of the arrangement was attributable to future use, the amount was recorded in other assets on our condensed consolidated balance sheets and is amortized to cost of product revenue in our condensed consolidated statements of operations over the estimated period of benefit of seven years. This amount was paid in the three months ended April 30, 2020.

Litigation

We are subject to legal proceedings, claims, and litigation arising in the ordinary course of business, including intellectual property litigation. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. We accrue for contingencies when we believe that a loss is probable and that we can reasonably estimate the amount of any such loss.

To the extent there is a reasonable possibility that a loss exceeding amounts already recognized may be incurred and the amount of such additional loss would be material, we will either disclose the estimated additional loss or state that such an estimate cannot be made. As of April 30, 2020, we have not recorded any significant accruals for loss contingencies associated with such legal proceedings, determined that an unfavorable outcome is probable or reasonably possible, or determined that the amount or range of any possible loss is reasonably estimable.

12. Stockholders' Equity

Share Repurchase Program

In February 2019, our board of directors authorized a \$1.0 billion share repurchase program which is funded from available working capital. Repurchases may be made at management's discretion from time to time on the open market, through privately negotiated transactions, transactions structured through investment banking institutions, block purchase techniques, 10b5-1 trading plans, or a combination of the foregoing. This repurchase authorization will expire on December 31, 2020 and may be suspended or discontinued at any time.

During the nine months ended April 30, 2020, we repurchased and retired 0.9 million shares of our common stock under the authorization for an aggregate purchase price of \$198.1 million, including transaction costs. The total price of the shares repurchased and related transaction costs are reflected as a reduction to common stock and additional paid-in capital on our condensed consolidated balance sheets. As of April 30, 2020, \$801.9 million remained available for future share repurchases under our current repurchase authorization.

Accelerated Stock Repurchase

In February 2020, our board of directors approved the repurchase of \$1.0 billion of our common stock through an accelerated share repurchase ("ASR") transaction with a financial institution. This ASR transaction is in addition to our share repurchase program.

During the three months ended April 30, 2020, we made an up-front payment of \$1.0 billion pursuant to the ASR to receive an initial delivery of approximately 80% of the common stock, or 4.2 million shares valued at \$800.0 million. The final number of shares to be repurchased under the ASR will be based generally upon the volume weighted average price of our common stock during the repurchase period, which is expected to be completed in our fourth quarter of fiscal 2020. The shares received by us were retired and the upfront payment was accounted for as a reduction to stockholders' equity of \$1.0 billion in our condensed consolidated statements of stockholders' equity for the three and nine months ended April 30, 2020.

13. Equity Award Plans

Assumed Share-based Compensation Plans

CloudGenix Inc. Stock Incentive Plan

In connection with our acquisition of CloudGenix in April 2020, we assumed CloudGenix's 2013 Equity Incentive Plan (the "CloudGenix Plan"), under which the assumed CloudGenix equity awards were granted. The assumed equity awards will be settled in shares of our common stock and will retain the terms and conditions under which they were originally granted; forfeited awards will not be returned to the CloudGenix Plan. No additional equity awards will be granted under the CloudGenix Plan. Refer to Note 6. Acquisitions for more information on the CloudGenix acquisition and the related equity awards assumed.

Aporeto Inc. Stock Incentive Plan

In connection with our acquisition of Aporeto in December 2019, we assumed Aporeto's 2015 Stock Option and Grant Plan, as amended and restated (the "Aporeto Plan"), under which the assumed Aporeto equity awards were granted. The assumed equity awards will be settled in shares of our common stock and will retain the terms and conditions under which they were originally

granted; forfeited awards will not be returned to the Aporeto Plan. No additional equity awards will be granted under the Aporeto Plan. Refer to Note 6. Acquisitions for more information on the Aporeto acquisition and the related equity awards assumed.

Zingbox, Inc. Stock Incentive Plan

In connection with our acquisition of Zingbox in September 2019, we assumed Zingbox’s Stock Incentive Plan, as amended and restated (the “Zingbox Plan”), under which the assumed Zingbox equity awards were granted. The assumed equity awards will be settled in shares of our common stock and will retain the terms and conditions under which they were originally granted; forfeited awards will not be returned to the Zingbox Plan. No additional equity awards will be granted under the Zingbox Plan. Refer to Note 6. Acquisitions for more information on the Zingbox acquisition and the related equity awards assumed.

Stock Option Activities

The following table summarizes the stock option and performance stock option (“PSO”) activity under our stock plans during the reporting period (in millions, except per share amounts):

	Stock Options Outstanding				PSOs Outstanding			
	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance—July 31, 2019	0.3	\$ 14.53	2.2	\$ 81.4	3.7	\$ 193.99	6.2	\$ 120.1
Exercised	(0.1)	\$ 11.66			—	\$ —		
Forfeited	—	\$ —			(0.8)	\$ 193.51		
Balance—April 30, 2020	0.2	\$ 17.57	1.7	\$ 33.3	2.9	\$ 194.11	5.5	\$ 9.4
Exercisable—April 30, 2020	0.2	\$ 17.57	1.7	\$ 33.3	2.9	\$ 194.11	5.5	\$ 9.4

Restricted Stock Award (“RSA”), Performance-Based Stock Award (“PSA”), Restricted Stock Unit (“RSU”), and Performance-Based Stock Unit (“PSU”) Activities

The following table summarizes the RSA and PSA activity under our stock plans during the reporting period (in millions, except per share amounts):

	RSAs Outstanding		PSAs Outstanding	
	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share
Balance—July 31, 2019	0.0	\$ 148.54	0.1	\$ 148.54
Vested	0.0	\$ 148.54	0.0	\$ 148.54
Balance—April 30, 2020	0.0	\$ 148.54	0.1	\$ 148.54

The following table summarizes the RSU and PSU activity under our stock plans during the reporting period (in millions, except per share amounts):

	RSUs Outstanding				PSUs Outstanding			
	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance—July 31, 2019	6.9	\$ 188.16	1.5	\$ 1,554.0	0.3	\$ 197.86	1.8	\$ 67.0
Granted	3.1	\$ 208.19			—	\$ —		
Vested	(2.0)	\$ 178.93			0.0	\$ 168.17		
Forfeited	(0.9)	\$ 185.56			(0.1)	\$ 181.48		
Balance—April 30, 2020	7.1	\$ 199.76	1.5	\$ 1,400.7	0.2	\$ 202.99	1.3	\$ 42.1

Our PSAs and PSUs generally vest over a period of three to four years from the date of grant. The actual number of PSAs and PSUs earned and eligible to vest is determined based on level of achievement against pre-established billings or revenue growth targets for the fiscal year. We recognize share-based compensation expense for our PSAs and PSUs on a straight-line basis over the requisite service period for each separately vesting portion of the award when it is probable that the performance condition will be achieved.

Share-Based Compensation

The following table summarizes share-based compensation included in costs and expenses (in millions):

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Cost of product revenue	\$ 1.4	\$ 1.3	\$ 4.2	\$ 4.3
Cost of subscription and support revenue	18.8	17.2	57.6	52.9
Research and development	67.7	45.1	197.4	129.6
Sales and marketing	55.5	54.5	155.0	169.2
General and administrative	22.7	20.1	76.0	75.7
Total share-based compensation	\$ 166.1	\$ 138.2	\$ 490.2	\$ 431.7

During the three and nine months ended April 30, 2020, we accelerated the vesting of certain equity awards in connection with our acquisitions, as a result, we recorded \$0.3 million and \$6.0 million, respectively, of share-based compensation within general and administrative expense.

As of April 30, 2020, total compensation cost related to unvested share-based awards not yet recognized was \$1.6 billion. This cost is expected to be amortized over a weighted-average period of approximately 2.6 years. Future grants will increase the amount of compensation expense to be recorded in these periods.

14. Income Taxes

For the three and nine months ended April 30, 2020 our provision for income taxes reflects an effective tax rate of negative 10.3% and negative 13.5% respectively. Our effective tax rate for the nine months ended April 30, 2020 was negative as we recorded a provision for income taxes on year to date losses. The provision for income taxes for the nine months ended April 30, 2020 is primarily due to income taxes in profitable foreign jurisdictions, U.S. state taxes, and withholding taxes. Our effective tax rates differ from the U.S. statutory tax rate primarily due to deductibility of our share-based compensation, foreign income at other than U.S. tax rates, and changes in our valuation allowance.

In December 2019, we transferred certain intellectual property rights to a wholly owned United Kingdom subsidiary, primarily to align our legal structure to our evolving operations. This resulted in an increase in the tax basis of these intellectual property rights and a corresponding increase in foreign deferred tax assets. As of April 30, 2019, it is not more likely than not that these additional deferred tax assets will be realizable, and therefore, are offset by a full valuation allowance. This resulted in no net impact to our condensed consolidated financial statements.

Our provision for income taxes for the three and nine months ended April 30, 2019 reflects an effective tax rate of 4.3% and negative 0.3%, respectively. Our effective tax rate for the nine months ended April 30, 2019 was negative as we recorded a provision for income taxes on year to date losses. The key components of our income tax provision, excluding one-time items, primarily consisted of foreign and U.S. state income taxes and withholding taxes. During the nine months ended April 30, 2019, the effect of these key components was partially offset by a one-time tax benefit of \$9.4 million and \$4.9 million from partial releases of our valuation allowance related to the acquisitions of RedLock, Inc. and Demisto, Inc., recorded during the three months ended October 31, 2018 and April 30, 2019, respectively. Our effective tax rate differed from the U.S. statutory tax rate primarily due to deductibility of our share-based compensation, foreign income at other than U.S. tax rates, and changes in our valuation allowance.

15. Net Loss Per Share

Basic net loss per share is computed by dividing net loss by basic weighted-average shares outstanding during the period. Diluted net loss per share is computed by dividing net loss by diluted weighted-average shares outstanding, including potentially dilutive securities.

The following table presents the computation of basic and diluted net loss per share of common stock (in millions, except per share data):

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Net loss	\$ (74.8)	\$ (20.2)	\$ (208.1)	\$ (61.1)
Weighted-average shares used to compute net loss per share, basic and diluted	96.7	94.4	97.2	94.1
Net loss per share, basic and diluted	\$ (0.77)	\$ (0.21)	\$ (2.14)	\$ (0.65)

The following securities were excluded from the computation of diluted net loss per share of common stock for the periods presented as their effect would have been antidilutive (in millions):

	Three and Nine Months Ended April 30,	
	2020	2019
Convertible senior notes	6.4	7.8
Warrants related to the issuance of convertible senior notes	6.4	11.6
RSUs and PSUs	7.3	7.0
Options to purchase common stock, including PSOs	3.1	4.2
RSAs and PSAs	0.1	0.1
ESPP shares	0.1	0.1
Total	23.4	30.8

16. Other Income, Net

The following table sets forth the components of other income, net (in millions):

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
Interest income	\$ 8.3	\$ 18.3	\$ 38.0	\$ 51.7
Foreign currency exchange gains (losses), net	0.2	(0.1)	(1.8)	(1.3)
Other	(0.4)	—	(1.1)	(3.2)
Total other income, net	\$ 8.1	\$ 18.2	\$ 35.1	\$ 47.2

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q. The following discussion and analysis contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, among other things: expectations regarding drivers of and factors affecting growth in our business; the performance advantages of our products and subscription and support offerings and the potential benefits to our customers; statements regarding trends in billings, our mix of product and subscription and support revenue, cost of revenue, gross margin, cash flows, operating expenses, including future share-based compensation expense, income taxes, investment plans and liquidity; expectations regarding our revenues, including the seasonality and cyclicity from quarter to quarter; expectations and intentions with respect to the products and technologies that we acquire and introduce on our current and future offerings; our strategy of acquiring complementary businesses and our ability to successfully integrate acquired businesses and technologies; expected impact of the adoption of certain recent accounting pronouncements and the anticipated timing of adopting such standards; expected recurring revenues resulting from expected growth in our installed base and increased adoption of our products and cloud-based subscription services; the sufficiency of our existing cash and investments to meet our cash needs for the foreseeable future; the timing and amount of sublease income, capital expenditures and share repurchases, including expected timing of an accelerated share repurchase transaction; expectations regarding the potential impacts of the outbreak of the coronavirus disease 2019 ("COVID-19") and related public health measures on our business, the business of our customers, suppliers and channel partners and the economy; and other statements regarding our future operations, financial condition and prospects, and business strategies. Forward-looking statements generally can be identified by words such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "predicts," "projects," "would," "will be," "will continue," "will likely result," and similar expressions. These forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties, which could cause our actual results to differ materially from those anticipated or implied by any forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Quarterly Report on Form 10-Q, and in particular, the risks discussed under the caption "Risk Factors" in Part II, Item 1A of this report and those discussed in other documents we file with the Securities and Exchange Commission ("SEC"). We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is organized as follows:

- **Overview.** A discussion of our business and overall analysis of financial and other highlights in order to provide context for the remainder of MD&A.
- **Key Financial Metrics.** A summary of our generally accepted accounting principles ("GAAP") and non-GAAP key financial metrics, which management monitors to evaluate our performance.
- **Results of Operations.** A discussion of the nature and trends in our financial results and an analysis of our financial results comparing the three and nine months ended April 30, 2020 to the three and nine months ended April 30, 2019.
- **Liquidity and Capital Resources.** An analysis of changes in our balance sheets and cash flows, and a discussion of our financial condition and our ability to meet cash needs.
- **Critical Accounting Estimates.** A discussion of our accounting policies that require critical estimates, assumptions, and judgments.
- **Recent Accounting Pronouncements.** A discussion of expected impacts of impending accounting changes on financial information to be reported in the future.

Overview

We have pioneered the next generation of security through our innovative platforms that empower enterprises, service providers, and government entities to secure their organizations by safely enabling applications and data running in their networks, on their endpoints, and in the cloud, and by preventing breaches that stem from targeted cyberattacks. Our platforms use an innovative traffic classification engine that identifies network traffic by application, user, and content and provides consistent security across the network, endpoint, and cloud. Accordingly, our platforms enable our end-customers to pursue transformative digital initiatives, like public cloud and mobility, that grow their business, while maintaining the visibility and control needed to protect their valued data and critical control systems. We believe the architecture of our platforms offers superior performance compared to legacy approaches and reduces the total cost of ownership for organizations by simplifying their security operations and infrastructure and eliminating the need for multiple, stand-alone hardware and software security products, and consists of three primary areas of security capabilities.

Secure the Enterprise:

- Secure the network through our Next-Generation Firewalls, available as physical appliances, virtual appliances called VM-Series, or a cloud-delivered service called Prisma Access (*formerly GlobalProtect cloud service*), Panorama management delivered as an appliance or as a virtual machine for the public or private cloud, and Zingbox IoT Guardian for Internet of Things (“IoT”) security. This also includes security services such as WildFire, Threat Prevention, URL Filtering, GlobalProtect, DNS Security and SD-WAN that are delivered as SaaS subscriptions to our Next-Generation Firewalls. In addition, CloudGenix SD-WAN remains available as a combination of physical, virtual and cloud-delivered appliances and services.

Secure the Cloud:

- Secure the cloud through our Prisma security offerings, such as Prisma Cloud (*formerly RedLock, Twistlock and PureSec*) with comprehensive security and compliance coverage for cloud native applications, data and the full cloud native technology stack, throughout the full development lifecycle and across multi- and hybrid- cloud environments, Prisma SaaS (*formerly Aperture*) for protecting SaaS applications and VM-Series for in-line network security in multi- and hybrid- cloud environments.

Secure the Future:

- Secure the future of security operations through Cortex, which includes Cortex XDR for prevention, detection and response (*one unified product that was formerly Cortex XDR and Traps*), Cortex SOAR (*formerly Demisto*) for security orchestration, automation and response (“SOAR”), AutoFocus for threat intelligence, and Cortex Data Lake to collect and integrate security data for analytics. These products are delivered as software or SaaS subscriptions.

For the third quarter of fiscal 2020 and 2019, total revenue was \$869.4 million and \$726.6 million, respectively, representing year-over-year growth of 19.7%. Our growth reflected the increased adoption of our hybrid SaaS revenue model, which consists of product, subscriptions, and support. We believe this model will enable us to benefit from recurring revenues as we continue to grow our installed end-customer base. As of April 30, 2020, we had end-customers in more than 150 countries. Our end-customers represent a broad range of industries, including education, energy, financial services, government entities, healthcare, Internet and media, manufacturing, public sector, and telecommunications, and include some of the largest Fortune 100 and Global 2000 companies in the world. We maintain a field sales force that works closely with our channel partners in developing sales opportunities. We use a two-tiered, indirect fulfillment model whereby we sell our products, subscriptions, and support to our distributors, which, in turn, sell to our resellers, which then sell to our end-customers.

Our product revenue was \$280.9 million, or 32.3% of total revenue, for the third quarter of fiscal 2020, representing a year-over-year growth of 0.9%. Product revenue is generated from sales of our appliances, primarily our Next-Generation Firewall, which is available in physical and virtualized form. Our Next-Generation Firewall incorporates our proprietary PAN-OS operating system, which provides a consistent set of capabilities across our entire product line. Our products are designed for different performance requirements throughout an organization, ranging from our PA-220, which is designed for small organizations and remote or branch offices, to our top-of-the-line PA-7080, which is especially suited for very large enterprise deployments and service provider customers. The same firewall functionality that is delivered in our physical appliances is also available in our VM-Series virtual firewalls, which secure virtualized and cloud-based computing environments.

Our subscription and support revenue grew to \$588.5 million, or 67.7% of total revenue, for the third quarter of fiscal 2020, representing a year-over-year growth of 31.3%. Our subscriptions provide our end-customers with real-time access to the latest antivirus, intrusion prevention, web filtering, and modern malware prevention capabilities across the network, endpoints, and the cloud. When end-customers purchase our physical or virtual firewall appliances, they typically purchase support in order to receive ongoing security updates, upgrades, bug fixes, and repairs. In addition to the subscriptions purchased with these appliances, end-customers may also purchase other subscriptions on a per-user, per-endpoint, or capacity-based basis.

We continue to invest in innovation as we evolve and further extend the capabilities of our platforms, as we believe that innovation and timely development of new features and products is essential to meeting the needs of our end-customers and improving our competitive position. For example, in April 2020, we acquired CloudGenix Inc. (“CloudGenix”), which we believe will strengthen our secure access service edge (“SASE”) platform.

In general, we believe that the growth of our business and our short-term and long-term success are dependent upon many factors, including our ability to extend our technology leadership, grow our base of end-customers, expand deployment of our platforms and support offerings within existing end-customers, and focus on end-customer satisfaction. To manage any future growth effectively, we must continue to improve and expand our information technology and financial infrastructure, our operating and administrative systems and controls, and our ability to manage headcount, capital, and processes in an efficient manner. While these areas present significant opportunities for us, they also pose challenges and risks that we must successfully address in order to sustain the growth of our business and improve our operating results. For additional information regarding the challenges and risks we face, see the “Risk Factors” section in Part II, Item 1A of this Quarterly Report on Form 10-Q.

COVID-19 Update

We are actively monitoring, evaluating and responding to developments relating to COVID-19, which is expected to result in significant global social and business disruption. While we instituted a global work-from-home policy beginning in March 2020, we did not incur significant disruptions in our work operations during the third quarter of fiscal 2020. We are trying to conduct business as usual with restrictions to employee travel, cancellation of in-person marketing events, and a hiring slowdown, among other modifications. These changes will substantially remain in effect in the fourth quarter of fiscal 2020 and could extend into future quarters. We will continue to actively monitor the situation and will make further changes that alter our business operations as may be required by federal, state or local authorities or that we determine are in the best interests of our employees, customers, partners, suppliers and stockholders.

COVID-19 may curtail our customers' spending and could lead them to delay or defer purchasing decisions, and lengthen sales cycles and payment terms, which could materially adversely impact our business, results of operations and overall financial performance. Also, certain of our customers or partners may be or may become credit or cash constrained making it difficult for them to fulfill their payment obligations to us. The extent of the impact of COVID-19 on our operational and financial performance will depend on developments, including the duration and spread of the virus, impact on our customers cash constraints, volume of sales and length of our sales cycles, impact on our partners, suppliers and employees, actions that may be taken by governmental authorities and other factors identified in Part II, Item 1A "Risk Factors" in this Form 10-Q. Given the dynamic nature of these circumstances, the full impact of COVID-19 on our ongoing business, results of operations and overall financial performance cannot be reasonably estimated at this time.

Key Financial Metrics

We monitor the key financial metrics set forth in the tables below to help us evaluate growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts, and assess operational efficiencies. We discuss revenue, gross margin, and the components of operating loss and margin below under "—Results of Operations."

	April 30, 2020		July 31, 2019	
	(in millions)			
Total deferred revenue	\$	3,370.6	\$	2,888.7
Cash, cash equivalents, and investments	\$	2,190.0	\$	3,378.5

	Three Months Ended April 30,		Nine Months Ended April 30,					
	2020	2019	2020	2019				
	(dollars in millions)							
Total revenue	\$	869.4	\$	726.6	\$	2,458.0	\$	2,093.8
Total revenue year-over-year percentage increase		19.7 %		28.0 %		17.4 %		29.6 %
Gross margin		70.3 %		71.8 %		71.2 %		71.8 %
Operating loss	\$	(56.5)	\$	(18.7)	\$	(161.2)	\$	(44.2)
Operating margin		(6.5)%		(2.6)%		(6.6)%		(2.1)%
Billings	\$	1,015.4	\$	821.9	\$	2,911.7	\$	2,432.9
Billings year-over-year percentage increase		23.5 %		13.4 %		19.7 %		22.1 %
Cash flow provided by operating activities					\$	702.0	\$	824.1
Free cash flow (non-GAAP)					\$	519.4	\$	746.0

- **Deferred Revenue.** Our deferred revenue primarily consists of amounts that have been invoiced but have not been recognized as revenue as of the period end. The majority of our deferred revenue balance consists of subscription and support revenue that is recognized ratably over the contractual service period. We monitor our deferred revenue balance because it represents a significant portion of revenue to be recognized in future periods.
- **Billings.** We define billings as total revenue plus the change in total deferred revenue, net of acquired deferred revenue, during the period. We consider billings to be a key metric used by management to manage our business given our hybrid SaaS revenue model, and believe billings provides investors with an important indicator of the health and visibility of our business because it includes subscription and support revenue, which is recognized ratably over the contractual service period, and product revenue, which is recognized at the time of shipment, provided that all other conditions for revenue recognition have been met. We consider billings to be a useful metric for management and investors, particularly if we continue to experience increased sales of subscriptions and strong renewal rates for subscription and support offerings,

and as we monitor our near-term cash flows. While we believe that billings provides useful information to investors and others in understanding and evaluating our operating results in the same manner as our management, it is important to note that other companies, including companies in our industry, may not use billings, may calculate billings differently, may have different billing frequencies, or may use other financial measures to evaluate their performance, all of which could reduce the usefulness of billings as a comparative measure. We calculate billings in the following manner:

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
	(in millions)		(in millions)	
Billings:				
Total revenue	\$ 869.4	\$ 726.6	\$ 2,458.0	\$ 2,093.8
Add: change in total deferred revenue, net of acquired deferred revenue	146.0	95.3	453.7	339.1
Billings	\$ 1,015.4	\$ 821.9	\$ 2,911.7	\$ 2,432.9

- **Cash Flow Provided by Operating Activities.** We monitor cash flow provided by operating activities as a measure of our overall business performance. Our cash flow provided by operating activities is driven in large part by sales of our products and from up-front payments for subscription and support offerings. Monitoring cash flow provided by operating activities enables us to analyze our financial performance without the non-cash effects of certain items such as depreciation, amortization, and share-based compensation costs, thereby allowing us to better understand and manage the cash needs of our business.
- **Free Cash Flow (non-GAAP).** We define free cash flow, a non-GAAP financial measure, as cash provided by operating activities less purchases of property, equipment, and other assets. We consider free cash flow to be a profitability and liquidity measure that provides useful information to management and investors about the amount of cash generated by the business after necessary capital expenditures. A limitation of the utility of free cash flow as a measure of our financial performance and liquidity is that it does not represent the total increase or decrease in our cash balance for the period. In addition, it is important to note that other companies, including companies in our industry, may not use free cash flow, may calculate free cash flow in a different manner than we do, or may use other financial measures to evaluate their performance, all of which could reduce the usefulness of free cash flow as a comparative measure. A reconciliation of free cash flow to cash flow provided by operating activities, the most directly comparable financial measure calculated and presented in accordance with GAAP, is provided below:

	Nine Months Ended April 30,	
	2020	2019
	(in millions)	
Free cash flow (non-GAAP):		
Net cash provided by operating activities	\$ 702.0	\$ 824.1
Less: purchases of property, equipment, and other assets	182.6	78.1
Free cash flow (non-GAAP)	\$ 519.4	\$ 746.0
Net cash provided by (used in) investing activities	\$ 955.6	\$ (1,377.2)
Net cash used in financing activities	\$ (1,132.5)	\$ (637.8)

Results of Operations

The following table summarizes our results of operations for the periods presented and as a percentage of our total revenue for those periods based on our condensed consolidated statements of operations data. The period to period comparison of results is not necessarily indicative of results for future periods.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue
(dollars in millions)								
Revenue:								
Product	\$ 280.9	32.3 %	\$ 278.4	38.3 %	\$ 758.6	30.9 %	\$ 790.5	37.8 %
Subscription and support	588.5	67.7 %	448.2	61.7 %	1,699.4	69.1 %	1,303.3	62.2 %
Total revenue	869.4	100.0 %	726.6	100.0 %	2,458.0	100.0 %	2,093.8	100.0 %
Cost of revenue:								
Product	73.3	8.4 %	78.0	10.7 %	207.1	8.4 %	233.7	11.2 %
Subscription and support	185.0	21.3 %	126.9	17.5 %	502.0	20.4 %	357.3	17.0 %
Total cost of revenue ⁽¹⁾	258.3	29.7 %	204.9	28.2 %	709.1	28.8 %	591.0	28.2 %
Total gross profit	611.1	70.3 %	521.7	71.8 %	1,748.9	71.2 %	1,502.8	71.8 %
Operating expenses:								
Research and development	196.3	22.6 %	139.1	19.1 %	552.2	22.5 %	380.8	18.2 %
Sales and marketing	388.4	44.7 %	339.0	46.7 %	1,129.0	46.0 %	973.6	46.5 %
General and administrative	82.9	9.5 %	62.3	8.6 %	228.9	9.3 %	192.6	9.2 %
Total operating expenses ⁽¹⁾	667.6	76.8 %	540.4	74.4 %	1,910.1	77.8 %	1,547.0	73.9 %
Operating loss	(56.5)	(6.5)%	(18.7)	(2.6)%	(161.2)	(6.6)%	(44.2)	(2.1)%
Interest expense	(19.4)	(2.2)%	(20.6)	(2.8)%	(57.3)	(2.3)%	(63.9)	(3.1)%
Other income, net	8.1	0.9 %	18.2	2.5 %	35.1	1.4 %	47.2	2.3 %
Loss before income taxes	(67.8)	(7.8)%	(21.1)	(2.9)%	(183.4)	(7.5)%	(60.9)	(2.9)%
Provision for (benefit from) income taxes	7.0	0.8 %	(0.9)	(0.1)%	24.7	1.0 %	0.2	— %
Net loss	\$ (74.8)	(8.6)%	\$ (20.2)	(2.8)%	\$ (208.1)	(8.5)%	\$ (61.1)	(2.9)%

(1) Includes share-based compensation as follows:

	Three Months Ended April 30,		Nine Months Ended April 30,	
	2020	2019	2020	2019
	(in millions)			
Cost of product revenue	\$ 1.4	\$ 1.3	\$ 4.2	\$ 4.3
Cost of subscription and support revenue	18.8	17.2	57.6	52.9
Research and development	67.7	45.1	197.4	129.6
Sales and marketing	55.5	54.5	155.0	169.2
General and administrative	22.7	20.1	76.0	75.7
Total share-based compensation	\$ 166.1	\$ 138.2	\$ 490.2	\$ 431.7

Revenue

Our revenue consists of product revenue and subscription and support revenue. Revenue is recognized upon transfer of control of the corresponding promised products and subscriptions and support to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those products and subscriptions and support. We expect our revenue to vary from quarter to quarter based on seasonal and cyclical factors.

Product Revenue

Product revenue is derived primarily from sales of our appliances. Product revenue also includes revenue derived from software licenses of Panorama and the VM-Series. Our appliances and software licenses include a broad set of built-in networking and security features and functionalities. We generally recognize product revenue at the time of hardware shipment or delivery of software licenses.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020	2019	Change		2020	2019	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Product	\$ 280.9	\$ 278.4	\$ 2.5	0.9 %	\$ 758.6	\$ 790.5	\$ (31.9)	(4.0) %

Product revenue was relatively flat for the three months ended April 30, 2020 compared to the three months ended April 30, 2019. Product revenue decreased in the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019 primarily due to product mix, partially offset by an increase in product unit volume. The change in product revenue due to pricing was not significant for either period.

Subscription and Support Revenue

Subscription and support revenue is derived primarily from sales of our subscription and support offerings. Our contractual subscription and support contracts are typically one to five years. We recognize revenue from subscriptions and support over time as the services are performed. As a percentage of total revenue, we expect our subscription and support revenue to vary from quarter to quarter and increase over the long term as we introduce new subscriptions, renew existing subscription and support contracts, and expand our installed end-customer base.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020	2019	Change		2020	2019	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Subscription	\$ 354.3	\$ 258.8	\$ 95.5	36.9 %	\$ 1,015.5	\$ 739.8	\$ 275.7	37.3 %
Support	234.2	189.4	44.8	23.7 %	683.9	563.5	120.4	21.4 %
Total subscription and support	\$ 588.5	\$ 448.2	\$ 140.3	31.3 %	\$ 1,699.4	\$ 1,303.3	\$ 396.1	30.4 %

Subscription and support revenue increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The increase in both periods was due to increased demand for our subscription and support offerings from both new and existing end-customers. The mix between subscription revenue and support revenue will fluctuate over time, depending on the introduction of new subscription offerings, renewals of support services, and our ability to increase sales to new and existing end customers. The change in subscription and support revenue due to changes in pricing was not significant for either period.

Revenue by Geographic Theater

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020	2019	Change		2020	2019	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Americas	\$ 594.2	\$ 497.8	\$ 96.4	19.4 %	\$ 1,668.5	\$ 1,423.0	\$ 245.5	17.3 %
EMEA	171.5	138.7	32.8	23.6 %	485.3	414.7	70.6	17.0 %
APAC	103.7	90.1	13.6	15.1 %	304.2	256.1	48.1	18.8 %
Total revenue	\$ 869.4	\$ 726.6	\$ 142.8	19.7 %	\$ 2,458.0	\$ 2,093.8	\$ 364.2	17.4 %

With respect to geographic theaters, the Americas contributed the largest portion of the increase in revenue for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019, due to its larger and more established sales force compared to our other theaters. Revenue from both Europe, the Middle East, and Africa (“EMEA”) and Asia Pacific and Japan (“APAC”) increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019, due to our investment in increasing the size of our sales force in these theaters.

Cost of Revenue

Our cost of revenue consists of cost of product revenue and cost of subscription and support revenue.

Cost of Product Revenue

Cost of product revenue primarily includes costs paid to our manufacturing partners. Our cost of product revenue also includes personnel costs, which consist of salaries, benefits, bonuses, share-based compensation, and travel and entertainment associated with our operations organization, amortization of intellectual property licenses, product testing costs, shipping and tariff costs, and allocated costs. Allocated costs consist of certain facilities, depreciation, benefits, recruiting, and information technology costs that we allocate based on headcount. We expect our cost of product revenue to fluctuate with our product revenue.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Cost of product revenue	\$ 73.3	\$ 78.0	\$ (4.7)	(6.0)%	\$ 207.1	\$ 233.7	\$ (26.6)	(11.4)%
Number of employees at period end	118	99	19	19.2 %	118	99	19	19.2 %

Cost of product revenue decreased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The decrease for the three and nine months ended April 30, 2020 was primarily due to reductions in costs of materials and lower amortization of intellectual property licenses.

Cost of Subscription and Support Revenue

Cost of subscription and support revenue includes personnel costs for our global customer support and technical operations organizations, customer support and repair costs, third-party professional services costs, data center and cloud hosting costs, amortization of acquired intangible assets and capitalized software development costs, and allocated costs. We expect our cost of subscription and support revenue to increase as our installed end-customer base grows and adoption of our cloud-based subscription offerings increases.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Cost of subscription and support revenue	\$ 185.0	\$ 126.9	\$ 58.1	45.8 %	\$ 502.0	\$ 357.3	\$ 144.7	40.5 %
Number of employees at period end	1,403	1,114	289	25.9 %	1,403	1,114	289	25.9 %

Cost of subscription and support revenue increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The increase in both periods was primarily due to increased costs to support the growth of our subscription and support offerings. Cloud hosting costs to support the adoption of our cloud-based subscription offerings increased \$25.6 million for the three months ended April 30, 2020 compared to the three months ended April 30, 2019, and increased \$53.4 million for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019. Personnel costs grew \$15.5 million to \$81.5 million for the three months ended April 30, 2020 compared to the three months ended April 30, 2019, and grew \$47.3 million to \$234.9 million for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019 primarily due to headcount growth. The remaining increase was primarily due to amortization of purchased intangible assets, which increased \$6.7 million for the three months ended April 30, 2020 compared to the three months ended April 30, 2019 and increased \$21.8 million for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019, as a result of our recent acquisitions.

Gross Margin

Gross margin, or gross profit as a percentage of revenue, has been and will continue to be affected by a variety of factors, including the introduction of new products, manufacturing costs, tariff costs, the average sales price of our products, the mix of products sold, and the mix of revenue between product and subscription and support offerings. For sales of our products, our higher-end firewall products generally have higher gross margins than our lower-end firewall products within each product series. We expect our gross margins to fluctuate over time depending on the factors described above.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin
	(dollars in millions)							
Product	\$ 207.6	73.9 %	\$ 200.4	72.0 %	\$ 551.5	72.7 %	\$ 556.8	70.4 %
Subscription and support	403.5	68.6 %	321.3	71.7 %	1,197.4	70.5 %	946.0	72.6 %
Total gross profit	\$ 611.1	70.3 %	\$ 521.7	71.8 %	\$ 1,748.9	71.2 %	\$ 1,502.8	71.8 %

Product gross margin increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019, primarily due to reductions in costs of materials.

Subscription and support gross margin decreased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019, primarily due to an increase in costs to support the adoption of our cloud-based subscription offerings and higher amortization of purchased intangibles as a result of our recent acquisitions, partially offset by increased leverage of our global customer support organization.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expense. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, share-based compensation, travel and entertainment, and with regard to sales and marketing expense, sales commissions. Our operating expenses also include allocated costs, which consist of certain facilities, depreciation, benefits, recruiting, and information technology costs that we allocate based on headcount. We expect operating expenses generally to increase in absolute dollars and decrease over the long term as a percentage of revenue as we continue to scale our business. In response to COVID-19, we instituted a global work-from-home policy and limited employee travel beginning in March 2020. Further, we have canceled in-person events and either replaced them with virtual events or postponed them to future periods. Although we did not conduct any employee layoffs related to COVID-19, we slowed hiring in our third quarter of fiscal 2020. As of April 30, 2020, we expect to recognize approximately \$1.6 billion of share-based compensation expense over a weighted-average period of approximately 2.6 years, excluding additional share-based compensation expense related to any future grants of share-based awards. Share-based compensation expense is generally recognized on a straight-line basis over the requisite service periods of the awards.

Research and Development

Research and development expense consists primarily of personnel costs. Research and development expense also includes prototype related expenses and allocated costs. We expect research and development expense to increase in absolute dollars as we continue to invest in our future products and services, although our research and development expense may fluctuate as a percentage of total revenue.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020	2019	Change		2020	2019	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Research and development	\$ 196.3	\$ 139.1	\$ 57.2	41.1 %	\$ 552.2	\$ 380.8	\$ 171.4	45.0 %
Number of employees at period end	1,789	1,336	453	33.9 %	1,789	1,336	453	33.9 %

Research and development expense increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The increase was primarily due to personnel costs, which grew \$48.7 million to \$152.3 million for the three months ended April 30, 2020 compared to the three months ended April 30, 2019, and grew \$140.3 million to \$429.2 million for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019. The increase in personnel costs in both periods was primarily due to headcount growth. The remaining increase in both periods was primarily driven by an increase in allocated costs.

Sales and Marketing

Sales and marketing expense consists primarily of personnel costs, including commission expense. Sales and marketing expense also includes costs for market development programs, promotional and other marketing costs, professional services, and allocated costs. We continue to thoughtfully invest in headcount and have substantially grown our sales presence internationally. We expect sales and marketing expense to continue to increase in absolute dollars as we increase the size of our sales and marketing organizations to increase touch points with end-customers and to expand our international presence, although our sales and marketing expense may fluctuate as a percentage of total revenue.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Sales and marketing	\$ 388.4	\$ 339.0	\$ 49.4	14.6 %	\$ 1,129.0	\$ 973.6	\$ 155.4	16.0 %
Number of employees at period end	3,853	3,194	659	20.6 %	3,853	3,194	659	20.6 %

Sales and marketing expense increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The increase was primarily due to personnel costs, which grew \$34.7 million to \$290.6 million for the three months ended April 30, 2020 compared to the three months ended April 30, 2019, and grew \$115.1 million to \$842.2 million for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019. The increase in personnel costs in both periods was largely due to headcount growth. The increase in personnel costs in the three months ended April 30, 2020 was partially offset by savings related to decreased travel as a response to COVID-19. The remaining increase in both periods was primarily driven by an increase in costs associated with marketing-related activities. The increase in the three months ended April 30, 2020 also included costs to cancel in-person events, replace them with virtual events or postpone them to future periods due to COVID-19.

General and Administrative

General and administrative expense consists primarily of personnel costs for our executive, finance, human resources, legal, and information technology organizations, and professional services costs, which consist primarily of legal, auditing, accounting, and other consulting costs. General and administrative expense also includes certain non-recurring general expenses and impairment losses. Certain facilities, depreciation, benefits, recruiting, and information technology costs are allocated to other organizations based on headcount. We expect general and administrative expense to increase in absolute dollars due to additional costs associated with accounting, compliance, and insurance, although our general and administrative expense may fluctuate as a percentage of total revenue.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
General and administrative	\$ 82.9	\$ 62.3	\$ 20.6	33.1 %	\$ 228.9	\$ 192.6	\$ 36.3	18.8 %
Number of employees at period end	886	760	126	16.6 %	886	760	126	16.6 %

General and administrative expense increased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019, primarily due to personnel costs, which increased \$13.1 million to \$52.1 million for the three months ended April 30, 2020 compared to the three months ended April 30, 2019, and increased \$25.2 million to \$154.1 million for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019. The increase in both periods was largely due to headcount growth. The increase in personnel costs in the nine months ended April 30, 2020 was partially offset by accelerated vesting of certain equity awards in connection with business acquisitions during the nine months ended April 30, 2019. The remaining increase in general and administrative expense in both periods was primarily due to increases in acquisition-related costs and other costs to support our business growth, partially offset by a net decrease in facility exit related charges.

Interest Expense

Interest expense primarily consists of non-cash interest expense from the amortization of the debt discount and debt issuance costs related to our 0.0% Convertible Senior Notes due 2019 (the “2019 Notes”) and 0.75% Convertible Senior Notes due 2023 (the “2023 Notes”) and, together with the 2019 Notes, the “Notes”), and also includes the contractual interest expense related to our 2023 Notes.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Interest expense	\$ 19.4	\$ 20.6	\$ (1.2)	(5.8)%	\$ 57.3	\$ 63.9	\$ (6.6)	(10.3)%

Interest expense decreased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The decrease in the three and nine months ended April 30, 2020 was primarily due to conversions of our 2019 Notes before and upon maturity in July 2019. Refer to Note 9. Debt in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information on our Notes.

Other Income, Net

Other income, net includes interest income earned on our cash, cash equivalents, and investments, foreign currency remeasurement gains and losses, and foreign currency transaction gains and losses.

	Three Months Ended April 30,				Nine Months Ended April 30,			
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Other income, net	\$ 8.1	\$ 18.2	\$ (10.1)	(55.5)%	\$ 35.1	\$ 47.2	\$ (12.1)	(25.6)%

Other income, net decreased for the three and nine months ended April 30, 2020 compared to the three and nine months ended April 30, 2019. The decrease was primarily due to lower interest income on our investments.

Provision for Income Taxes

Provision for income taxes consists primarily of income taxes in foreign jurisdictions in which we conduct business, withholding taxes, and U.S. state income taxes. We maintain a full valuation allowance for domestic and certain foreign deferred tax assets, including net operating loss carryforwards and certain domestic tax credits. In recent years, we reorganized our corporate structure and intercompany relationships to more closely align with the international nature of our business activities. Our corporate structure has caused, and may continue to cause, disproportionate relationships between our overall effective tax rate and other jurisdictional measures. To the extent we revisit our corporate structure, it may have an impact on our tax provision.

	Three Months Ended April 30,		Change		Nine Months Ended April 30,		Change	
	2020		2019		2020		2019	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Provision for (benefit from) income taxes	\$ 7.0	\$ (0.9)	\$ 7.9	(877.8)%	\$ 24.7	\$ 0.2	\$ 24.5	12,250.0 %
Effective tax rate	(10.3)%	4.3 %			(13.5)%	(0.3)%		

We recorded an income tax provision for the three and nine months ended April 30, 2020. The provision for income taxes for the three and nine months ended April 30, 2020 was primarily due to income taxes in profitable foreign jurisdictions, U.S. state taxes, and withholding taxes. Our provision for income taxes increased for the three months ended April 30, 2020 compared to the three months ended April 30, 2019, primarily due to an increase in foreign withholding taxes. Our provision for income taxes increased for the nine months ended April 30, 2020 compared to the nine months ended April 30, 2019, due to an increase in withholding taxes and a decrease in one-time tax benefits relating to partial releases of our U.S. valuation allowance resulting from acquisitions. Refer to Note 14. Income Taxes in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

Liquidity and Capital Resources

	April 30, 2020		July 31, 2019	
	(in millions)			
Working capital	\$	678.3	\$	1,611.5
Cash, cash equivalents, and investments:				
Cash and cash equivalents	\$	1,484.7	\$	961.4
Investments		705.3		2,417.1
Total cash, cash equivalents, and investments	\$	2,190.0	\$	3,378.5

As of April 30, 2020, our total cash, cash equivalents, and investments of \$2.2 billion were held for general corporate purposes, of which approximately \$360.1 million was held outside of the United States. As of April 30, 2020, we had no unremitted earnings when evaluating our outside basis difference relating to our U.S. investment in foreign subsidiaries. However, there could be local withholding taxes payable due to various foreign countries if certain lower tier earnings are distributed. Withholding taxes that would be payable upon remittance of these lower tier earnings are not expected to be material.

In July 2018, we issued the 2023 Notes with an aggregate principal amount of \$1.7 billion. The 2023 Notes mature on July 1, 2023; however, under certain circumstances, holders may surrender their 2023 Notes for conversion prior to the maturity date. Upon conversion of the 2023 Notes, we will pay cash equal to the aggregate principal amount of the 2023 Notes to be converted, and, at our election, will pay or deliver cash and/or shares of our common stock for the amount of our conversion obligation in excess of the

aggregate principal amount of the 2023 Notes being converted. As of April 30, 2020, all of the 2023 Notes remained outstanding. Refer to Note 9. Debt in Part I, Item 1 of this Quarterly Report on Form 10-Q for information on the Notes.

In September 2018, we entered into a credit agreement (the "Credit Agreement") that provides for a \$400.0 million unsecured revolving credit facility (the "Credit Facility"), with an option to increase the amount of the credit facility up to an additional \$350.0 million, subject to certain conditions. As of April 30, 2020, there were no amounts outstanding, and we were in compliance with all covenants under the Credit Agreement. Refer to Note 9. Debt in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information on the Credit Agreement.

In February 2019, our board of directors authorized a \$1.0 billion share repurchase program which is funded from available working capital and will expire on December 31, 2020. As of April 30, 2020, \$801.9 million remained available for future share repurchases under this repurchase authorization. In February 2020, our board of directors approved the repurchase of \$1.0 billion of our common stock through an accelerated share repurchase ("ASR") transaction, which is in addition to our \$1.0 billion share repurchase program that our board of directors authorized in February 2019. During the three months ended April 30, 2020 we made an up-front payment of \$1.0 billion pursuant to the ASR to receive an initial delivery of approximately 80% of the common stock, or 4.2 million shares valued at \$800.0 million. The final number of shares to be repurchased under the ASR will be based generally upon the volume weighted average price of our common stock during the repurchase period, which is expected to be completed in our fourth quarter of fiscal 2020. Refer to Note 12. Stockholders' Equity in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information on our repurchase programs.

The following table summarizes our cash flows for the nine months ended April 30, 2020 and 2019:

	Nine Months Ended April 30,	
	2020	2019
	(in millions)	
Net cash provided by operating activities	\$ 702.0	\$ 824.1
Net cash provided by (used in) investing activities	955.6	(1,377.2)
Net cash used in financing activities	(1,132.5)	(637.8)
Net increase (decrease) in cash, cash equivalents, and restricted cash	<u>\$ 525.1</u>	<u>\$ (1,190.9)</u>

Cash from operations could be affected by various risks and uncertainties, including, but not limited to, the effects of COVID-19 and other risks detailed in Part II, Item 1A "Risk Factors" in this Form 10-Q. We believe that our cash flow from operations with existing cash and cash equivalents will be sufficient to meet our anticipated cash needs for at least the next 12 months and thereafter for the foreseeable future. Our future capital requirements will depend on many factors including our growth rate, the timing and extent of spending to support development efforts, the expansion of sales and marketing activities, the introduction of new and enhanced products and subscription and support offerings, the costs to acquire or invest in complementary businesses and technologies, the costs to ensure access to adequate manufacturing capacity, the investments in our infrastructure to support the adoption of our cloud-based subscription offerings, the investments in our new corporate headquarters, the continuing market acceptance of our products and subscription and support offerings and macroeconomic events such as COVID-19. In addition, from time to time we may incur additional tax liability in connection with certain corporate structuring decisions.

We may also choose to seek additional equity or debt financing. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, operating results, and financial condition may be adversely affected.

Operating Activities

Our operating activities have consisted of net losses adjusted for certain non-cash items and changes in assets and liabilities.

Cash provided by operating activities during the nine months ended April 30, 2020 was \$702.0 million, a decrease of \$122.1 million compared to the nine months ended April 30, 2019. The decrease was primarily due to higher cash expenditure during the nine months ended April 30, 2020. The decrease was partially offset by an increase due to growth of our business, as reflected by an increase in billings during the nine months ended April 30, 2020, and repayments of the 2019 Notes attributable to the debt discount during the nine months ended April 30, 2019.

Investing Activities

Our investing activities have consisted of capital expenditures, net investment purchases, sales, and maturities, and business acquisitions. We expect to continue such activities as our business grows.

Cash provided by investing activities during the nine months ended April 30, 2020 was \$955.6 million, a net change of \$2.3 billion compared to cash used in investing activities of \$1.4 billion during the nine months ended April 30, 2019. The change was primarily due to lower purchases of investments and higher proceeds from maturities and sales of investments, partially offset by an

increase in net cash payments for business acquisitions and an increase in purchases of property, equipment and other assets, including a land purchase in Santa Clara, California during the nine months ended April 30, 2020.

Financing Activities

Our financing activities have consisted of repayments of the 2019 Notes, proceeds from sales of shares through employee equity incentive plans, cash used to repurchase shares of our common stock, and payments for tax withholding obligations of certain employees related to the net share settlement of equity awards.

Cash used in financing activities during the nine months ended April 30, 2020 was \$1,132.5 million, an increase of \$494.7 million compared to the nine months ended April 30, 2019. The increase was primarily due to higher repurchases of our common stock during the nine months ended April 30, 2020, partially offset by repayments of our 2019 Notes during the nine months ended April 30, 2019.

Off-Balance Sheet Arrangements

As of April 30, 2020, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Estimates

Our condensed consolidated financial statements have been prepared in accordance with U.S. GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. These estimates and assumptions are affected by management's application of accounting policies, as well as uncertainty in the current economic environment due to the recent outbreak of COVID-19. We evaluate our estimates and assumptions on an ongoing basis. Actual results may differ from these estimates. To the extent that there are material differences between these estimates and our actual results, our future financial statements will be affected.

We believe the critical accounting estimates discussed under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the fiscal year ended July 31, 2019 reflect our more significant judgments and estimates used in the preparation of our condensed consolidated financial statements. There have been no significant changes to our critical accounting estimates as filed in such report.

Recent Accounting Pronouncements

Refer to "Recently Adopted Accounting Pronouncements" and "Recently Issued Accounting Pronouncements" in Note 1, Description of Business and Summary of Significant Accounting Policies in Part I, Item 1 of this Quarterly Report on Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our assessment of our exposures to market risk has not changed materially since the presentation set forth in Part II, Item 7A of our Annual Report on Form 10-K for the fiscal year ended July 31, 2019.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of the end of the period covered by this report. Based on our evaluation, our chief executive officer and chief financial officer concluded that, as of April 30, 2020, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose 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 that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

As a result of COVID-19, most of our workforce has been working from home since March 2020. However, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fiscal quarter ended April 30, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Controls

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected.

PART II

ITEM 1. LEGAL PROCEEDINGS

The information set forth under the “Litigation” subheading in Note 11. Commitments and Contingencies in Part I, Item 1 of this Quarterly Report on Form 10-Q is incorporated herein by reference.

ITEM 1A. RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties including those described below. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, also may become important factors that affect us. If any of the following risks or others not specified below materialize, our business, financial condition, and operating results could be materially adversely affected and the market price of our common stock could decline. In addition, the impacts of COVID-19 and any worsening of the economic environment may exacerbate the risks described below, any of which could have a material impact on us. This situation is changing rapidly and additional impacts may arise that we are not currently aware of.

Risks Related to Our Business and Our Industry

The recent global COVID-19 outbreak could harm our business and results of operations.

The novel strain of COVID-19 identified in late 2019 has spread globally, including within the United States, and has resulted in government authorities implementing numerous measures to try to contain the virus, such as travel bans and restrictions, quarantines, shelter in place orders, and shutdowns. This outbreak has negatively impacted worldwide economic activity and financial markets and has impacted, and will further impact, our workforce and operations, the operations of our end-customers, and those of our respective channel partners, vendors and suppliers. In light of the uncertain and rapidly evolving situation relating to the spread of this virus and various government restrictions and guidelines, we have taken measures intended to mitigate the spread of the virus and minimize the risk to our employees, channel partners, end-customers, and the communities in which we operate. These measures include transitioning our employee population to work remotely from home beginning in March 2020. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance become available, these precautionary measures that we have adopted could negatively affect our customer success efforts, sales and marketing efforts, delay and lengthen our sales cycles, and create operational or other challenges, any of which could harm our business and results of operations. In addition, COVID-19 may disrupt the operations of our end-customers and channel partners for an indefinite period of time, including as a result of travel restrictions and/or business shutdowns, all of which could negatively impact our business and results of operations, including cash flows.

The impact of COVID-19 is fluid and uncertain, but it has caused and may continue to cause various negative effects, including an inability to meet with our actual or potential end-customers; our end-customers deciding to delay or abandon their planned purchases; increased requests for delayed payment terms or product discounts by our end-customers and channel partners; us delaying, canceling, or withdrawing from user and industry conferences and other marketing events, including some of our own; changes in the demand of our products, which has caused us to reprioritize our engineering and research and development efforts and make changes to our original offering roadmap; and delays or possible disruptions in our supply chain. As a result, we may experience extended sales cycles; our demand generation activities, our ability to close transactions with new and existing end-customers and partners may be negatively impacted; our ability to provide 24x7 worldwide support and/or replacement parts to our end-customers may be adversely affected; and it has been and, until the COVID-19 outbreak is contained and global economic activity stabilizes, will continue to be more difficult for us to forecast our operating results.

More generally, the outbreak has not only significantly and adversely increased economic and demand uncertainty, but it has caused a global economic slowdown, and it is likely that it will cause a global recession which will likely decrease technology spending and adversely affect demand for our offerings and harm our business and results of operations.

Our business and operations have experienced growth in recent periods, and if we do not effectively manage any future growth or are unable to improve our systems, processes, and controls, our operating results could be adversely affected.

We have experienced growth and increased demand for our products and subscriptions over the last few years. As a result, our employee headcount has increased significantly, and we expect it to continue to grow over the next year. For example, from the end of fiscal 2019 to the end of the third quarter of fiscal 2020, our headcount increased from 7,014 to 8,049 employees. In addition, as we have grown, our number of end-customers has also increased significantly, and we have increasingly managed more complex deployments of our products and subscriptions with larger end-customers. The growth and expansion of our business and product, subscription, and support offerings places a significant strain on our management, operational, and financial resources. To manage any future growth effectively, we must continue to improve and expand our information technology and financial infrastructure, our operating and administrative systems and controls, and our ability to manage headcount, capital, and processes in an efficient manner, all of which may be more difficult to accomplish the longer that our employees must work remotely from home.

We may not be able to successfully implement or scale improvements to our systems, processes, and controls in an efficient or timely manner. In addition, our existing systems, processes, and controls may not prevent or detect all errors, omissions, or fraud. We may also experience difficulties in managing improvements to our systems, processes, and controls or in connection with third-party software licensed to help us with such improvements. Any future growth would add complexity to our organization and require effective coordination throughout our organization. Failure to manage any future growth effectively could result in increased costs, disrupt our existing end-customer relationships, reduce demand for or limit us to smaller deployments of our platforms, or harm our business performance and operating results.

Our operating results may vary significantly from period to period and be unpredictable, which could cause the market price of our common stock to decline.

Our operating results, in particular, our revenues, gross margins, operating margins, and operating expenses, have historically varied from period to period, and even though we have experienced growth, we expect variation to continue as a result of a number of factors, many of which are outside of our control and may be difficult to predict, including:

- our ability to attract and retain new end-customers or sell additional products and subscriptions to our existing end-customers;
- the budgeting cycles, seasonal buying patterns, and purchasing practices of our end-customers, including the likely slowdown in technology spending due to the recent global economic downturn;
- changes in end-customer, distributor or reseller requirements, or market needs;
- price competition;
- the timing and success of new product and service introductions by us or our competitors or any other change in the competitive landscape of our industry, including consolidation among our competitors or end-customers and strategic partnerships entered into by and between our competitors;
- changes in the mix of our products, subscriptions, and support, including changes in multi-year subscriptions and support;
- our ability to successfully and continuously expand our business domestically and internationally, particularly in the current global economic slowdown;
- changes in the growth rate of the enterprise security market;
- deferral of orders from end-customers in anticipation of new products or product enhancements announced by us or our competitors;
- the timing and costs related to the development or acquisition of technologies or businesses or strategic partnerships;
- lack of synergy or the inability to realize expected synergies, resulting from acquisitions or strategic partnerships;
- our inability to execute, complete or integrate efficiently any acquisitions that we may undertake;
- increased expenses, unforeseen liabilities, or write-downs and any impact on our operating results from any acquisitions we consummate;
- our ability to increase the size and productivity of our distribution channel;
- decisions by potential end-customers to purchase security solutions from larger, more established security vendors or from their primary network equipment vendors;
- changes in end-customer penetration or attach and renewal rates for our subscriptions;
- timing of revenue recognition and revenue deferrals;
- our ability to manage production and manufacturing related costs, global customer service organization costs, inventory excess and obsolescence costs, and warranty costs, especially due to potential disruptions in our supply chain as a result of COVID-19;
- insolvency or credit difficulties confronting our end-customers, which could increase due to the effects of COVID-19 and adversely affect their ability to purchase or pay for our products and subscription and support offerings in a timely manner or at all, or confronting our key suppliers, including our sole source suppliers, which could disrupt our supply chain;
- any disruption in our channel or termination of our relationships with important channel partners, including as a result of consolidation among distributors and resellers of security solutions;
- our inability to fulfill our end-customers' orders due to supply chain delays or events that impact our manufacturers or their suppliers, which may be adversely affected by the effects of COVID-19;
- the cost and potential outcomes of litigation, which could have a material adverse effect on our business;

- seasonality or cyclical fluctuations in our markets;
- future accounting pronouncements or changes in our accounting policies;
- increases or decreases in our expenses caused by fluctuations in foreign currency exchange rates, as an increasing amount of our expenses is incurred and paid in currencies other than the U.S. dollar;
- political, economic and social instability caused by the referendum in June 2016, in which voters in the United Kingdom (the “U.K.”) approved an exit from the European Union (the “E.U.”) and the U.K. government subsequently notified the E.U. of its withdrawal, which is commonly referred to as “Brexit,” continued hostilities in the Middle East, terrorist activities, and any disruption from COVID-19 and any disruption these events may cause to the broader global industrial economy; and
- general macroeconomic conditions, both domestically and in our foreign markets that could impact some or all regions where we operate.

Any one of the factors above, or the cumulative effect of some of the factors referred to above, may result in significant fluctuations in our financial and other operating results. This variability and unpredictability could result in our failure to meet our revenue, margin, or other operating result expectations or those of securities analysts or investors for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our common stock could fall substantially, and we could face costly lawsuits, including securities class action suits.

The sudden and significant global economic downturns could have an adverse effect on our business and operating results.

We operate globally and as a result our business and revenues are impacted by global macroeconomic conditions. The multinational efforts to contain the spread of COVID-19 have had a significant adverse effect on the global macroeconomic environment that could lead to a global recession. In addition, the instability in the global credit markets, the recent contraction of China’s economy, falling demand for oil and other commodities, uncertainties regarding the effects of Brexit, uncertainties related to the timing of the lifting of governmental restrictions to mitigate the spread of COVID-19, uncertainties related to elections and changes in public policies such as domestic and international regulations, taxes, or international trade agreements, international trade disputes, government shutdowns, geopolitical turmoil and other disruptions to global and regional economies and markets could continue to add uncertainty to global economic conditions.

These adverse conditions could result in reductions in sales of our products and subscriptions, longer sales cycles, reductions in subscription or contract duration and value, slower adoption of new technologies, and increased price competition. As a result, any continued or further uncertainty, weakness or deterioration in global macroeconomic and market conditions may cause our end-customers to modify spending priorities or delay purchasing decisions, and result in lengthened sales cycles, any of which could harm our business and operating results.

Our revenue growth rate in recent periods may not be indicative of our future performance.

We have experienced revenue growth rates of 17.4% and 29.6% in the nine months ended April 30, 2020 and the nine months ended April 30, 2019, respectively. Our revenue for any prior quarterly or annual period should not be relied upon as an indication of our future revenue or revenue growth for any future period. If we are unable to maintain consistent or increasing revenue or revenue growth, the market price of our common stock could be volatile, and it may be difficult for us to achieve and maintain profitability or maintain or increase cash flow on a consistent basis.

We have a history of losses, anticipate increasing our operating expenses in the future, and may not be able to achieve or maintain profitability or maintain or increase cash flow on a consistent basis, which could cause our business, financial condition, and operating results to suffer.

Other than fiscal 2012, we have incurred losses in all fiscal years since our inception. As a result, we had an accumulated deficit of \$1,109.0 million as of April 30, 2020. We anticipate that our operating expenses will continue to increase in the foreseeable future as we continue to grow our business. Our growth efforts may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenues sufficiently, or at all, to offset increasing expenses. Revenue growth may slow or revenue may decline for a number of possible reasons, including the downturn in the global and U.S. economy due to COVID-19, slowing demand for our products or subscriptions, increasing competition, a decrease in the growth of, or a demand shift in, our overall market, or a failure to capitalize on growth opportunities. Any failure to increase our revenue as we grow our business could prevent us from achieving or maintaining profitability or maintaining or increasing cash flow on a consistent basis. In addition, we may have difficulty achieving profitability under U.S. GAAP due to share-based compensation expense and other non-cash charges. If we are unable to navigate these challenges as we encounter them, our business, financial condition, and operating results may suffer.

If we are unable to sell new and additional product, subscription, and support offerings to our end-customers, our future revenue and operating results will be harmed.

Our future success depends, in part, on our ability to expand the deployment of our platforms with existing end-customers and create demand for our new offerings, including cloud security, AI and analytics offerings. This may require increasingly sophisticated and costly sales efforts that may not result in additional sales. The rate at which our end-customers purchase additional products, subscriptions, and support depends on a number of factors, including the perceived need for additional security products, including subscription and support offerings, as well as general economic conditions. Further, existing end-customers have no contractual obligation to and may not renew their subscription and support contracts after the completion of their initial contract period. Our end-customers' renewal rates may decline or fluctuate as a result of a number of factors, including their level of satisfaction with our subscriptions and our support offerings, the frequency and severity of subscription outages, our product uptime or latency, and the pricing of our, or competing, subscriptions. Additionally, our end-customers may renew their subscription and support agreements for shorter contract lengths or on other terms that are less economically beneficial to us. We also cannot be certain that our end-customers will renew their subscription and support agreements. If our efforts to sell additional products and subscriptions to our end-customers are not successful or our end-customers do not renew their subscription and support agreements or renew them on less favorable terms, our revenues may grow more slowly than expected or decline.

We face intense competition in our market, especially from larger, well-established companies, and we may lack sufficient financial or other resources to maintain or improve our competitive position.

The market for enterprise security products is intensely competitive, and we expect competition to increase in the future from established competitors and new market entrants. Our main competitors fall into three categories:

- large companies that incorporate security features in their products, such as Cisco Systems, Inc. ("Cisco") and Juniper Networks, Inc. ("Juniper"), or those that have acquired, or may acquire, large network and endpoint security vendors and have the technical and financial resources to bring competitive solutions to the market;
- independent security vendors, such as Check Point Software Technologies Ltd. ("Check Point") and Fortinet, Inc., that offer a mix of network and endpoint security products; and
- small and large companies that offer point solutions and/or cloud security services that compete with some of the features present in our platforms.

Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as:

- greater name recognition and longer operating histories;
- larger sales and marketing budgets and resources;
- broader distribution and established relationships with distribution partners and end-customers;
- greater customer support resources;
- greater resources to make strategic acquisitions or enter into strategic partnerships;
- lower labor and development costs;
- larger and more mature intellectual property portfolios; and
- substantially greater financial, technical, and other resources.

In addition, some of our larger competitors have substantially broader and more diverse product and services offerings, which may make them less susceptible to downturns in a particular market and allow them to leverage their relationships based on other products or incorporate functionality into existing products to gain business in a manner that discourages users from purchasing our products and subscriptions, including through selling at zero or negative margins, offering concessions, product bundling, or closed technology platforms. Many of our smaller competitors that specialize in providing protection from a single type of security threat are often able to deliver these specialized security products to the market more quickly than we can.

Organizations that use legacy products and services may believe that these products and services are sufficient to meet their security needs or that our platforms only serve the needs of a portion of the enterprise security market. Accordingly, these organizations may continue allocating their information technology budgets for legacy products and services and may not adopt our security platforms. Further, many organizations have invested substantial personnel and financial resources to design and operate their networks and have established deep relationships with other providers of networking and security products. As a result, these organizations may prefer to purchase from their existing suppliers rather than add or switch to a new supplier such as us regardless of product performance, features, or greater services offerings or may be more willing to incrementally add solutions to their existing security infrastructure from existing suppliers than to replace it wholesale with our solutions.

Conditions in our market could change rapidly and significantly as a result of technological advancements, partnering or acquisitions by our competitors, or continuing market consolidation. New start-up companies that innovate and large competitors that are making significant investments in research and development may invent similar or superior products and technologies that compete with our products and subscriptions. Some of our competitors have made or could make acquisitions of businesses that may allow them to offer more directly competitive and comprehensive solutions than they had previously offered and adapt more quickly to new technologies and end-customer needs. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources.

These competitive pressures in our market or our failure to compete effectively may result in price reductions, fewer orders, reduced revenue and gross margins, and loss of market share. Any failure to meet and address these factors could seriously harm our business and operating results.

A network or data security incident may allow unauthorized access to our network or data, harm our reputation, create additional liability and adversely impact our financial results.

Increasingly, companies are subject to a wide variety of attacks on their networks on an ongoing basis. In addition to traditional computer “hackers,” malicious code (such as viruses and worms), phishing attempts, employee theft or misuse, and denial of service attacks, sophisticated nation-state and nation-state supported actors engage in intrusions and attacks (including advanced persistent threat intrusions) and add to the risks to our internal networks, cloud deployed enterprise and customer facing environments and the information they store and process. These risks may increase due to COVID-19. Despite significant efforts to create security barriers to such threats, it is virtually impossible for us to entirely mitigate these risks. We and our third-party service providers may face security threats and attacks from a variety of sources. Our data, corporate systems, third-party systems and security measures may be breached due to the actions of outside parties, employee error, malfeasance, a combination of these, or otherwise, and, as a result, an unauthorized party may obtain access to our data. Furthermore, as a well-known provider of security solutions, we may be a more attractive target for such attacks. A breach in our data security or an attack against our service availability, or that of our third-party service providers, could impact our networks or networks secured by our products and subscriptions, creating system disruptions or slowdowns and exploiting security vulnerabilities of our products, and the information stored on our networks or those of our third-party service providers could be accessed, publicly disclosed, altered, lost, or stolen, which could subject us to liability and cause us financial harm. Although we have not yet experienced significant damages from unauthorized access by a third party of our internal network, any actual or perceived breach of network security in our systems or networks, or any other actual or perceived data security incident we or our third-party service providers suffer, could result in damage to our reputation, negative publicity, loss of channel partners, end-customers and sales, loss of competitive advantages over our competitors, increased costs to remedy any problems and otherwise respond to any incident, regulatory investigations and enforcement actions, costly litigation, and other liability. In addition, we may incur significant costs and operational consequences of investigating, remediating, eliminating and putting in place additional tools and devices designed to prevent actual or perceived security breaches and other security incidents, as well as the costs to comply with any notification obligations resulting from any security incidents. While we maintain cybersecurity insurance, our insurance may be insufficient to cover all liabilities incurred by these incidents, and any incidents may result in loss of, or increased costs of, our cybersecurity insurance. Any of these negative outcomes could adversely impact the market perception of our products and subscriptions and end-customer and investor confidence in our company and could seriously harm our business or operating results.

Reliance on shipments at the end of the quarter could cause our revenue for the applicable period to fall below expected levels.

As a result of end-customer buying patterns and the efforts of our sales force and channel partners to meet or exceed their sales objectives, we have historically received a substantial portion of sales orders and generated a substantial portion of revenue during the last few weeks of each fiscal quarter. If expected revenue at the end of any fiscal quarter is delayed for any reason, including the failure of anticipated purchase orders to materialize (particularly for large enterprise end-customers with lengthy sales cycles), our logistics partners’ inability to ship products prior to fiscal quarter-end to fulfill purchase orders received near the end of the fiscal quarter (including due to the effects of COVID-19), our failure to manage inventory to meet demand, any failure of our systems related to order review and processing, or any delays in shipments based on trade compliance requirements (including new compliance requirements imposed by new or renegotiated trade agreements), revenue could fall below our expectations and the estimates of analysts for that quarter, which could adversely impact our business and operating results and cause a decline in the market price of our common stock.

Seasonality may cause fluctuations in our revenue.

We believe there are significant seasonal factors that may cause our second and fourth fiscal quarters to record greater revenue sequentially than our first and third fiscal quarters. We believe that this seasonality results from a number of factors, including:

- end-customers with a December 31 fiscal year-end choosing to spend remaining unused portions of their discretionary budgets before their fiscal year-end, which potentially results in a positive impact on our revenue in our second fiscal quarter;

- our sales compensation plans, which are typically structured around annual quotas and commission rate accelerators, which potentially results in a positive impact on our revenue in our fourth fiscal quarter;
- seasonal reductions in business activity during August in the United States, Europe and certain other regions, which potentially results in a negative impact on our first fiscal quarter revenue; and
- the timing of end-customer budget planning at the beginning of the calendar year, which can result in a delay in spending at the beginning of the calendar year potentially resulting in a negative impact on our revenue in our third fiscal quarter.

As we continue to grow, seasonal or cyclical variations in our operations may become more pronounced, and our business, operating results and financial position may be adversely affected.

If we are unable to hire, integrate, train, retain, and motivate qualified personnel and senior management, our business could suffer.

Our future success depends, in part, on our ability to continue to hire, integrate, train, and retain qualified and highly skilled personnel. We are substantially dependent on the continued service of our existing engineering personnel because of the complexity of our platforms. Additionally, any failure to hire, integrate, train, and adequately incentivize our sales personnel or the inability of our recently hired sales personnel to effectively ramp to target productivity levels could negatively impact our growth and operating margins. Competition for highly skilled personnel, particularly in engineering, is often intense, especially in the San Francisco Bay Area, where we have a substantial presence and need for such personnel. Due to COVID-19, we slowed hiring in the third quarter of 2020, which could adversely affect our ability to retain qualified personnel. Additionally, potential changes in U.S. immigration and work authorization laws and regulations, including in reaction to COVID-19, may make it difficult to renew or obtain visas for any highly skilled personnel that we have hired or are actively recruiting.

In addition, the industry in which we operate generally experiences high employee attrition. Although we have entered into employment offer letters with our key personnel, these agreements have no specific duration and constitute at-will employment. We do not maintain key person life insurance policies on any of our employees. The loss of one or more of our key employees, and any failure to have in place and execute an effective succession plan for key executives, could seriously harm our business. If we are unable to hire, integrate, train, or retain the qualified and highly skilled personnel required to fulfill our current or future needs, our business, financial condition, and operating results could be harmed.

Our future performance also depends on the continued services and continuing contributions of our senior management to execute on our business plan and to identify and pursue new opportunities and product innovations. The loss of services of senior management, the decrease in the effectiveness of such services due to working remotely from home, or the ineffective management of any leadership transitions, especially within our sales organization, could significantly delay or prevent the achievement of our development and strategic objectives, which could adversely affect our business, financial condition, and operating results.

Further, we believe that a critical contributor to our success and our ability to retain highly skilled personnel has been our corporate culture, which we believe fosters innovation, teamwork, passion for end-customers, focus on execution, and the facilitation of critical knowledge transfer and knowledge sharing. As we grow and change, we may find it difficult to maintain these important aspects of our corporate culture. Any failure to preserve our culture as we grow could limit our ability to innovate and could negatively affect our ability to retain and recruit personnel, continue to perform at current levels or execute on our business strategy.

If we are not successful in executing our strategy to increase sales of our products and subscriptions to new and existing medium and large enterprise end-customers, our operating results may suffer.

Our growth strategy is dependent, in part, upon increasing sales of our products, services, subscriptions and offerings to new and existing medium and large enterprise end-customers. Sales to these end-customers involve risks that may not be present, or that are present to a lesser extent, with sales to smaller entities. These risks include:

- competition from competitors, such as Cisco, Check Point, and Juniper, that traditionally target larger enterprises, service providers, and government entities and that may have pre-existing relationships or purchase commitments from those end-customers;
- increased purchasing power and leverage held by large end-customers in negotiating contractual arrangements with us;
- more stringent requirements in our worldwide support contracts, including stricter support response times and penalties for any failure to meet support requirements; and
- longer sales cycles, particularly during the current economic slowdown and in some cases over 12 months, and the associated risk that substantial time and resources may be spent on a potential end-customer that elects not to purchase our products and subscriptions.

In addition, product purchases by large enterprises are frequently subject to budget constraints, multiple approvals, and unplanned administrative, processing, and other delays. Finally, large enterprises typically have longer implementation cycles, require greater product functionality and scalability and a broader range of services, demand that vendors take on a larger share of risks,

sometimes require acceptance provisions that can lead to a delay in revenue recognition, and expect greater payment flexibility from vendors. All of these factors can add further risk to business conducted with these end-customers. If we fail to realize an expected sale from a large end-customer in a particular quarter or at all, our business, operating results, and financial condition could be materially and adversely affected.

We rely on revenue from subscription and support offerings, and because we recognize revenue from subscription and support over the term of the relevant service period, downturns or upturns in sales of these subscription and support offerings are not immediately reflected in full in our operating results.

Subscription and support revenue accounts for a significant portion of our revenue, comprising 69.1% of total revenue in the nine months ended April 30, 2020 and 62.2% of total revenue in nine months ended April 30, 2019. Sales of new or renewal subscription and support contracts may decline and fluctuate as a result of a number of factors, including end-customers' level of satisfaction with our products and subscriptions (including newly integrated products and services), the prices of our products and subscriptions, the prices of products and services offered by our competitors, and reductions in our end-customers' spending levels. If our sales of new or renewal subscription and support contracts decline, our total revenue and revenue growth rate may decline and our business will suffer. In addition, we recognize subscription and support revenue over the term of the relevant service period, which is typically one to five years. As a result, much of the subscription and support revenue we report each fiscal quarter is the recognition of deferred revenue from subscription and support contracts entered into during previous fiscal quarters. Consequently, a decline in new or renewed subscription or support contracts in any one fiscal quarter will not be fully or immediately reflected in revenue in that fiscal quarter but will negatively affect our revenue in future fiscal quarters. Also, it is difficult for us to rapidly increase our subscription and support revenue through additional subscription and support sales in any period, as revenue from new and renewal subscription and support contracts must be recognized over the applicable service period.

Defects, errors, or vulnerabilities in our products, subscriptions, or support offerings, the failure of our products or subscriptions to block a virus or prevent a security breach, misuse of our products, or risks of product liability claims could harm our reputation and adversely impact our operating results.

Because our products and subscriptions are complex, they have contained and may contain design or manufacturing defects or errors that are not detected until after their commercial release and deployment by our end-customers. For example, from time to time, certain of our end-customers have reported defects in our products related to performance, scalability, and compatibility. Additionally, defects may cause our products or subscriptions to be vulnerable to security attacks, cause them to fail to help secure networks, or temporarily interrupt end-customers' networking traffic. Because the techniques used by computer hackers to access or sabotage networks change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques and provide a solution in time to protect our end-customers' networks. Furthermore, as a well-known provider of security solutions, our networks, products, including cloud-based technology, and subscriptions could be targeted by attacks specifically designed to disrupt our business and harm our reputation. In addition, defects or errors in our subscription updates or our products could result in a failure of our subscriptions to effectively update end-customers' hardware and cloud-based products. Our data centers and networks may experience technical failures and downtime, may fail to distribute appropriate updates, or may fail to meet the increased requirements of a growing installed end-customer base, any of which could temporarily or permanently expose our end-customers' networks, leaving their networks unprotected against the latest security threats. Moreover, our products must interoperate with our end-customers' existing infrastructure, which often have different specifications, utilize multiple protocol standards, deploy products from multiple vendors, and contain multiple generations of products that have been added over time. As a result, when problems occur in a network, it may be difficult to identify the sources of these problems.

The occurrence of any such problem in our products and subscriptions, whether real or perceived, could result in:

- expenditure of significant financial and product development resources in efforts to analyze, correct, eliminate, or work-around errors or defects or to address and eliminate vulnerabilities;
- loss of existing or potential end-customers or channel partners;
- delayed or lost revenue;
- delay or failure to attain market acceptance;
- an increase in warranty claims compared with our historical experience, or an increased cost of servicing warranty claims, either of which would adversely affect our gross margins; and
- litigation, regulatory inquiries, or investigations, each of which may be costly and harm our reputation.

Further, our products and subscriptions may be misused by end-customers or third parties that obtain access to our products and subscriptions. For example, our products and subscriptions could be used to censor private access to certain information on the Internet. Such use of our products and subscriptions for censorship could result in negative press coverage and negatively affect our reputation.

The limitation of liability provisions in our standard terms and conditions of sale may not fully or effectively protect us from claims as a result of federal, state, or local laws or ordinances, or unfavorable judicial decisions in the United States or other countries. The sale and support of our products and subscriptions also entails the risk of product liability claims. Although we may be indemnified by our third-party manufacturers for product liability claims arising out of manufacturing defects, because we control the design of our products and subscriptions, we may not be indemnified for product liability claims arising out of design defects. We maintain insurance to protect against certain claims associated with the use of our products and subscriptions, but our insurance coverage may not adequately cover any claim asserted against us. In addition, even claims that ultimately are unsuccessful could result in our expenditure of funds in litigation, divert management's time and other resources, and harm our reputation.

False detection of applications, viruses, spyware, vulnerability exploits, data patterns, or URL categories could adversely affect our business.

Our classifications of application type, virus, spyware, vulnerability exploits, data, or uniform resource locator ("URL") categories may falsely detect, report and act on applications, content, or threats that do not actually exist. This risk is heightened by the inclusion of a "heuristics" feature in our products and subscriptions, which attempts to identify applications and other threats not based on any known signatures but based on characteristics or anomalies which indicate that a particular item may be a threat. These false positives may impair the perceived reliability of our products and subscriptions and may therefore adversely impact market acceptance of our products and subscriptions. If our products and subscriptions restrict important files or applications based on falsely identifying them as malware or some other item that should be restricted, this could adversely affect end-customers' systems and cause material system failures. Any such false identification of important files or applications could result in damage to our reputation, negative publicity, loss of channel partners, end-customers and sales, increased costs to remedy any problem, and costly litigation.

We rely on our channel partners to sell substantially all of our products, including subscriptions and support, and if these channel partners fail to perform, our ability to sell and distribute our products and subscriptions will be limited, and our operating results will be harmed.

Substantially all of our revenue is generated by sales through our channel partners, including distributors and resellers. We provide our channel partners with specific training and programs to assist them in selling our products, including subscriptions and support offerings, but there can be no assurance that these steps will be utilized or effective. In addition, our channel partners may be unsuccessful in marketing, selling, and supporting our products and subscriptions. We may not be able to incentivize these channel partners to sell our products and subscriptions to end-customers and, in particular, to large enterprises. These channel partners may also have incentives to promote our competitors' products and may devote more resources to the marketing, sales, and support of competitive products. Our channel partners operations may also be negatively impacted by other effects COVID-19 is having on the global economy, such as increased credit risk of end customers and the uncertain credit markets. Our agreements with our channel partners may generally be terminated for any reason by either party with advance notice prior to each annual renewal date. We cannot be certain that we will retain these channel partners or that we will be able to secure additional or replacement channel partners. In addition, any new channel partner requires extensive training and may take several months or more to achieve productivity. Our channel partner sales structure could subject us to lawsuits, potential liability, and reputational harm if, for example, any of our channel partners misrepresent the functionality of our products or subscriptions to end-customers or violate laws or our corporate policies. If we fail to effectively manage our sales channels or channel partners, our ability to sell our products and subscriptions and operating results will be harmed.

If we do not accurately predict, prepare for, and respond promptly to rapidly evolving technological and market developments and successfully manage product and subscription introductions and transitions to meet changing end-customer needs in the enterprise security market, our competitive position and prospects will be harmed.

The enterprise security market has grown quickly and is expected to continue to evolve rapidly. Moreover, many of our end-customers operate in markets characterized by rapidly changing technologies and business plans, which require them to add numerous network access points and adapt increasingly complex enterprise networks, incorporating a variety of hardware, software applications, operating systems, and networking protocols. We must continually change our products and expand our business strategy in response to changes in network infrastructure requirements, including the expanding use of cloud computing. For example, organizations are moving portions of their data to be managed by third parties, primarily infrastructure, platform and application service providers, and may rely on such providers' internal security measures. In 2019, we announced our new cloud security offerings, for securing access to the cloud (Prisma), and our security offerings for securing the future of security operations (Cortex). While we have historically been successful in developing, acquiring, and marketing new products and product enhancements that respond to technological change and evolving industry standards, we may not be able to continue to do so and there can be no assurance that our new or future offerings will be successful or will achieve widespread market acceptance. If we fail to accurately predict end-customers' changing needs and emerging technological trends in the enterprise security industry, including in the areas of mobility, virtualization, cloud computing, and software defined networks ("SDN"), our business could be harmed. In addition, COVID-19 and the resulting increase in customer demand for work-from-home technologies and other technologies have caused us to reprioritize our engineering and R&D efforts and there can be no assurance that any product enhancements or new features will be successful or address our end-customer needs.

The technology in our platforms is especially complex because it needs to effectively identify and respond to new and increasingly sophisticated methods of attack, while minimizing the impact on network performance. Additionally, some of our new platform features and related platform enhancements may require us to develop new hardware architectures that involve complex, expensive, and time-consuming research and development processes. The development of our platforms is difficult and the timetable for commercial release and availability is uncertain as there can be long time periods between releases and availability of new platform features. If we experience unanticipated delays in the availability of new products, platform features, and subscriptions, and fail to meet customer expectations for such availability, our competitive position and business prospects will be harmed.

Additionally, we must commit significant resources to developing new platform features and new cloud security, AI/analytics and other offerings before knowing whether our investments will result in products, subscriptions, and platform features the market will accept. The success of new platform features depends on several factors, including appropriate new product definition, differentiation of new products, subscriptions, and platform features from those of our competitors, and market acceptance of these products, services and platform features. Moreover, successful new product introduction and transition depends on a number of factors including, our ability to manage the risks associated with new product production ramp-up issues, the availability of application software for new products, the effective management of purchase commitments and inventory, the availability of products in appropriate quantities and costs to meet anticipated demand, and the risk that new products may have quality or other defects or deficiencies, especially in the early stages of introduction. There can be no assurance that we will successfully identify opportunities for new products and subscriptions, develop and bring new products and subscriptions to market in a timely manner, or achieve market acceptance of our products and subscriptions, including our product enhancement efforts in connection with COVID-19, or that products, subscriptions, and technologies developed by others will not render our products, subscriptions, or technologies obsolete or noncompetitive.

Our current research and development efforts may not produce successful products, subscriptions, or platform features that result in significant revenue, cost savings or other benefits in the near future, if at all.

Developing our products, subscriptions, platform features, and related enhancements is expensive. Our investments in research and development may not result in significant design improvements, marketable products, subscriptions, or platform features, or may result in products, subscriptions, or platform features that are more expensive than anticipated. Additionally, we may not achieve the cost savings or the anticipated performance improvements we expect, and we may take longer to generate revenue, or generate less revenue, than we anticipate. Our future plans include significant investments in research and development and related product and subscription opportunities. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. However, we may not receive significant revenue from these investments in the near future, if at all, or these investments may not yield the expected benefits, either of which could adversely affect our business and operating results.

We may acquire other businesses, which could require significant management attention, disrupt our business, dilute stockholder value, and adversely affect our operating results.

As part of our business strategy, we may acquire or make investments in complementary companies, products, or technologies. For example, in February 2017, we acquired LightCyber Ltd. (“LightCyber”), in March 2018, we acquired Evident.io, Inc., in April 2018, we acquired Cyber Secdo Ltd. (“Secdo”), in October 2018, we acquired RedLock Inc., in March 2019, we acquired Demisto, Inc., in June 2019, we acquired PureSec Ltd. (“PureSec”), in July 2019, we acquired Twistlock Ltd. (“Twistlock”), in September 2019, we acquired Zingbox, and in December 2019 we acquired Aporeto. In addition, in the third quarter of fiscal 2020 we acquired CloudGenix Inc. The identification of suitable acquisition candidates is difficult, and we may not be able to complete such acquisitions on favorable terms, if at all. If we do complete future acquisitions, we may not ultimately strengthen our competitive position or achieve our goals and business strategy; we may be subject to claims or liabilities assumed from an acquired company, product, or technology; acquisitions we complete could be viewed negatively by our end-customers, investors, and securities analysts; and we may incur costs and expenses necessary to address an acquired company’s failure to comply with laws and governmental rules and regulations. Additionally, we may be subject to litigation or other claims in connection with the acquired company, including claims from terminated employees, customers, former stockholders or other third parties, which may differ from or be more significant than the risks our business faces. If we are unsuccessful at integrating past or future acquisitions in a timely manner, or the technologies and operations associated with such acquisitions, into our company, the revenue and operating results of the combined company could be adversely affected. Any integration process may require significant time and resources, which may disrupt our ongoing business and divert management’s attention, and we may not be able to manage the integration process successfully or in a timely manner. We may not successfully evaluate or utilize the acquired technology or personnel, realize anticipated synergies from the acquisition, or accurately forecast the financial impact of an acquisition transaction and integration of such acquisition, including accounting charges and any potential impairment of goodwill and intangible assets recognized in connection with such acquisitions. We may have to pay cash, incur debt, or issue equity or equity-linked securities to pay for any future acquisitions, each of which could adversely affect our financial condition or the market price of our common stock. Furthermore, the sale of equity or issuance of equity-linked debt to finance any future acquisitions could result in dilution to our stockholders. See the risk factors entitled “Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new products and subscriptions could reduce our ability to compete and could harm our business” and “The issuance of additional stock in connection

with financings, acquisitions, investments, our stock incentive plans, the conversion of our 2023 Notes or exercise of the related Warrants to our Notes, or otherwise will dilute all other stockholders.” The occurrence of any of these risks could harm our business, operating results, and financial condition.

Because we depend on manufacturing partners to build and ship our products, we are susceptible to manufacturing and logistics delays and pricing fluctuations that could prevent us from shipping customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales and end-customers.

We depend on manufacturing partners, primarily Flextronics International, Ltd. (“Flex”), our electronics manufacturing service provider (“EMS provider”), as our sole source manufacturers for our product lines. Our reliance on these manufacturing partners reduces our control over the manufacturing process and exposes us to risks, including reduced control over quality assurance, product costs, product supply, timing and transportation risk. Our products are manufactured by our manufacturing partners at facilities located in the United States. Some of the components in our products are sourced either through Flex or directly by us from component suppliers outside the United States. The portion of our products that are sourced outside the United States may subject us to additional logistical risks (which may increase due to the global impact of COVID-19) or risks associated with complying with local rules and regulations in foreign countries. Significant changes to existing international trade agreements could lead to sourcing or logistics disruption resulting from import delays or the imposition of increased tariffs on our sourcing partners. For example, the United States and Chinese governments have each enacted, and discussed additional, import tariffs. These tariffs, depending on their ultimate scope and how they are implemented, could negatively impact our business by increasing our costs. For example, some components that we import for final manufacturing in the United States have been impacted by these recent tariffs. As a result, our costs have increased and we have raised, and may be required to further raise, prices on our hardware products. Each of these factors could severely impair our ability to fulfill orders.

In addition, we are subject to requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”) to diligence, disclose, and report whether or not our products contain minerals originating from the Democratic Republic of the Congo and adjoining countries, or conflict minerals. Although the SEC has provided guidance with respect to a portion of the conflict minerals filing requirements that may somewhat reduce our reporting practices, we have incurred and expect to incur additional costs to comply with these disclosure requirements, including costs related to determining the source of any of the relevant minerals and metals used in our products. These requirements could adversely affect the sourcing, availability, and pricing of minerals used in the manufacture of semiconductor devices or other components used in our products. We may also encounter end-customers who require that all of the components of our products be certified as conflict free. If we are not able to meet this requirement, such end-customers may choose not to purchase our products.

Our manufacturing partners typically fulfill our supply requirements on the basis of individual purchase orders. We do not have long-term contracts with these manufacturers that guarantee capacity, the continuation of particular pricing terms, or the extension of credit limits. Accordingly, they are not obligated to continue to fulfill our supply requirements and the prices we pay for manufacturing services could be increased on short notice. Our contract with Flex permits them to terminate the agreement for their convenience, subject to prior notice requirements. If we are required to change manufacturing partners, our ability to meet our scheduled product deliveries to our end-customers could be adversely affected, which could cause the loss of sales to existing or potential end-customers, delayed revenue or an increase in our costs which could adversely affect our gross margins. COVID-19 has resulted in certain cases to cause delays and challenges in obtaining components and inventory, as well as increases to freight and shipping costs, and may result in a material adverse effect on our results of operations. Any production interruptions for any reason, such as a natural disaster, epidemic or pandemic such as COVID-19, capacity shortages, or quality problems, at one of our manufacturing partners would negatively affect sales of our product lines manufactured by that manufacturing partner and adversely affect our business and operating results.

Managing the supply of our products and product components is complex. Insufficient supply and inventory may result in lost sales opportunities or delayed revenue, while excess inventory may harm our gross margins.

Our manufacturing partners procure components and build our products based on our forecasts, and we generally do not hold inventory for a prolonged period of time. These forecasts are based on estimates of future demand for our products, which are in turn based on historical trends and analyses from our sales and product management organizations, adjusted for overall market conditions. COVID-19 has made forecasting more difficult and we may experience increased challenges to our supply chain due to the unpredictability of COVID-19. In order to reduce manufacturing lead times and plan for adequate component supply, from time to time we may issue forecasts for components and products that are non-cancelable and non-returnable.

Our inventory management systems and related supply chain visibility tools may be inadequate to enable us to forecast accurately and effectively manage supply of our products and product components. If we ultimately determine that we have excess supply, we may have to reduce our prices and write-down inventory, which in turn could result in lower gross margins. If our actual component usage and product demand are lower than the forecast we provide to our manufacturing partners, we accrue for losses on manufacturing commitments in excess of forecasted demand. Alternatively, insufficient supply levels may lead to shortages that result in delayed product revenue or loss of sales opportunities altogether as potential end-customers turn to competitors’ products that are readily available. If we are unable to effectively manage our supply and inventory, our operating results could be adversely affected.

Because some of the key components in our products come from limited sources of supply, we are susceptible to supply shortages or supply changes, which could disrupt or delay our scheduled product deliveries to our end-customers and may result in the loss of sales and end-customers.

Our products rely on key components, including integrated circuit components, which our manufacturing partners purchase on our behalf from a limited number of component suppliers, including sole source providers. The manufacturing operations of some of our component suppliers are geographically concentrated in Asia and elsewhere, which makes our supply chain vulnerable to regional disruptions, such as natural disasters, fire, political instability, civil unrest, a power outage, or health risks, such as epidemics and pandemics like COVID-19, and as a result could impair the volume of components that we are able to obtain. Lead times for components may also be adversely impacted by factors outside of our control including COVID-19.

Further, we do not have volume purchase contracts with any of our component suppliers, and they could cease selling to us at any time. If we are unable to obtain a sufficient quantity of these components in a timely manner for any reason, sales of our products could be delayed or halted or we could be forced to expedite shipment of such components or our products at dramatically increased costs. Our component suppliers also change their selling prices frequently in response to market trends, including industry-wide increases in demand, and because we do not have volume purchase contracts with these component suppliers, we are susceptible to price fluctuations related to raw materials and components and may not be able to adjust our prices accordingly. Additionally, poor quality in any of the sole-sourced components in our products could result in lost sales or sales opportunities.

If we are unable to obtain a sufficient volume of the necessary components for our products on commercially reasonable terms or the quality of the components do not meet our requirements, we could also be forced to redesign our products and qualify new components from alternate component suppliers. The resulting stoppage or delay in selling our products and the expense of redesigning our products could result in lost sales opportunities and damage to customer relationships, which would adversely affect our business and operating results.

The sales prices of our products and subscriptions may decrease, which may reduce our gross profits and adversely impact our financial results.

The sales prices for our products and subscriptions may decline for a variety of reasons, including competitive pricing pressures, discounts, a change in our mix of products and subscriptions, anticipation of the introduction of new products or subscriptions, or promotional programs or pricing pressures as a result to the economic downturn resulting from COVID-19. Competition continues to increase in the market segments in which we participate, and we expect competition to further increase in the future, thereby leading to increased pricing pressures. Larger competitors with more diverse product and service offerings may reduce the price of products or subscriptions that compete with ours or may bundle them with other products and subscriptions. Additionally, although we price our products and subscriptions worldwide in U.S. dollars, currency fluctuations in certain countries and regions may negatively impact actual prices that channel partners and end-customers are willing to pay in those countries and regions. Furthermore, we anticipate that the sales prices and gross profits for our products will decrease over product life cycles. We cannot guarantee that we will be successful in developing and introducing new offerings with enhanced functionality on a timely basis, or that our product and subscription offerings, if introduced, will enable us to maintain our prices and gross profits at levels that will allow us to achieve and maintain profitability.

We generate a significant amount of revenue from sales to distributors, resellers, and end-customers outside of the United States, and we are therefore subject to a number of risks associated with international sales and operations.

We have a limited history of marketing, selling, and supporting our products and subscriptions internationally. We may experience difficulties in recruiting, training, managing, and retaining an international staff, and specifically staff related to sales management and sales personnel. We also may not be able to maintain successful strategic distributor relationships internationally or recruit additional companies to enter into strategic distributor relationships. Business practices in the international markets that we serve may differ from those in the United States and may require us in the future to include terms other than our standard terms related to payment, warranties, or performance obligations in end-customer contracts.

Additionally, our international sales and operations are subject to a number of risks, including the following:

- political, economic and social uncertainty around the world, health risks such as epidemics and pandemics like COVID-19, macroeconomic challenges in Europe, terrorist activities, and continued hostilities in the Middle East;
- greater difficulty in enforcing contracts and accounts receivable collection and longer collection periods;
- the uncertainty of protection for intellectual property rights in some countries;
- greater risk of unexpected changes in foreign and domestic regulatory practices, tariffs, and tax laws and treaties, including regulatory and trade policy changes adopted by the current administration or foreign countries in response to regulatory changes adopted by the current administration;
- risks associated with trade restrictions and foreign legal requirements, including the importation, certification, and localization of our products required in foreign countries;

- greater risk of a failure of foreign employees, channel partners, distributors, and resellers to comply with both U.S. and foreign laws, including antitrust regulations, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, U.S. or foreign sanctions regimes and export or import control laws, and any trade regulations ensuring fair trade practices, which non-compliance could include increased costs;
- heightened risk of unfair or corrupt business practices in certain geographies and of improper or fraudulent sales arrangements;
- increased expenses incurred in establishing and maintaining office space and equipment for our international operations;
- management communication and integration problems resulting from cultural and geographic dispersion; and
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business and related impact on sales cycles.

These and other factors could harm our future international revenues and, consequently, materially impact our business, operating results, and financial condition. The expansion of our existing international operations and entry into additional international markets will require significant management attention and financial resources. Our failure to successfully manage our international operations and the associated risks effectively could limit the future growth of our business.

Further, we are subject to risks associated with changes in economic and political conditions in countries in which we operate or sell our products and subscriptions. For instance, Brexit creates an uncertain political and economic environment in the U.K. and across E.U. member states for the foreseeable future, including during the transition period connected to Brexit. Any agreements arising out of negotiations which the U.K. government makes to retain access to E.U. markets may lead to greater restrictions on the free movement of goods, services, people and capital between the U.K. and the remaining E.U. member states. Our financial condition and operating results in the U.K. and the E.U. may be impacted by such uncertainty with potential disruptions to our relationships with existing and future customers, suppliers and employees all possibly having a material adverse impact on our business, prospects, financial condition and/or operating results.

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

Our sales contracts are primarily denominated in U.S. dollars, and therefore, substantially all of our revenue is not subject to foreign currency risk. However, including as a result of concerns regarding the impact of Brexit, there has been, and may continue to be, significant volatility in global stock markets and foreign currency exchange rates that result in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. The strengthening of the U.S. dollar increases the real cost of our platforms to our end-customers outside of the United States and may lead to delays in the purchase of our products, subscriptions, and support, and the lengthening of our sales cycle. If the U.S. dollar continues to strengthen, this could adversely affect our financial condition and operating results. In addition, increased international sales in the future, including through our channel partners and other partnerships, may result in greater foreign currency denominated sales, increasing our foreign currency risk.

Our operating expenses incurred outside the United States and denominated in foreign currencies are increasing and are subject to fluctuations due to changes in foreign currency exchange rates. If we are not able to successfully hedge against the risks associated with foreign currency fluctuations, our financial condition and operating results could be adversely affected. We have entered into forward contracts in an effort to reduce our foreign currency exchange exposure related to our foreign currency denominated expenditures. As of April 30, 2020, the total notional amount of our outstanding foreign currency forward contracts was \$106.0 million. For more information on our hedging transactions, refer to Note 5. Derivative Instruments in Part I, Item 1 of this Quarterly Report on Form 10-Q. The effectiveness of our existing hedging transactions and the availability and effectiveness of any hedging transactions we may decide to enter into in the future may be limited and we may not be able to successfully hedge our exposure, which could adversely affect our financial condition and operating results.

We are exposed to the credit and liquidity risk of some of our channel partners and end-customers, and to credit exposure in weakened markets, which could result in material losses.

Most of our sales are made on an open credit basis. Beyond our open credit arrangements, we have also experienced demands for customer financing due to COVID-19 and our competitors' offerings. The majority of these demands are currently facilitated by leasing and other financing arrangements provided by our distributors and resellers. To respond to this demand, we expect to increase our customer financing activities in the future.

We believe customer financing is a competitive factor in obtaining business. The loan financing arrangements provided by our distributors and resellers may include not only financing the acquisition of our products and services but also providing additional funds for other costs associated with network installation and integration of our products and services.

Our exposure to the credit risks relating to the financing activities described above may increase if our customers are adversely affected by a global economic downturn or periods of economic uncertainty. Although we have programs in place with our

distributors and resellers that are designed to monitor and mitigate these risks, we cannot guarantee these programs will be effective in reducing the credit risks, especially as we expand our business internationally. If we are unable to adequately control these risks, our business, operating results, and financial condition could be harmed.

In the past, we have experienced non-material losses due to bankruptcies among customers. If these losses increase due to COVID-19 or global economic conditions, they could harm our business and financial condition. A material portion of our sales is derived through our distributors. For the nine months ended April 30, 2020, four distributors represented 69.1% of our total revenue, and as of April 30, 2020, four distributors represented 58.0% of our gross accounts receivable. Additionally, to the degree that turmoil in the credit markets makes it more difficult for some customers to obtain financing, those customers' ability to pay could be adversely impacted, which in turn could have a material adverse impact on our business, operating results, and financial condition.

A portion of our revenue is generated by sales to government entities, which are subject to a number of challenges and risks.

Sales to government entities are subject to a number of risks. Selling to government entities can be highly competitive, expensive, and time-consuming, often requiring significant upfront time and expense without any assurance that these efforts will generate a sale. The substantial majority of our sales to date to government entities have been made indirectly through our channel partners. Government certification requirements for products and subscriptions like ours may change, thereby restricting our ability to sell into the federal government sector until we have attained the revised certification. If our products and subscriptions are late in achieving or fail to achieve compliance with these certifications and standards, or our competitors achieve compliance with these certifications and standards, we may be disqualified from selling our products and subscriptions to such governmental entity, or be at a competitive disadvantage, which would harm our business, operating results, and financial condition. Government demand and payment for our products and subscriptions may be impacted by government shutdowns, public sector budgetary cycles, contracting requirements, and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our products and subscriptions. Government entities may have statutory, contractual, or other legal rights to terminate contracts with our distributors and resellers for convenience or due to a default, and any such termination may adversely impact our future operating results. Governments routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government refusing to continue buying our products and subscriptions, a reduction of revenue, or fines or civil or criminal liability if the audit uncovers improper or illegal activities, which could adversely impact our operating results in a material way. Additionally, the U.S. government may require certain of the products that it purchases to be manufactured in the United States and other relatively high cost manufacturing locations, and we may not manufacture all products in locations that meet such requirements, affecting our ability to sell these products and subscriptions to the U.S. government.

Our ability to sell our products and subscriptions is dependent on the quality of our technical support services and those of our channel partners, and the failure to offer high-quality technical support services could have a material adverse effect on our end-customers' satisfaction with our products and subscriptions, our sales, and our operating results.

After our products and subscriptions are deployed within our end-customers' networks, our end-customers depend on our technical support services, as well as the support of our channel partners, to resolve any issues relating to our products. Our channel partners often provide similar technical support for third parties' products and may therefore have fewer resources to dedicate to the support of our products and subscriptions. If we or our channel partners do not effectively assist our end-customers in deploying our products and subscriptions, succeed in helping our end-customers quickly resolve post-deployment issues, or provide effective ongoing support, our ability to sell additional products and subscriptions to existing end-customers would be adversely affected and our reputation with potential end-customers could be damaged. While we have been able to meet increased demand for support services in the third quarter of fiscal 2020, failure to do so in the future could have a material adverse effect on our business.

Many larger enterprise, service provider, and government entity end-customers have more complex networks and require higher levels of support than smaller end-customers. If we or our channel partners fail to meet the requirements of these larger end-customers, it may be more difficult to execute on our strategy to increase our coverage with larger end-customers. Additionally, if our channel partners do not effectively provide support to the satisfaction of our end-customers, we may be required to provide direct support to such end-customers, which would require us to hire additional personnel and to invest in additional resources. It can take several months to recruit, hire, and train qualified technical support employees. We may not be able to hire such resources fast enough to keep up with unexpected demand, particularly if the sales of our products exceed our internal forecasts. As a result, our ability, and the ability of our channel partners to provide adequate and timely support to our end-customers will be negatively impacted, and our end-customers' satisfaction with our products and subscriptions will be adversely affected. Additionally, to the extent that we may need to rely on our sales engineers to provide post-sales support while we are ramping our support resources, our sales productivity will be negatively impacted, which would harm our revenues. Our failure or our channel partners' failure to provide and maintain high-quality support services could have a material adverse effect on our business, financial condition, and operating results.

Claims by others that we infringe their proprietary technology or other rights could harm our business.

Companies in the enterprise security industry own large numbers of patents, copyrights, trademarks, domain names, and trade secrets and frequently enter into litigation based on allegations of infringement, misappropriation, or other violations of intellectual property or other rights. Third parties have asserted and may in the future assert claims of infringement of intellectual property rights

against us. For example, in December 2011, Juniper, one of our competitors, filed a lawsuit against us alleging patent infringement. In September 2013, we filed a lawsuit against Juniper alleging patent infringement. In May 2014, we entered into a Settlement, Release and Cross-License Agreement with Juniper to resolve all pending disputes between Juniper and us, including dismissal of all pending litigation.

Third parties may also assert such claims against our end-customers or channel partners, whom our standard license and other agreements obligate us to indemnify against claims that our products and subscriptions infringe the intellectual property rights of third parties. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited, that they have divulged proprietary or other confidential information, or that their former employers own their inventions or other work product. Furthermore, we may be unaware of the intellectual property rights of others that may cover some or all of our technology or products and subscriptions. As the number of products and competitors in our market increases and overlaps occur, infringement claims may increase. While we intend to increase the size of our patent portfolio, our competitors and others may now and in the future have significantly larger and more mature patent portfolios than we have. In addition, litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own patents may therefore provide little or no deterrence or protection. In addition, we have not registered our trademarks in all of our geographic markets and failure to secure those registrations could adversely affect our ability to enforce and defend our trademark rights. Any claim of infringement by a third party, even those without merit, could cause us to incur substantial costs defending against the claim, could distract our management from our business, and could require us to cease use of such intellectual property. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. A successful claimant could secure a judgment or we may agree to a settlement that prevents us from distributing certain products or performing certain services or that requires us to pay substantial damages, royalties, or other fees. Any of these events could seriously harm our business, financial condition, and operating results.

Our proprietary rights may be difficult to enforce or protect, which could enable others to copy or use aspects of our products or subscriptions without compensating us.

We rely and expect to continue to rely on a combination of confidentiality and license agreements with our employees, consultants, and third parties with whom we have relationships, as well as trademark, copyright, patent, and trade secret protection laws, to protect our proprietary rights. We have filed various applications for certain aspects of our intellectual property. Valid patents may not issue from our pending applications, and the claims eventually allowed on any patents may not be sufficiently broad to protect our technology or products and subscriptions. We cannot be certain that we were the first to make the inventions claimed in our pending patent applications or that we were the first to file for patent protection, which could prevent our patent applications from issuing as patents or invalidate our patents following issuance. Additionally, the process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Any issued patents may be challenged, invalidated or circumvented, and any rights granted under these patents may not actually provide adequate defensive protection or competitive advantages to us. Additional uncertainty may result from changes to patent-related laws and court rulings in the United States and other jurisdictions. As a result, we may not be able to obtain adequate patent protection or effectively enforce any issued patents.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or subscriptions or obtain and use information that we regard as proprietary. We generally enter into confidentiality or license agreements with our employees, consultants, vendors, and end-customers, and generally limit access to and distribution of our proprietary information. However, we cannot be certain 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. Because we may be an attractive target for computer hackers, we may have a greater risk of unauthorized access to, and misappropriation of, our proprietary information. In addition, the laws of some foreign countries do not protect our proprietary rights to as great an extent as the laws of the United States, and many foreign countries do not enforce these laws as diligently as government agencies and private parties in the United States. From time to time, we may need to take legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results, and financial condition. Attempts to enforce our rights against third parties could also provoke these third parties to assert their own intellectual property or other rights against us, or result in a holding that invalidates or narrows the scope of our rights, in whole or in part. If we are unable to protect our proprietary rights (including aspects of our software and products protected other than by patent rights), we may find ourselves at a competitive disadvantage to others who need not incur the additional expense, time, and effort required to create the innovative products that have enabled us to be successful to date. Any of these events would have a material adverse effect on our business, financial condition, and operating results.

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

Our products and subscriptions contain software modules licensed to us by third-party authors under “open source” licenses. Some open source licenses contain requirements that we make available applicable source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar products or subscriptions with lower development effort and time and ultimately could result in a loss of product sales for us.

Although we monitor our use of open source software to avoid subjecting our products and subscriptions to conditions we do not intend, the terms of many open source licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products and subscriptions. From time to time, there have been claims against companies that distribute or use open source software in their products and subscriptions, asserting that open source software infringes the claimants’ intellectual property rights. We could be subject to suits by parties claiming infringement of intellectual property rights in what we believe to be licensed open source software. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our products and subscriptions on terms that are not economically feasible, to reengineer our products and subscriptions, to discontinue the sale of our products and subscriptions if reengineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, operating results, and financial condition.

In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or assurance of title or controls on origin of the software. In addition, many of the risks associated with usage of open source software, such as the lack of warranties or assurances of title, cannot be eliminated, and could, if not properly addressed, negatively affect our business. We have established processes to help alleviate these risks, including a review process for screening requests from our development organizations for the use of open source software, but we cannot be sure that our processes for controlling our use of open source software in our products and subscriptions will be effective.

We license technology from third parties, and our inability to maintain those licenses could harm our business.

We incorporate technology that we license from third parties, including software, into our products and subscriptions. 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 and subscriptions. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. Some of our agreements with our licensors may be terminated for convenience by them. We may also be subject to additional fees or be required to obtain new licenses if any of our licensors allege that we have not properly paid for such licenses or that we have improperly used the technologies under such licenses, and such licenses may not be available on terms acceptable to us or at all. If we are unable to continue to license any of this technology because of intellectual property infringement claims brought by third parties against our licensors or against us, or claims against us by our licensors, or if we are unable to continue our license agreements or enter into new licenses on commercially reasonable terms, our ability to develop and sell products and subscriptions containing such technology would be severely limited, and our business could be harmed. Additionally, if we are unable to license necessary technology from third parties, we may be forced to acquire or develop alternative technology, which we may be unable to do in a commercially feasible manner or at all, and we may be required to use alternative technology of lower quality or performance standards. This would limit and delay our ability to offer new or competitive products and subscriptions and increase our costs of production. As a result, our margins, market share, and operating results could be significantly harmed.

We face risks associated with having operations and employees located in Israel.

As a result of various of our acquisitions, including LightCyber, Secdo, PureSec and Twistlock, we have offices and employees located in Israel. Accordingly, political, economic, and military conditions in Israel directly affect our operations. The future of peace efforts between Israel and its Arab neighbors remains uncertain. There has been a significant increase in hostilities and political unrest between Hamas and Israel in the past few years. The effects of these hostilities and violence on the Israeli economy and our operations in Israel are unclear, and we cannot predict the effect on us of further increases in these hostilities or future armed conflict, political instability or violence in the region. Current or future tensions and conflicts in the Middle East could adversely affect our business, operating results, financial condition and cash flows.

In addition, many of our employees in Israel are obligated to perform annual reserve duty in the Israeli military and are subject to being called for active duty under emergency circumstances. We cannot predict the full impact of these conditions on us in the future, particularly if emergency circumstances or an escalation in the political situation occurs. If many of our employees in Israel are called for active duty for a significant period of time, our operations and our business could be disrupted and may not be able to function at full capacity. Any disruption in our operations in Israel could adversely affect our business.

Our failure to adequately protect personal information could have a material adverse effect on our business.

A wide variety of provincial, state, national, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer, and other processing of personal data. These data protection and privacy-related laws and regulations are evolving and being tested in courts and may result in ever-increasing regulatory and public scrutiny as well as escalating levels of enforcement and sanctions. Further, the interpretation and application of foreign laws and regulations in many cases is uncertain, and our legal and regulatory obligations in foreign jurisdictions are subject to frequent and unexpected changes, including the potential for various regulatory or other governmental bodies to enact new or additional laws or regulations, to issue rulings that invalidate prior laws or regulations, or to increase penalties significantly.

For example, the E.U. General Data Protection Regulation (“GDPR”), which became effective in May 2018, imposes more stringent data protection requirements, and provides for greater penalties for noncompliance, than E.U. laws that previously applied. The GDPR requires, among other things, that personal data only be transferred outside of the E.U. to certain jurisdictions, including the United States, if steps are taken to legitimize those data transfers. We rely on the E.U.-U.S. and Swiss-U.S. Privacy Shield programs, and the use of model contractual clauses approved by the E.U. Commission, to legitimize these transfers. Both the E.U.-U.S. Privacy Shield and these model contractual clauses have been subject to legal challenge, however, and it is unclear what effect these challenges will have and whether the means we presently use will continue as appropriate means for us to legitimize personal data transfers from the E.U. or Switzerland.

In the U.K., a Data Protection Act that substantially implements the GDPR also became law in May 2018. It remains unclear, however, how U.K. data protection laws or regulations will develop in the medium to longer term and how data transfers to and from the United Kingdom will be regulated after Brexit. Additionally, the California Consumer Privacy Act (“CCPA”) recently went into effect on January 1, 2020 and requires, among other things, covered companies to provide new disclosures to California consumers, and afford such consumers new abilities to opt-out of certain sales of personal information, and also affords a private right of action to individuals affected by a data breach, if the breach was caused by a lack of reasonable security. In addition, regulations by the California Attorney General are currently in draft proposal. It remains unclear what, if any, additional modifications will be made to this legislation or how it will be interpreted. The effects of the CCPA potentially are significant, however, and may require us to modify our data processing practices and policies and to incur substantial costs and expenses for compliance. We may also from time to time be subject to, or face assertions that we are subject to, additional obligations relating to personal data by contract or due to assertions that self-regulatory obligations or industry standards apply to our practices. 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. Further, 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. Each of these privacy, security, and data protection laws and regulations, and any other such changes or new laws or regulations, could impose significant limitations, or require changes to our business model or practices or growth strategy, which may increase our compliance expenses and make our business more costly or less efficient to conduct.

Our actual or perceived failure to comply with applicable laws and regulations or other obligations to which we are now or which we may be subject relating to personal data, or to protect personal data from unauthorized acquisition, use or other processing, could result in consequences such as enforcement actions and regulatory investigations against us, fines, public censure, claims for damages by end-customers and other affected individuals, damage to our reputation and loss of goodwill (both in relation to existing end-customers and prospective end-customers), any of which could have a material adverse effect on our operations, financial performance, and business. Evolving and changing definitions of personal data and personal information, within the E.U., the United States, and elsewhere, especially relating to classification of Internet Protocol (“IP”) addresses, machine identification, location data, and other information, may limit or inhibit our ability to operate or expand our business, including limiting strategic partnerships that may involve the sharing or uses of data, and may require significant expenditures and efforts in order to comply. Even the perception of privacy, data protection or information security concerns, whether or not valid, may harm our reputation and inhibit adoption of our products and subscriptions by current and future end-customers.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

Because we incorporate encryption technology into our products, certain of our products are subject to U.S. export controls and may be exported outside the United States only with the required export license or through an export license exception. If we were to fail to comply with U.S. export licensing requirements, U.S. customs regulations, U.S. economic sanctions, or other laws, we could be subject to substantial civil and criminal penalties, including fines, incarceration for responsible employees and managers, and the possible loss of export or import privileges. Obtaining the necessary export license for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products to U.S. embargoed or sanctioned countries, governments, and persons. Even though we take precautions to ensure that our channel partners comply with all relevant regulations, any failure by our channel partners to comply with such regulations could have negative consequences for us, including reputational harm, government investigations, and penalties.

In addition, various countries regulate the import of certain encryption technology, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our products or could limit our end-customers' ability to implement our products in those countries. Changes in our products or changes in export and import regulations may create delays in the introduction of our products into international markets, prevent our end-customers with international operations from deploying our products globally or, in some cases, prevent or delay the export or import of our products to certain countries, governments, or persons altogether. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential end-customers with international operations. Any decreased use of our products or limitation on our ability to export to or sell our products in international markets would likely adversely affect our business, financial condition, and operating results.

Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new products and subscriptions could reduce our ability to compete and could harm our business.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new features to enhance our platforms, improve our operating infrastructure, or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional equity or equity-linked financing, our stockholders may experience significant dilution of their ownership interests and the market price of our common stock could decline. For example, in June 2014, we issued our 2019 Notes and in July 2018, we issued our 2023 Notes. None of our 2019 Notes remained outstanding as of July 31, 2019. However, any conversion of the outstanding 2023 Notes into common stock will dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of such 2023 Notes. See the risk factor entitled "The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans, the conversion of our 2023 Notes or exercise of the related Warrants to our Notes, or otherwise will dilute all other stockholders." The holders of our 2023 Notes have priority over holders of our common stock, and if we engage in future debt financings, the holders of such additional debt would also have priority over the holders of our common stock. Current and future indebtedness may also contain terms that, among other things, restrict our ability to incur additional indebtedness. We may also be required to take other actions that would otherwise be in the interests of the debt holders and would require us to maintain specified liquidity or other ratios, any of which could harm our business, operating results, and financial condition. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be adversely affected.

We have a corporate structure aligned with the international nature of our business activities, and if we do not achieve increased tax benefits as a result of our corporate structure, our financial condition and operating results could be adversely affected.

We have reorganized our corporate structure and intercompany relationships to more closely align with the international nature of our business activities. This corporate structure may allow us to reduce our overall effective tax rate through changes in how we use our intellectual property, international procurement, and sales operations. This corporate structure may also allow us to obtain financial and operational efficiencies. These efforts require us to incur expenses in the near term for which we may not realize related benefits. If the structure is not accepted by the applicable tax authorities, if there are any changes in, or interpretations of, domestic and international tax laws that negatively impact the structure, or if we do not operate our business consistent with the structure and applicable tax provisions, we may fail to achieve the reduction in our overall effective tax rate and the other financial and operational efficiencies that we anticipate as a result of the structure and our future financial condition and operating results may be negatively impacted. In addition, we continue to evaluate our corporate structure in light of current and pending tax legislation, and any changes to our corporate structure may require us to incur additional expenses and may impact our overall effective tax rate.

We may have exposure to greater than anticipated tax liabilities.

Our income tax obligations are based in part on our corporate structure and intercompany arrangements, including the manner in which we develop, value, and use our intellectual property and the valuations of our intercompany transactions. The tax laws applicable to our business, including the laws of the United States and other jurisdictions, are subject to interpretation and certain jurisdictions may aggressively interpret their laws in an effort to raise additional tax revenue. The tax authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology or intercompany arrangements, which could increase our worldwide effective tax rate and harm our financial position and operating results. 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. Further, 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 condensed consolidated financial statements and may materially affect our financial results in the period or periods for which such determination is made.

In addition, our future income tax obligations could be adversely affected by changes in, or interpretations of, tax laws in the United States or in other jurisdictions in which we operate. In the United States, the Tax Cuts and Jobs Act contains many significant changes to the U.S. federal income tax laws, the consequences of which, to us, could have a material impact on the value of our deferred tax assets and could increase our future U.S. income tax expense. Furthermore, changes to the taxation of undistributed foreign earnings, if any, could change our future intentions regarding reinvestment of such earnings. The foregoing items could have a material adverse effect on our business, cash flows, operating results, or financial condition.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in our condensed consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue, and expenses that are not readily apparent from other sources. For more information, refer to the section entitled “Critical Accounting Estimates” in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part I, Item 2 of this Quarterly Report on Form 10-Q. In general, if our estimates, judgments or assumptions relating to our critical accounting policies change or if actual circumstances differ from our estimates, judgments or assumptions, including uncertainty in the current economic environment due to COVID-19, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

Failure to comply with governmental laws and regulations could harm our business.

Our business is subject to regulation by various federal, state, local, and foreign governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, product safety, environmental laws, consumer protection laws, privacy and data-protection laws, anti-bribery laws (including the U.S. Foreign Corrupt Practices Act and the U.K. Anti-Bribery Act), import/export controls, federal securities laws, and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, mandatory product recalls, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, or injunctions. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation resulting from any alleged noncompliance, our business, operating results, and financial condition could be materially adversely affected. In addition, responding to any action will likely result in a significant diversion of management’s attention and resources and an increase in professional fees. Enforcement actions, litigation, and sanctions could harm our business, operating results, and financial condition.

If we fail to comply with environmental requirements, our business, financial condition, operating results, and reputation could be adversely affected.

We are subject to various environmental laws and regulations including laws governing the hazardous material content of our products and laws relating to the collection of and recycling of electrical and electronic equipment. Examples of these laws and regulations include the E.U. Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (“RoHS”) and the E.U. Waste Electrical and Electronic Equipment Directive (“WEEE Directive”), as well as the implementing legislation of the E.U. member states. Similar laws and regulations have been passed or are pending in China, South Korea, Norway, and Japan and may be enacted in other regions, including in the United States, and we are, or may in the future be, subject to these laws and regulations.

The E.U. RoHS and the similar laws of other jurisdictions limit the content of certain hazardous materials such as lead, mercury, and cadmium in the manufacture of electrical equipment, including our products. Our current products comply with the E.U. RoHS requirements. However, if there are changes to this or other laws (or their interpretation) or if new similar laws are passed in other jurisdictions, we may be required to reengineer our products to use components compatible with these regulations. This reengineering and component substitution could result in additional costs to us or disrupt our operations or logistics.

The WEEE Directive requires electronic goods producers to be responsible for the collection, recycling, and treatment of such products. Changes in interpretation of the directive may cause us to incur costs or have additional regulatory requirements to meet in the future in order to comply with this directive, or with any similar laws adopted in other jurisdictions.

We are also subject to environmental laws and regulations governing the management of hazardous materials, which we use in small quantities in our engineering labs. Our failure to comply with past, present, and future similar laws could result in reduced sales of our products, substantial product inventory write-offs, reputational damage, penalties, and other sanctions, any of which could harm our business and financial condition. We also expect that our products will be affected by new environmental laws and regulations on an ongoing basis. To date, our expenditures for environmental compliance have not had a material impact on our operating results or cash flows, and although we cannot predict the future impact of such laws or regulations, they will likely result in additional costs and

may increase penalties associated with violations or require us to change the content of our products or how they are manufactured, which could have a material adverse effect on our business, operating results, and financial condition.

Our business is subject to the risks of earthquakes, fire, power outages, floods, health risks and other catastrophic events, and to interruption by man-made problems such as terrorism.

Both our corporate headquarters and the location where our products are manufactured are located in the San Francisco Bay Area, a region known for seismic activity. In addition, other natural disasters, such as fire or floods, a significant power outage, telecommunications failure, terrorism, an armed conflict, cyberattacks, epidemics and pandemics such as COVID-19, or other geo-political unrest could affect our supply chain, manufacturers, logistics providers, channel partners, or end-customers or the economy as a whole and such disruption could impact our shipments and sales. These risks may be further increased if the disaster recovery plans for us and our suppliers prove to be inadequate. To the extent that any of the above should result in delays or cancellations of customer orders, the loss of customers, or the delay in the manufacture, deployment, or shipment of our products, our business, financial condition, and operating results would be adversely affected.

Risks Related to Our 2023 Notes

We may not have the ability to raise the funds necessary to settle conversions of our 2023 Notes, repurchase our 2023 Notes upon a fundamental change or repay our 2023 Notes in cash at their maturity, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of our 2023 Notes.

Holders of our 2023 Notes will have the right under the indenture governing our 2023 Notes to require us to repurchase all or a portion of their 2023 Notes upon the occurrence of a fundamental change before the maturity date at a repurchase price equal to 100% of the principal amount of our 2023 Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date. In addition, upon conversion of our 2023 Notes, we will be required to make cash payments for each \$1,000 in principal amount of our 2023 Notes converted of at least the lesser of \$1,000 and the sum of the daily conversion values for such 2023 Notes. Moreover, we will be required to repay our 2023 Notes in cash at their maturity, unless earlier converted or repurchased. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of our 2023 Notes surrendered or pay cash with respect to our 2023 Notes being converted.

In addition, our ability to repurchase or to pay cash upon conversion of our 2023 Notes may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase our 2023 Notes at a time when the repurchase is required by the indenture governing our 2023 Notes or to pay cash upon conversion of our 2023 Notes as required by the indenture would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the payment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase our 2023 Notes or to pay cash upon conversion of our 2023 Notes.

We may still incur substantially more debt or take other actions that would diminish our ability to make payments on our 2023 Notes when due.

We and our subsidiaries may be able to incur substantial additional debt in the future, subject to the restrictions contained in our debt instruments, some of which may be secured debt. We are not restricted under the terms of the indenture governing our 2023 Notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of such indenture governing our 2023 Notes that could have the effect of diminishing our ability to make payments on our 2023 Notes when due. While the terms of any future indebtedness we may incur could restrict our ability to incur additional indebtedness, any such restrictions will indirectly benefit holders of our 2023 Notes only to the extent any such indebtedness or credit facility is not repaid or does not mature while our 2023 Notes are outstanding.

Risks Related to Our Common Stock

Our actual operating results may differ significantly from our guidance.

From time to time, we have released, and may continue to release, guidance in our quarterly earnings releases, quarterly earnings conference calls, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, has been and will be based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person expresses any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our

control, such as COVID-19, and are based upon specific assumptions with respect to future business decisions, some of which will change. The rapidly evolving market in which we operate may make it difficult to evaluate our current business and our future prospects, including our ability to plan for and model future growth. We intend to state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed. However, actual results will vary from our guidance and the variations may be material. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook as of the date of release with analysts and investors. We do not accept any responsibility for any projections or reports published by any such persons. Investors are urged not to rely upon our guidance in making an investment decision regarding our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this “Risk Factors” section in this Quarterly Report on Form 10-Q could result in our actual operating results being different from our guidance, and the differences may be adverse and material.

The market price of our common stock historically has been volatile and the value of your investment could decline.

The market price of our common stock has been volatile since our initial public offering (“IPO”) in July 2012. The reported high and low sales prices of our common stock during the last 12 months have ranged from \$125.47 to \$251.11, as measured through May 14, 2020. The market price of our common stock may fluctuate widely in response to various factors, some of which are beyond our control. These factors include:

- announcements of new products, subscriptions or technologies, commercial relationships, strategic partnerships, acquisitions or other events by us or our competitors;
- price and volume fluctuations in the overall stock market from time to time;
- news announcements that affect investor perception of our industry, including reports related to the discovery of significant cyberattacks;
- significant volatility in the market price and trading volume of technology companies in general and of companies in our industry;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- whether our operating results meet the expectations of securities analysts or investors;
- actual or anticipated changes in the expectations of securities analysts or investors, whether as a result of our forward- looking statements, our failure to meet such expectations or otherwise;
- inaccurate or unfavorable research reports about our business and industry published by securities analysts or reduced coverage of our company by securities analysts;
- litigation involving us, our industry, or both;
- actions instituted by activist shareholders or others;
- regulatory developments in the United States, foreign countries or both;
- major catastrophic events, such as COVID-19;
- sales or repurchases of large blocks of our common stock or substantial future sales by our directors, executive officers, employees and significant stockholders;
- sales of our common stock by investors who view our 2023 Notes as a more attractive means of equity participation in us;
- hedging or arbitrage trading activity involving our common stock as a result of the existence of our 2023 Notes;
- departures of key personnel; or
- economic uncertainty around the world.

The market price of our common stock could decline for reasons unrelated to our business, operating results, or financial condition and as a result of events that do not directly affect us. In the past, following periods of volatility in the market price of a company’s securities, securities class action litigation has often been brought against that company. Securities litigation could result in substantial costs and divert our management’s attention and resources from our business. This could have a material adverse effect on our business, operating results, and financial condition.

The convertible note hedge and warrant transactions may affect the value of our common stock.

In connection with the sale of both our 2019 Notes and 2023 Notes (together the “Notes”), we entered into convertible note hedge transactions (the “Note Hedges”) with certain counterparties. In connection with each such sale of the Notes, we also entered into warrant transactions with the counterparties pursuant to which we sold warrants (the “Warrants”) for the purchase of our common stock. The Note Hedges for our 2019 Notes have expired. The Note Hedges for our 2023 Notes are expected generally to reduce the potential dilution to our common stock upon any conversion of our 2023 Notes and/or offset any cash payments we are required to make in excess of the principal amount of any such converted 2023 Notes. The Warrants could separately have a dilutive effect to the extent that the market price per share of our common stock exceeds the applicable strike price of the Warrants unless, subject to certain conditions, we elect to cash settle such Warrants.

The applicable counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the outstanding 2023 Notes (and are likely to do so during any applicable observation period related to a conversion of our 2023 Notes). This activity could also cause or avoid an increase or a decrease in the market price of our common stock or our 2023 Notes, which could affect a note holder’s ability to convert its 2023 Notes and, to the extent the activity occurs during any observation period related to a conversion of our 2023 Notes, it could affect the amount and value of the consideration that the note holder will receive upon conversion of our 2023 Notes.

We do not make any representation or prediction as to the direction or magnitude of any potential effect that the transactions described above may have on the price of our 2023 Notes or our common stock. In addition, we do not make any representation that the counterparties or their respective affiliates will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans, the conversion of our 2023 Notes or exercise of the related Warrants to our Notes, or otherwise will dilute all other stockholders.

Our amended and restated certificate of incorporation authorizes us to issue up to 1.0 billion shares of common stock and up to 100.0 million shares of preferred stock with such rights and preferences as may be determined by our board of directors. Subject to compliance with applicable rules and regulations, we may issue shares of common stock or securities convertible into shares of our common stock from time to time in connection with a financing, acquisition, investment, our stock incentive plans, the conversion of our 2023 Notes, the settlement of our Warrants related to each such series of Notes, or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and cause the market price of our common stock to decline.

We cannot guarantee that our share repurchase program or our recently announced accelerated share repurchase transaction will be fully consummated or that they will enhance shareholder value, and share repurchases could affect the price of our common stock.

In February 2019, our board of directors authorized a \$1.0 billion share repurchase program which will be funded from available working capital. The repurchase authorization will expire on December 31, 2020. In February 2020, our board of directors approved the repurchase of \$1.0 billion of our common stock through an accelerated share repurchase (“ASR”) transaction, which we entered into during the three months ended April 30, 2020. This ASR transaction is in addition to our share repurchase program. Although our board of directors has authorized a share repurchase program and an ASR transaction, they do not obligate us to repurchase any specific dollar amount or to acquire any specific number of shares. The share repurchase program and the ASR transaction could affect the price of our common stock, increase volatility and diminish our cash reserves. In addition, the program may be suspended or terminated at any time, and the ASR transaction may not be consummated, which may result in a decrease in the price of our common stock.

We are subject to risks associated with our strategic investments. Impairments in the value of our investments could negatively impact our financial results.

In July 2017, we formed the \$20.0 million Palo Alto Networks Venture Fund. The fund is aimed at seed-, early-, and growth-stage security companies with a cloud-based application approach. We may not realize a return on our capital investments. Many such private companies generate net losses and the market for their products, services or technologies may be slow to develop, and, therefore, are dependent on the availability of later rounds of financing from banks or investors on favorable terms to continue their operations. The financial success of our investment in any company is typically dependent on a liquidity event, such as a public offering, acquisition or other favorable market event reflecting appreciation in the cost of our initial investment. The capital markets for public offerings and acquisitions are dynamic and the likelihood of liquidity events for the companies we have invested in, and intend to invest in, could significantly change. Further, valuations of privately-held companies are inherently complex due to the lack of readily available market data and as such, the basis for these valuations is subject to the timing and accuracy of the data received from these companies. If we determine that any of our investments in such companies have experienced a decline in value, we may be required to record an impairment, which could be material and negatively impact our financial results. All of our investments are subject to a risk of a partial or total loss of investment capital.

We do not intend to pay dividends for the foreseeable future.

We have never declared or paid any dividends on our common stock. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. As a result, you may only receive a return on your investment in our common stock if the market price of our common stock increases.

The requirements of being a public company may strain our resources, divert management's attention, and affect our ability to attract and retain qualified board members.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of the New York Stock Exchange ("NYSE"), and other applicable securities rules and regulations. Compliance with these rules and regulations have increased our legal and financial compliance costs, made some activities more difficult, time-consuming or costly, and increased demand on our systems and resources. Among other things, the Exchange Act requires that we file annual, quarterly, and current reports with respect to our business and operating results. In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to meet the requirements of this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could harm our business and operating results. Although we have already hired additional employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

In addition, changing laws, regulations, and standards related to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time-consuming. These laws, regulations, and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations, and standards, and this investment may result in increased general and administrative expense and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations, and standards differ from the activities intended by regulatory or governing bodies, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We are obligated to maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or this internal control may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

While we were able to determine in our management's report for fiscal 2019 that our internal control over financial reporting is effective, as well as provide an unqualified attestation report from our independent registered public accounting firm to that effect, we may not be able to complete our evaluation, testing, and any required remediation in a timely fashion, may be unable to assert that our internal controls are effective, or our independent registered public accounting firm may not be able to formally attest to the effectiveness of our internal control over financial reporting in the future. In the event that our chief executive officer, chief financial officer, or independent registered public accounting firm determines in the future that our internal control over financial reporting is not effective as defined under Section 404, we could be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments and causing investor perceptions to be adversely affected and potentially resulting in a decline in the market price of our stock.

Our charter documents and Delaware law, as well as certain provisions contained in the indentures governing our 2023 Notes, could discourage takeover attempts and lead to management entrenchment, which could also reduce the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change in control of our company or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- establish that our board of directors is divided into three classes, Class I, Class II and Class III, with three-year staggered terms;
- authorize our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval;
- provide our board of directors with the exclusive right to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director;
- prohibit our stockholders from taking action by written consent;

- specify that special meetings of our stockholders may be called only by the chairman of our board of directors, our president, our secretary, or a majority vote of our board of directors;
- require the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the issuance of preferred stock and management of our business or our amended and restated bylaws;
- authorize our board of directors to amend our bylaws by majority vote; and
- establish advance notice procedures with which our stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for our stockholders to replace members of our board of directors, which is responsible for appointing the members of management. In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time. Additionally, certain provisions contained in the indenture governing our 2023 Notes could make it more difficult or more expensive for a third party to acquire us. The application of Section 203 or certain provisions contained in the indenture governing our 2023 Notes also could have the effect of delaying or preventing a change in control of us. Any of these provisions could, under certain circumstances, depress the market price of our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS**Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

The following table summarizes stock repurchases during the three months ended April 30, 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 ⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs ⁽¹⁾
February 1, 2020 to February 29, 2020 ⁽²⁾⁽³⁾	4.2	\$ 189.61	4.2	\$ 801.9
March 1, 2020 to March 31, 2020 ⁽²⁾	0.0	\$ 159.43	0.0	\$ 801.9
April 1, 2020 to April 30, 2020 ⁽²⁾	0.0	\$ 194.38	0.0	\$ 801.9
Total	4.2	\$ 189.57	4.2	

(1) On February 26, 2019, we announced that our board of directors authorized a \$1.0 billion share repurchase program which will be funded from available working capital. Repurchases may be made at management's discretion from time to time on the open market, through privately negotiated transactions, transactions structured through investment banking institutions, block purchase techniques, 10b5-1 trading plans, or a combination of the foregoing. The repurchase authorization will expire on December 31, 2020, and may be suspended or discontinued at any time. On February 24, 2020, we announced that our board of directors approved the repurchase of \$1.0 billion of our common stock through an accelerated share repurchase ("ASR") transaction. This ASR is in addition to our above-mentioned share repurchase authorization.

(2) Includes shares of restricted common stock delivered by certain employees upon vesting of equity awards to satisfy tax withholding requirements. The number of shares delivered by these employees to satisfy tax withholding requirements during the period was not significant.

(3) Includes repurchases under our ASR transaction. During the three months ended April 30, 2020, we made an up-front payment of \$1.0 billion pursuant to the ASR to receive an initial delivery of approximately 80% of the common stock, or 4.2 million shares valued at \$800.0 million. The final number of shares of our common stock to be ultimately received under the ASR will be based upon the volume weighted average price of our common stock during the repurchase period, which is expected to be completed in our fourth quarter of fiscal 2020.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.2	Amended and Restated Bylaws of the Registrant	10-Q	001-35594	3.2	February 25, 2020
10.1	Fixed Dollar Accelerated Share Repurchase Transaction Confirmation, dated February 26, 2020 between Palo Alto Networks, Inc. and Morgan Stanley & Co. LLC				
31.1	Certification of the Chief Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of the Chief Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.				
32.1 †	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2 †	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101	The following financial information from Palo Alto Networks, Inc.'s Quarterly Report on Form 10-Q for the three months ended April 30, 2020 formatted in Inline XBRL includes: (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Operations, (iii) Condensed Consolidated Statements of Comprehensive Loss, (iv) Condensed Consolidated Statements of Stockholders' Equity, (v) Condensed Consolidated Statements of Cash Flows, and (vi) Notes to the Condensed Consolidated Financial Statements.				
104	Cover Page Interactive Data File—(formatted as Inline XBRL and contained in Exhibit 101).				

* Indicates a management contract or compensatory plan or arrangement.

† The certifications attached as Exhibit 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Palo Alto Networks, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

SIGNATURES

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

Date: May 21, 2020

PALO ALTO NETWORKS, INC.

By: /s/ KATHLEEN BONANNO
Kathleen Bonanno
Chief Financial Officer
(Duly Authorized Officer and Principal
Financial Officer)

Date: May 21, 2020

PALO ALTO NETWORKS, INC.

By: /s/ JEAN COMPEAU
Jean Compeau
Chief Accounting Officer
(Duly Authorized Officer and Principal
Accounting Officer)

February 26, 2020

Fixed Dollar Accelerated Share Repurchase Transaction

Palo Alto Networks, Inc.
4401 Great America Parkway
Santa Clara, California 95054
Attention: Catherine Portman
e-mail: cportman@paloaltonetworks.com

Dear Sir/Madam:

The purpose of this letter agreement (this “**Confirmation**”) is to confirm the terms and conditions of the Transaction entered into between Morgan Stanley & Co. LLC (“**MSCO**” or “**Dealer**”) and Palo Alto Networks, Inc., a Delaware corporation (“**Issuer**”), on the Trade Date specified below (the “**Transaction**”). This confirmation constitutes a “Confirmation” as referred to in the Agreement specified below.

The definitions and provisions contained in the 2002 ISDA Equity Derivatives Definitions (as published by the International Swaps and Derivatives Association, Inc. (“**ISDA**”)) (the “**Equity Definitions**”) are incorporated into this Confirmation. The Transaction is a Share Forward Transaction for purposes of the Equity Definitions. Any reference to a currency shall have the meaning contained in Section 1.7 of the 2006 ISDA Definitions, as published by ISDA.

This Confirmation evidences a complete and binding agreement between MSCO and Issuer as to the terms of the Transaction to which this Confirmation relates and shall supersede all prior or contemporaneous written or oral communications with respect thereto. This Confirmation shall be subject to an agreement (the “**Agreement**”) in the form of the ISDA 2002 Master Agreement as if MSCO and Issuer had executed an agreement in such form without any Schedule but with the elections set forth in this Confirmation, including:

- (i) The election of New York law as the governing law (without reference to its choice of law provisions).
- (ii) The election that subparagraph (ii) of Section 2(c) will not apply to the Transaction.
- (iii) The election that the “Cross Default” provisions of Section 5(a)(vi) of the Agreement shall apply to Dealer, with a “Threshold Amount” of 3% of shareholders’ equity for Morgan Stanley & Co. LLC (provided that (a) the phrase “, or becoming capable at such time of being declared,” shall be deleted from clause (1) of such Section 5(a)(vi) of the Agreement, (b) “Specified Indebtedness” shall have the meaning specified in Section 14 of the Agreement, except that such term shall not include obligations in respect of deposits received in the ordinary course of Dealer’s banking business and (c) the

following sentence shall be added to the end thereof: “Notwithstanding the foregoing, an Event of Default shall not occur under either (1) or (2) above if (a) the event or condition referred to in (1) or the failure to pay referred to in (2) is caused by an error or omission of an administrative or operational nature, (b) funds were available to Dealer to enable it to make the relevant payment when due, and (c) such payment is made within three Local Business Days after notice of such failure is given by Issuer.”).

(iv) *Issuer Payee Representations.* For the purpose of Section 3(f) of this Agreement, Issuer makes the following representation to Dealer:

Issuer is a corporation for U.S. tax purposes and a U.S. person (as that term is defined in Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended (the “Code”)).

(v) *Dealer Payee Representations.* For the purpose of Section 3(f) of this Agreement, Dealer makes the following representation to Issuer:

Dealer is a limited liability company duly organized and formed under the laws of the State of Delaware and is a disregarded entity for U.S. federal income tax purposes. Dealer’s sole member is a corporation duly organized under the laws of the State of Delaware and is an exempt recipient under Section 1.6049-4(c)(1)(ii) of the United States Treasury Regulations.

(vi) *Tax Documentation.* Each party shall provide to the other party a valid United States Internal Revenue Service Form W-9 (or successor thereto), (i) on or before the date of execution of this Confirmation and (ii) promptly upon learning that any such tax form previously provided by it has become obsolete or incorrect. Additionally, each party shall, promptly upon request by the other party, provide such other tax forms and documents reasonably requested by the other party.

The Transaction shall be the only transaction under the Agreement. If there exists any ISDA Master Agreement between MSCO and Issuer or any confirmation or other agreement between MSCO and Issuer pursuant to which an ISDA Master Agreement is deemed to exist between MSCO and Issuer, then, notwithstanding anything to the contrary in such ISDA Master Agreement, such confirmation or agreement or any other agreement to which MSCO and Issuer are parties, the Transaction shall not be considered a transaction under, or otherwise governed by, such existing or deemed to be existing ISDA Master Agreement.

If there is any inconsistency between the Agreement, this Confirmation and the Equity Definitions, the following will prevail for purposes of the Transaction in the order of precedence indicated: (i) this Confirmation; (ii) the Equity Definitions; and (iii) the Agreement.

1. The terms of the particular Transaction to which this Confirmation relates are as follows:

GENERAL TERMS:

Trade Date: As specified in Schedule I

Buyer: Issuer

Seller: MSCO

Shares: Common Stock, par value USD 0.0001 per share, of Issuer (Ticker: PANW)

Forward Price: A price equal to the arithmetic mean (not a weighted average, subject to "Market Disruption Event" below) of the 10b-18 VWAP on each Calculation Date during the Calculation Period minus (ii) the Discount.

Discount: As specified in Schedule I

10b-18 VWAP: On any Calculation Date, a price per Share equal to the volume-weighted average price of the Rule 10b-18 eligible trades in the Shares for the entirety of such Calculation Date as determined in good faith and in a commercially reasonable manner by the Calculation Agent by reference to the screen entitled "PANW <Equity> AQR SEC" or any successor page as reported by Bloomberg L.P. or any successor (without regard to pre-open or after-hours trading outside of any regular trading session for such Calculation Date or block trades (as defined in Rule 10b-18(b)(5) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")) on such Calculation Date), or, if the price displayed on such screen is clearly erroneous, such 10b-18 VWAP shall be determined based on a volume weighted average price substantially similar to the methodology set forth above in this paragraph, as determined by the Calculation Agent in good faith and in a commercially reasonable manner.

Calculation Period: The period from, and including, the Calculation Period Start Date to, and including, the relevant Valuation Date.

Calculation Period Start Date: As specified in Schedule I

Calculation Dates: As specified in Schedule I

Initial Shares: As specified in Schedule I

Initial Share Delivery Date: As specified in Schedule I. On the Initial Share Delivery Date, Seller shall deliver to Buyer a number of Shares equal to the Initial Shares in accordance with Section 9.4 of the Equity Definitions, with the Initial Share Delivery Date being deemed to be a "Settlement Date" for purposes of such Section 9.4.

Prepayment: Applicable

Prepayment Amount: As specified in Schedule I

Prepayment Date: As specified in Schedule I

Exchange: The New York Stock Exchange

Related Exchange: All Exchanges; *provided* that Section 1.26 of the Equity Definitions shall be amended to add the words “United States” before the word “exchange” in the tenth line of such Section.

Market Disruption Event: The definition of “Market Disruption Event” in Section 6.3(a) of the Equity Definitions is hereby amended by deleting the words “at any time during the one hour period that ends at the relevant Valuation Time, Latest Exercise Time, Knock-in Valuation Time or Knock-out Valuation Time, as the case may be,” starting in the third line thereof.

Section 6.3(d) of the Equity Definitions is hereby amended by deleting the remainder of the provision following the term “Scheduled Closing Time” in the fourth line thereof.

Notwithstanding anything to the contrary in the Equity Definitions, if any Scheduled Trading Day in the Calculation Period or the Buyer Settlement Valuation Period (each such Scheduled Trading Day, an “**Observation Day**”) is a Disrupted Day, the Calculation Agent may in good faith and in a commercially reasonable manner elect to take one or more of the following actions: (i) determine that such Observation Day is a Disrupted Day in whole, in which case the Calculation Agent shall exclude the 10b-18 VWAP on such Observation Day in determining the Forward Price or Buyer Settlement Price, as applicable, (ii) determine that such Observation Day is a Disrupted Day in part, in which case the Calculation Agent shall (x) determine the 10b-18 VWAP on such Observation Day based on Rule 10b-18 eligible trades in the Shares on such day taking into account the nature and duration of the relevant Market Disruption Event and (y) determine the Forward Price or Buyer Settlement Price, as applicable, using an appropriately weighted average of 10b-18 VWAPs instead of an arithmetic mean, and/or (iii) elect to (x) postpone the Scheduled Valuation Date (in the case of a disrupted Calculation Date) or (y) extend the Buyer Settlement Valuation Period (in the case of a Disrupted Day during the Buyer Settlement Valuation Period) by up to one Scheduled Trading Day for every Observation Day that is a Disrupted Day during the Calculation Period or Buyer Settlement Valuation Period, as applicable. For the avoidance of doubt, if the Calculation Agent takes the action described in clause (ii) above, then such Disrupted Day shall be an Observation Day for purposes of calculating the Forward Price or Buyer Settlement Price, as applicable.

Any Scheduled Trading Day on which, as of the date hereof, the Exchange is scheduled to close prior to its normal close of trading shall be deemed not to be a Scheduled Trading Day. If a closure of the Exchange prior to its normal close of trading is scheduled (x) on any Scheduled Trading Day during the Calculation Period following the date hereof or (y) on any Scheduled Trading Day during the Buyer Settlement Valuation Period after the relevant Buyer Election Date, then such Scheduled Trading Day shall be deemed to be a Disrupted Day in full.

If a Disrupted Day occurs (or is deemed to occur) during the Calculation Period or the Buyer Settlement Valuation Period, as the case may be, and each of the nine immediately following Scheduled Trading Days is a Disrupted Day (a “**Disruption Event**”), then the Calculation Agent, in its good faith and commercially reasonable discretion, may deem the day such Disruption Event occurs and each consecutive Disrupted Day thereafter to be an Observation Day that is not a Disrupted Day and determine the 10b-18 VWAP for each such Observation Day using its good faith and commercially reasonable estimate of the value of the Shares on such day based on the volume, historical volatility and trading patterns and price of the Shares and such other factors as it deems appropriate and commercially reasonable to take into account.

VALUATION:

Valuation Date(s): The earlier of (i) the Scheduled Valuation Date and (ii) any earlier accelerated Valuation Date as a result of MSCO’s election in accordance with the immediately succeeding paragraph.

MSCO shall have the right to accelerate the Valuation Date, for the whole Transaction or only a part thereof (it being understood that any such partial acceleration shall represent at least 25% of the Prepayment Amount unless any smaller amount represents the entire outstanding portion of the Transaction), to any Scheduled Trading Day that is on or after the Lock-Out Date and prior to the Scheduled Valuation Date by notice (each such notice, an “**Acceleration Notice**”) to Issuer by 7:00 p.m., New York City time, on the Exchange Business Day immediately following the accelerated Valuation Date (the “**Acceleration Date**”). MSCO shall specify in each Acceleration Notice the portion of the Prepayment Amount that is subject to acceleration. If the portion of the Prepayment Amount that is subject to acceleration is less than the full remaining Prepayment

Amount, then the Calculation Agent shall make such mechanical or administrative adjustments to the terms of the Transaction as appropriate in order to take into account the occurrence of such Acceleration Date (including cumulative adjustments to take into account all prior Acceleration Dates).

Scheduled Valuation Date: As specified in Schedule I, subject to postponement in accordance with “Market Disruption Event” above.

Lock-Out Date: As specified in Schedule I

SETTLEMENT TERMS:

Physical Settlement: Applicable. On any Valuation Date (including any Acceleration Date, if applicable), the Calculation Agent shall calculate the Settlement Amount for the relevant portion of the Transaction. The “**Settlement Amount**” for the Transaction is a number of Shares equal to (a) (i) the Prepayment Amount *divided by* (ii) the Forward Price *minus* (b) the Initial Shares, rounded to the nearest whole number of Shares.

If the Settlement Amount is positive, Seller shall deliver to Buyer a number of Shares equal to the Settlement Amount on the Settlement Date. If the Settlement Amount is negative, the provisions of Buyer Settlement shall apply.

Settlement Currency: USD

Settlement Date: The date that falls one Settlement Cycle after the relevant Valuation Date or Acceleration Date if prior to the Scheduled Valuation Date for the relevant portion of the Transaction (the final Settlement Date, the “**Final Settlement Date**”).

Buyer Settlement: If the Settlement Amount is negative, Buyer may elect that the Buyer Share Settlement provisions apply in lieu of the Buyer Cash Settlement Method provisions by written notice to Seller, which notice shall be effective if received by Seller by the earlier of (i) the Scheduled Valuation Date and (ii) the Scheduled Trading Day immediately following the final Acceleration Date (such date, the “**Buyer Election Date**”).

Buyer Cash Settlement: If Cash Settlement is applicable, then Buyer shall pay to Seller the absolute value of the Buyer Cash Settlement Amount on the Buyer Cash Settlement Payment Date.

Buyer Cash Settlement Amount: An amount equal to (a) the aggregate of each negative Settlement Amount, multiplied by (b) the Buyer Settlement Price.

Buyer Settlement Price: Subject to “Market Disruption Event” above, an amount equal to the arithmetic mean of the 10b-18 VWAP for each Scheduled Trading Day in the Buyer Settlement Valuation Period, plus a commercially reasonable commission associated with the repurchase of Shares in connection with the unwind of MSCO’s commercially reasonable hedge position, which shall not exceed USD 0.02.

Buyer Settlement Valuation Period: A number of Scheduled Trading Days selected by the Calculation Agent as necessary to unwind MSCO’s commercially reasonable hedge position in a commercially reasonable manner, beginning on the Scheduled Trading Day immediately following the Buyer Election Date, subject to “Market Disruption Event” above.

Buyer Cash Settlement Payment Date: The Currency Business Day immediately following the last day of the Buyer Settlement Valuation Period.

Buyer Share Settlement: On the Final Settlement Date, Buyer shall deliver to Seller a number of Shares equal to the Buyer Share Settlement Percentage *multiplied* by the absolute value of the aggregate of each negative Settlement Amount. Buyer’s obligation under this provision shall be netted against any obligations of Seller under “Physical Settlement” above on the Final Settlement Date.

Buyer Share Settlement Percentage: As specified in Schedule I

Other Applicable Provisions: The last sentence of Section 9.2, Sections 9.8, 9.9, 9.10 and 9.11 (except that the Representation and Agreement contained in Section 9.11 of the Equity Definitions shall be modified by excluding any representations therein relating to restrictions, obligations, limitations or requirements under applicable securities laws arising as a result of the fact that Buyer is the issuer of the Shares) and Section 9.12 of the Equity Definitions will be applicable to the Transaction.

SHARE ADJUSTMENTS:

Potential Adjustment Event: In addition to the events described in Section 11.2(e) of the Equity Definitions, the occurrence of a Disrupted Day (including due to the occurrence of a Regulatory Disruption) shall constitute a Potential Adjustment Event. In the case of any Disrupted Day, the Calculation Agent may, in its commercially reasonable judgment, adjust any relevant terms of the Transaction as the Calculation Agent determines

appropriate to account for the material economic effect on the Transaction of such Disrupted Day.

Different Dividend: For any calendar quarter, any dividend or distribution on the Shares with an ex-dividend date occurring during such calendar quarter (other than any dividend or distribution of the type described in Section 11.2(e)(i) or Section 11.2(e)(ii)(A) of the Equity Definitions) (a “**Dividend**”) the amount or value of which (as determined in good faith and in a commercially reasonable manner by the Calculation Agent), when aggregated with the amount or value (as determined in good faith and in a commercially reasonable manner by the Calculation Agent) of any and all previous Dividends with ex-dividend dates occurring in the same calendar quarter, differs from the Ordinary Dividend Amount.

Ordinary Dividend Amount: As specified in Schedule I

Extraordinary Dividend: The per Share cash dividend or distribution, or a portion thereof, declared by Issuer on the Shares that is classified by the board of directors of Issuer as an “extraordinary” dividend.

Consequences of Different Dividend: The declaration by the Issuer of any Different Dividend, the ex-dividend date for which occurs or is scheduled to occur during the Relevant Dividend Period (as defined below) for the Transaction, shall constitute an Additional Termination Event in respect of such Transaction, with Buyer as the sole Affected Party and such Transaction as the sole Affected Transaction. For the avoidance of doubt, upon the occurrence of such Additional Termination Event due to the declaration of a Different Dividend, the Calculation Agent shall not consider such Different Dividend in calculating the Payment Amount.

Early/Late Ordinary Dividend Payment: If an ex-dividend date for any Dividend that is neither (x) a dividend or distribution of the type described in Section 11.2(e)(i) or Section 11.2(e)(ii)(A) of the Equity Definitions nor (y) an Extraordinary Dividend, occurs during any calendar quarter occurring (in whole or in part) during the Relevant Dividend Period and such ex-dividend date is not on the Scheduled Ex-Dividend Date for such calendar quarter, the Calculation Agent shall make such adjustment to the exercise, settlement, payment or any other terms of the Transaction in a commercially reasonable manner to account for the economic effect on the Transaction of such event solely attributable to the timing of such event.

Scheduled Ex-Dividend Dates: As specified in Schedule I

Relevant Dividend Period: The period from, and including, the Trade Date for the Transaction to, and including, the later of (i) the fifth Scheduled Trading Day following the Scheduled Valuation Date for the Transaction and (ii) the last day of any Buyer Settlement Valuation Period for the Transaction.

Method of Adjustment: Calculation Agent Adjustment

EXTRAORDINARY EVENTS:

Consequences of Merger Events:

Share-for-Share: Modified Calculation Agent Adjustment

Share-for-Other: Cancellation and Payment

Share-for-Combined: Cancellation and Payment

Tender Offer: Applicable; *provided* that Section 12.1(d) of the Equity Definitions shall be amended by replacing “10%” in the third line thereof with “20%”. If the Calculation Agent makes any adjustment to the terms of this Transaction upon the announcement of a Tender Offer, then the Calculation Agent shall make a further adjustment to the terms of the same Transaction upon any announcement of the abandonment of any such Tender Offer.

Consequences of Tender Offers:

Share-for-Share: Modified Calculation Agent Adjustment

Share-for-Other: Modified Calculation Agent Adjustment

Share-for-Combined: Modified Calculation Agent Adjustment

Any adjustment to the terms of any Transaction hereunder and the determination of any amounts due upon termination of any Transaction hereunder as a result of a Merger Event or Tender Offer shall be made without duplication in respect of any prior adjustment hereunder (including, without limitation, any prior adjustment pursuant to Section 7 below).

New Shares: In the definition of New Shares in Section 12.1(i) of the Equity Definitions, the text in clause (i) thereof shall be deleted in its entirety and replaced with “publicly quoted, traded or listed on any of the New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or their respective successors)”.

Composition of Combined Consideration: Not Applicable

Nationalization, Insolvency or Delisting: Cancellation and Payment; *provided* that, in addition to the provisions of Section 12.6(a)(iii) of the Equity Definitions, it

shall constitute a Delisting if the Exchange is located in the United States and the Shares are not immediately re-listed, re-traded or re-quoted on any of the New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or their respective successors); if the Shares are immediately re-listed, re-traded or re-quoted on any such exchange or quotation system, such exchange or quotation system shall thereafter be deemed to be the Exchange.

ADDITIONAL DISRUPTION EVENTS:

Change in Law: Applicable; *provided* that Section 12.9(a)(ii) of the Equity Definitions is hereby amended by (i) replacing the phrase “the interpretation” in the third line thereof with the phrase “, or announcement or statement of, the formal or informal interpretation”, (ii) replacing the word “Shares” where it appears in clause (X) thereof with the words “Hedge Position” and (iii) adding the words “, or holding, acquiring or disposing of Shares or any Hedge Position relating to,” after the word “under” in clause (Y) thereof; *provided further* that (i) any determination as to whether (A) the adoption of or any change in any applicable law or regulation (including, for the avoidance of doubt and without limitation, (x) any tax law or (y) adoption or promulgation of new regulations authorized or mandated by existing statute) or (B) the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing authority), in each case, constitutes a “Change in Law” shall be made without regard to Section 739 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 or any similar legal certainty provision in any legislation enacted, or rule or regulation promulgated, on or after the Trade Date, and (ii) Section 12.9(a)(ii) of the Equity Definitions is hereby amended by replacing the parenthetical beginning after the word “regulation” in the second line thereof the words “(including, for the avoidance of doubt and without limitation, (x) any tax law or (y) adoption or promulgation of new regulations authorized or mandated by existing statute)”.

Failure to Deliver: Applicable

Insolvency Filing: Applicable

Hedging Disruption: Applicable

Loss of Stock Borrow: Applicable

Maximum Stock Loan Rate: As specified in Schedule I

Increased Cost of Stock Borrow: Applicable

Initial Stock Loan Rate: As specified in Schedule I

Determining Party: For all applicable events, MSCO; *provided* that following any determination hereunder and upon written request by Issuer, the Determining Party shall provide Issuer with a reasonably detailed explanation in writing of its determination calculation including, where applicable, a description of the methodology and the basis for such determination calculation; *provided further* that in no event will Dealer be obligated to share with Issuer any proprietary or confidential data or information or any proprietary or confidential models used by it.

Hedging Party: For all Additional Disruption Events, MSCO

Non-Reliance: Applicable

Agreements and Acknowledgments
Regarding Hedging Activities: Applicable

Additional Acknowledgments: Applicable

Hedging Adjustments: Whenever the Calculation Agent, Hedging Party or Determining Party, as the case may be, is called upon to make a determination, calculation or adjustment pursuant to the terms of this Confirmation or the Equity Definitions to take into account the effect of an event, the Calculation Agent, Hedging Party or Determining Party, as the case may be, shall make such determination, calculation or adjustment in a commercially reasonable manner and by reference to the effect of such event on MSCO's hedge position, with the Calculation Agent assuming that MSCO maintains a commercially reasonable Hedge Position in respect of the Transaction.

2. Calculation Agent: MSCO; *provided* that, following the occurrence of an Event of Default pursuant to Section 5(a)(vii) of the Agreement with respect to which Dealer is the sole Defaulting Party, Issuer shall have the right to designate a nationally recognized third-party dealer in over-the-counter corporate equity derivatives to act as the Calculation Agent with respect to the Transactions under this Confirmation. Following any determination or calculation by the Calculation Agent hereunder, upon a written request by Issuer, the Calculation Agent will promptly (but in any event no later than five (5) Exchange Business Days following receipt of such written request by Dealer) provide to Issuer by e-mail to the e-mail address provided by Issuer in such written request a

report (in a commonly used file format for the storage and manipulation of financial data) displaying in reasonable detail the basis for such determination or calculation, as the case may be, it being understood that the Calculation Agent shall not be obligated to disclose any proprietary or confidential models or any other confidential or proprietary information, in each case, used by it for such determination or calculation. Whenever the Calculation Agent is required to act or to exercise judgment in any way with respect to any Transaction hereunder, it will do so in good faith and in a commercially reasonable manner.

3. Account Details and Notices:

(a) Account for delivery of Shares to Issuer:

Bank: JPMorgan Chase Bank, N.A.
ABA#: 322271627
Swift Code: CHASUS33
Location: 300 South Grand Avenue, Floor 04-STE 460
Los Angeles, CA 90071
Acct No.: 2970321628

(b) Account for payments to Issuer:

To be provided upon request

(c) Account for payments and delivery of Shares to MSCO:

To be provided separately.

(d) For purposes of this Confirmation:

(i) Address for notices or communications to Issuer:

Palo Alto Networks, Inc.
3000 Tannery Way
Santa Clara, California 95054
Attention: Chief Financial Officer
Telephone No.: (408) 753-4000

(ii) Address for notices or communications to MSCO:

Morgan Stanley & Co. LLC
1585 Broadway
New York, NY 10036-8293
Attention: Joel Carter
Email: Joel.Carter@Morganstanley.com

With a copy to:

Morgan Stanley & Co. LLC
1585 Broadway
New York, NY 10036-8293

Attention: Steven Seltzer
Email: Steven.Seltzer1@morganstanley.com

4. Amendments to the Equity Definitions.

- (a) Section 11.2(a) of the Equity Definitions is hereby amended by deleting the words “a diluting or concentrative effect on the theoretical value of the relevant Shares” and replacing them with the words “in the commercially reasonable judgment of the Calculation Agent, a material economic effect on the Shares or the relevant Transaction (provided that such event is not based on (x) an observable market, other than the market for Issuer’s own stock or (y) an observable index, other than an index calculated measured solely by reference to Issuer’s own operations)”.
- (b) The first sentence of Section 11.2(c) of the Equity Definitions, prior to clause (A) thereof, is hereby amended to read as follows: ‘(c) If “Calculation Agent Adjustment” is specified as the Method of Adjustment in the related Confirmation of a Share Option Transaction or Share Forward Transaction, then, following the announcement or occurrence of any Potential Adjustment Event, the Calculation Agent will determine whether such Potential Adjustment Event has a material economic effect on the Transaction and, if so, will (i) make appropriate adjustment(s), if any, to any one or more of:’ and the portion of such sentence immediately preceding clause (ii) thereof is hereby amended by deleting the words “diluting or concentrative” and with respect to any Potential Adjustment Event under Sections 11.2(e)(ii)(B), (C) and (D), 11.2(e)(v), 11.2(e)(vi), or 11.2(e)(vii) only, deleting the phrase “(provided that no adjustments will be made to account solely for changes in volatility, expected dividends, stock loan rate or liquidity relative to the relevant Shares)” and replacing it with the phrase “(and, for the avoidance of doubt, adjustments may be made to account solely for changes in volatility, expected dividends, stock loan rate or liquidity relative to the relevant Shares or to the Transaction.
- (c) Section 11.2(e)(vii) of the Equity Definitions is hereby amended and restated as follows: any other corporate event of the Issuer that in the commercially reasonable judgment of the Calculation Agent has a material economic effect on the theoretical value of the Shares, options on the Shares or the Transaction; *provided* that such corporate event of the Issuer is not based on (a) an observable market, other than the market for Issuer’s own stock or (b) an observable index, other than an index calculated measured solely by reference to Issuer’s own operations.
- (d) the definition of “Announcement Date” in Section 12.1(l) of the Equity Definitions is hereby amended by (a) replacing the words “a firm” with the word “any” in the fourth lines thereof, (b) replacing the word “leads to the” with the words “, if completed, would lead to a” in the fifth line thereof, (c) replacing the words “voting shares” with the word “, voting power or Shares” in the fifth line thereof, (d) inserting the words “by any entity” after the word “announcement” in the fourth line thereof and (e) inserting the words “or to explore the possibility of purchasing or otherwise obtaining” after the word “obtain” in the fourth line thereof;
- (e) Section 12.3(d) of the Equity Definitions shall each be amended by replacing each occurrence of the words “Tender Offer Date” by “Announcement Date.”
- (f) Section 12.6(c)(ii) of the Equity Definitions is hereby amended by replacing the words “the Transaction will be cancelled,” in the first line with the words “MSCO will have the right to cancel the Transaction.”.
- (g) Section 12.9(b)(iv) of the Equity Definitions is hereby amended by (A) deleting (1) subsection (A) in its entirety, (2) the phrase “or (B)” following subsection (A) and (3) the phrase “in each case” in subsection

(B); and (B) replacing the phrase “neither the Non-Hedging Party nor the Lending Party lends Shares” with the phrase “such Lending Party does not lend Shares” in the penultimate sentence.

(h) Section 12.9(b)(v) of the Equity Definitions is hereby amended by (A) adding the word “or” immediately before subsection “(B)” and deleting the comma at the end of subsection (A); and (B)(1) deleting subsection (C) in its entirety, (2) deleting the word “or” immediately preceding subsection (C) and (3) replacing in the penultimate sentence the words “either party” with “the Hedging Party” and (4) deleting clause (X) in the final sentence.

5. Alternative Termination Settlement.

In the event that (a) an Early Termination Date (whether as a result of an Event of Default or a Termination Event) occurs or is designated with respect to the Transaction or (b) the Transaction is cancelled or terminated upon the occurrence of an Extraordinary Event (except as a result of (i) a Nationalization, Insolvency or Merger Event in which the consideration to be paid to holders of Shares consists solely of cash, (ii) a Merger Event or Tender Offer that is within Issuer’s control, or (iii) an Event of Default in which Issuer is the Defaulting Party or a Termination Event in which Issuer is the Affected Party other than an Event of Default of the type described in Section 5(a)(iii), (v), (vi), (vii) or (viii) of the Agreement or a Termination Event of the type described in Section 5(b) of the Agreement, in each case that resulted from an event or events outside Issuer’s control), if either party would owe any amount to the other party pursuant to Section 6(d)(ii) of the Agreement or any Cancellation Amount pursuant to Article 12 of the Equity Definitions (any such amount, a “**Payment Amount**”), then such payment shall be paid as set forth under the Agreement or Equity Definitions, as the case may be, unless Issuer makes an election to the contrary (which election shall be effective only if Issuer represents in writing to MSCO that, as of the date of such election, Issuer is not in possession or otherwise aware of any material nonpublic information regarding Issuer or the Shares). no later than the Early Termination Date or the date on which such Transaction is terminated or cancelled, in which case Issuer or MSCO, as the case may be, shall deliver to the other party a number of Shares (or a number of units, each comprising the number or amount of the securities or property that a hypothetical holder of one Share would receive in the case of a Nationalization, Insolvency or Merger Event, as the case may be (each such unit, an “**Alternative Delivery Unit**”)), with a value equal to the Payment Amount. In determining the number of Shares (or Alternative Delivery Units) required to be delivered under this provision, the Calculation Agent may take into account a number of factors, including, without limitation, the market price of the Shares (or Alternative Delivery Units) on the Early Termination Date or the date of early cancellation or termination, as the case may be. Additionally, (x) if such delivery is made by MSCO, the Calculation Agent shall take into account the prices at which MSCO purchases Shares (or Alternative Delivery Units) to fulfill its delivery obligations under this Section 5 (assuming that MSCO makes such purchases in a commercially reasonable manner that reflects the prevailing market prices of the Shares as of the time of such purchases) and (y) if such delivery is made by the Issuer, the Calculation Agent shall apply a commercially reasonable illiquidity discount for Shares (or Alternative Delivery Units) of companies of comparable size, maturity, and line of business and take into account any commercially reasonable carrying charges and expenses incurred in connection with the restricted status of such Shares under applicable securities laws.

6. Special Provisions for Acquisition Transaction Announcements.

(a) If an Acquisition Transaction Announcement occurs on or prior to the final Valuation Date, then the Calculation Agent shall make such adjustments to the exercise, settlement, payment or any other terms of the Transaction in a commercially reasonable manner (including, without limitation and for the avoidance of doubt, adjustments that would allow the Settlement Amount to be less than zero), at such

time or at multiple times as the Calculation Agent reasonably determines appropriate in good faith, to account for the economic effect on the Transaction of such Acquisition Transaction Announcement (including adjustments to account for changes in volatility, stock loan rate, value of any commercially reasonable Hedge Positions in connection with the Transaction and liquidity relevant to the Shares or to such Transaction). If an Acquisition Transaction Announcement occurs after the Trade Date but prior to the Lock-Out Date, the Lock-Out Date shall be deemed to be the date of such Acquisition Transaction Announcement.

- (b) **“Acquisition Transaction Announcement”** means (i) the announcement of an Acquisition Transaction, (ii) an announcement that Issuer or any of its subsidiaries has entered into an agreement, a letter of intent or an understanding designed to result in an Acquisition Transaction, (iii) the announcement by the Issuer or any of its subsidiaries of the intention to solicit or enter into, or to explore strategic alternatives or other similar undertaking that may include, an Acquisition Transaction, (iv) any other announcement that in the reasonable judgment of the Calculation Agent may result in an Acquisition Transaction or (v) any announcement subsequent to an Acquisition Transaction Announcement relating to an amendment, extension, withdrawal or other change to the subject matter of a prior Acquisition Transaction Announcement. For the avoidance of doubt, the term “announcement” as used in the definition of Acquisition Transaction Announcement refers to any public statement and/or any announcement related to an Acquisition Transaction made by Issuer or a Valid Third Party Entity. **“Valid Third Party Entity”** means any third party that has a bona fide intent to enter into or consummate such Acquisition Transaction (it being understood and agreed that in determining whether such third party has such a bona fide intent, the Calculation Agent may take into consideration the effect of the relevant announcement by such third party on the Shares and/or options relating to the Shares).
- (c) **“Acquisition Transaction”** means (i) any Merger Event (for purposes of this definition, the definition of Merger Event shall be read with the references therein to “100%” being replaced by “30%” and to “50%” by “75%” and without reference to the clause beginning immediately following the definition of Reverse Merger therein to the end of such definition), Tender Offer or Merger Transaction (as defined below) or any other transaction involving the merger of Issuer with or into any third party, (ii) the sale or transfer of all or substantially all of the assets or liabilities of Issuer, (iii) a recapitalization, reclassification, binding share exchange or other similar transaction, (iv) any acquisition, lease, exchange, transfer, disposition (including by way of spin-off or distribution) of assets or liabilities (including any capital stock or other ownership interests in subsidiaries) or other similar event by Issuer or any of its subsidiaries where the aggregate consideration transferable or receivable by or to Issuer or its subsidiaries exceeds 30% of the market capitalization of Issuer and (v) any transaction with respect to which Issuer or its board of directors has a legal obligation to make a recommendation to its shareholders in respect of such transaction (whether pursuant to Rule 14e-2 under the Exchange Act or otherwise).

7. MSCO Adjustments.

In the event that MSCO determines in its good faith reasonable judgment, based on the advice of counsel, that it is appropriate with regard to any legal, regulatory or self-regulatory requirements or related policies and procedures (whether or not such requirements, policies or procedures are imposed by law or have been voluntarily adopted by MSCO, and including, without limitation, Rule 10b-18, Rule 10b-5, Regulations 13D-G and Regulations 14D-E, each under the Exchange Act, (provided that such requirements, policies and procedures relate to regulatory issues and are generally applicable in similar situations and are applied in a

consistent manner in similar transactions), for MSCO to refrain from purchasing Shares or engaging in other market activity or to purchase fewer than the number of Shares or to engage in fewer or smaller other market transactions than MSCO would otherwise purchase or engage in (such determination, a “**Regulatory Disruption**”) on any Scheduled Trading Day(s) on or prior to the conclusion of the Potential Purchase Period (as defined below), then MSCO may, in its reasonable discretion, elect that a Market Disruption Event shall be deemed to have occurred and will be continuing on any such Scheduled Trading Day(s) and each such Scheduled Trading Day shall be a Disrupted Day (subject to “Market Disruption Event” above). Dealer shall notify Issuer as soon as practicable that a Regulatory Disruption has occurred and the basis for such Regulatory Disruption and the Scheduled Trading Days affected by it; *provided* that the Dealer shall not be obligated to disclose any proprietary or confidential models or any other confidential or proprietary information, in each case, used by it for such determination.

8. Covenants.

Issuer covenants and agrees that:

- (a) Until the end of the Potential Purchase Period (as defined below), neither it nor any of its affiliated purchasers (as defined in Rule 10b-18 under the Exchange Act, “**Rule 10b-18**”) shall directly or indirectly (which shall be deemed to include the writing or purchase of any cash-settled or other derivative transaction which references Shares or structured Share repurchase or other derivative with a hedging period, calculation period or settlement valuation period or similar period that overlaps with the Transaction) purchase, offer to purchase, place any bid or limit order relating to a purchase of or commence any tender offer relating to Shares (or any security convertible into or exchangeable for Shares) without the prior written approval of MSCO or take any other action that would cause the purchase by MSCO of any Shares in connection with this Confirmation not to qualify for the safe harbor provided in Rule 10b-18 under the Exchange Act (assuming for the purposes of this paragraph that such safe harbor were otherwise available for such purchases); *provided* that Issuer and/or any affiliated purchasers of Issuer may effect Permitted Open Market Repurchases through Dealer (or its affiliate) so long as the amount of Shares repurchased on any Calculation Date, in aggregate, by Issuer and all affiliated purchasers of Issuer does not exceed the Open Market Share Repurchase Threshold. “**Potential Purchase Period**” means the period from, and including, the Trade Date to, and including, the latest of (i) the last day of any Buyer Settlement Valuation Period, (ii) the earlier of (A) the date five Exchange Business Days immediately following the last day of the Calculation Period and (B) the Scheduled Valuation Date and (iii) if an Early Termination Date occurs or the Transaction is cancelled pursuant to Article 12 of the Equity Definitions, a date determined by MSCO in its commercially reasonable discretion and communicated to Issuer no later than the Exchange Business Day immediately following such date (or, in the absence of such communication, the date that is five Exchange Business Days immediately following such date).
- (b) It will comply with all laws, rules and regulations applicable to it (including, without limitation, the Securities Act of 1933 (the “**Securities Act**”) and the Exchange Act) in connection with the transactions contemplated by this Confirmation.
- (c) Without limiting the generality of Section 13.1 of the Equity Definitions, it is not relying, and has not relied, upon MSCO or any of its representatives or advisors with respect to the legal, accounting, tax or other implications of this Confirmation and that it has conducted its own analyses of the legal, accounting, tax and other implications of this Confirmation, and that MSCO and its affiliates may from time to time effect transactions for their own account or the account of customers and hold positions in securities or options on securities of Issuer and that MSCO and its affiliates may continue to conduct such transactions

during the term of this Confirmation. Without limiting the generality of the foregoing, Issuer acknowledges that MSCO is not making any representations or warranties or taking any position or expressing any view with respect to the treatment of the Transaction under any accounting standards including ASC Topic 260, Earnings Per Share, ASC Topic 815, Derivatives and Hedging, or ASC Topic 480, Distinguishing Liabilities from Equity and ASC 815-40, Derivatives and Hedging – Contracts in Entity’s Own Equity (or any successor issue statements) or under FASB’s Liabilities & Equity Project.

- (d) The Shares are not, and Issuer will not cause the Shares to be, subject to a “restricted period” (as defined in Regulation M promulgated under the Exchange Act) at any time during any Potential Purchase Period for any Transaction unless Issuer has provided written notice to Dealer of such restricted period not later than the Scheduled Trading Day immediately preceding the first day of such “restricted period”; Issuer acknowledges that any such notice may be treated as a Regulatory Disruption pursuant to this Confirmation; accordingly, Issuer acknowledges that its delivery of such notice must comply with the standards set forth in Section 9(c) of this Confirmation. Issuer is not currently contemplating any “distribution” (as defined in Regulation M promulgated under the Exchange Act) of Shares, or any security for which Shares are a “reference security” (as defined in Regulation M promulgated under the Exchange Act).
- (e) It will not during the term of the Transaction make, or, to the extent within its control, permit to be made, any public announcement (as defined in Rule 165(f) under the Securities Act) of any Merger Transaction or potential Merger Transaction unless such public announcement is made prior to the open or after the close of the regular trading session on the Exchange for the Shares. “**Merger Transaction**” means any merger, acquisition or similar transaction involving a recapitalization of Issuer as contemplated by Rule 10b-18(a)(13)(iv) under the Exchange Act. Issuer acknowledges that any such public announcement may trigger the provision set forth in Section 7 above.
- (f) Not later than 7:00 AM New York City time on the day following the announcement of a Merger Transaction, Issuer shall provide MSCO with written notice, which notice shall specify (i) the nature of such announcement; (ii) Issuer’s average daily “Rule 10b-18 purchases” as defined in Rule 10b-18 during the three full calendar months immediately preceding such announcement and (iii) the number of Shares purchased pursuant to the block purchase proviso in Rule 10b-18(b)(4) under the Exchange Act for the three full calendar months preceding the date of such announcement. Such written notice shall be deemed to be a certification by Issuer to MSCO that such information is true and correct in all material respects. Issuer understands that MSCO will use this information in calculating the trading volume for purposes of Rule 10b-18. In addition, Issuer shall promptly provide written notice to MSCO of the occurrence of the completion of such transaction or the completion of the vote by target shareholders related to such transaction. Issuer acknowledges that its delivery of such notices must comply with the standards set forth in Section 10(c) below.
- (g) (A) Any Shares or Alternative Delivery Units delivered to MSCO may be transferred by and among MSCO and its affiliates and Issuer shall effect such transfer without any further action by MSCO and (B) after the period of 6 months from the date that Issuer elects to deliver any Shares or Alternative Delivery Units pursuant to the terms of this Transaction (or no later than 1 year from such date, if at the time of MSCO’s or its affiliate’s request, informational requirements of Rule 144 under the Securities Act are not satisfied with respect to Issuer) has elapsed in respect of any such election to deliver Shares or Alternative Delivery Units to MSCO, Issuer shall promptly remove, or cause the transfer agent for such Shares or Alternative Delivery Units to remove, any legends referring to any restrictions or requirements related to any applicable securities laws upon request by MSCO (or such affiliate of MSCO) to Issuer or such transfer agent, without

any requirement for the delivery of any certificate, consent, agreement, opinion of counsel, notice or any other document, any transfer tax stamps or payment of any other amount or any other action by MSCO (or such affiliate of MSCO). Notwithstanding anything to the contrary herein, to the extent the provisions of Rule 144 of the Securities Act or any successor rule are amended, or the applicable interpretation thereof by the Securities and Exchange Commission or any court change after the Trade Date, the agreements of Issuer herein shall be deemed modified to the extent necessary, as determined by MSCO, to comply with Rule 144 of the Securities Act, as in effect at the time of delivery of the relevant Shares or Alternative Delivery Units.

9. Representations, Warranties, Acknowledgments, and Agreements.

- (a) Issuer hereby represents and warrants to MSCO on the date hereof and on and as of the Initial Share Delivery Date that:
- (i) None of Issuer and its officers and directors is aware of any material nonpublic information regarding Issuer or the Shares, and is entering into the Transaction in good faith and not as part of a plan or scheme to evade the prohibitions of federal securities laws, including, without limitation, Rule 10b-5 under the Exchange Act and (B) Issuer agrees not to alter or deviate from the terms of this Confirmation or enter into or alter a corresponding or hedging transaction or position with respect to the Shares (including, without limitation, with respect to any securities convertible or exchangeable into the Shares) during the term of this Confirmation. Without limiting the generality of the foregoing, all reports and other documents filed by Issuer with the Securities and Exchange Commission pursuant to the Exchange Act when considered as a whole (with the more recent such reports and documents deemed to amend inconsistent statements contained in any earlier such reports and documents) do not contain any untrue statement of a material fact or any omission of a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances in which they were made, not misleading.
 - (ii) The transactions contemplated by this Confirmation have been authorized under Issuer's publicly announced program to repurchase Shares prior to the Trade Date.
 - (iii) Issuer is not entering into the Transaction or making any election hereunder to facilitate a distribution of the Shares (or any security convertible into or exchangeable for Shares) or in connection with a future issuance of securities.
 - (iv) Issuer is not entering into the Transaction or making any election hereunder to create actual or apparent trading activity in the Shares (or any security convertible or exchangeable for Shares) or to manipulate the price of the Shares (or any security convertible into or exchangeable for Shares) in violation of the federal securities laws.
 - (v) There have been no purchases of Shares in Rule 10b-18 purchases of blocks pursuant to the once-a-week block exception contained in Rule 10b-18(b)(4) by or for Issuer or any of its affiliated purchasers during each of the four calendar weeks preceding the Trade Date and during the calendar week in which the Trade Date occurs ("Rule 10b-18 purchase", "blocks" and "affiliated purchaser" each as defined in Rule 10b-18).
 - (vi) Issuer is as of the date hereof, the Prepayment Date, any Buyer Election Date and any Buyer Cash Settlement Payment Date, and after giving effect to the transactions contemplated hereby will be, Solvent. As used in this paragraph, the term "**Solvent**" means, with respect to a particular date,

that on such date (A) the present fair market value (or present fair saleable value) of the assets of Issuer is not less than the total amount required to pay the liabilities of Issuer on its total existing debts and liabilities (including contingent liabilities) as they become absolute and matured, (B) Issuer is able to realize upon its assets and pay its debts and other liabilities, contingent obligations and commitments as they mature and become due in the normal course of business, (C) assuming consummation of the transactions as contemplated by this Confirmation, Issuer is not incurring debts or liabilities beyond its ability to pay as such debts and liabilities mature, (D) Issuer is not engaged in any business or transaction, and does not propose to engage in any business or transaction, for which its property would constitute unreasonably small capital after giving due consideration to the prevailing practice in the industry in which Issuer is engaged, (E) Issuer is not a defendant in any civil action that could reasonably be expected to result in a judgment that Issuer is or would become unable to satisfy, (F) Issuer is not “insolvent” (as such term is defined under Section 101(32) of the U.S. Bankruptcy Code (Title 11 of the United States Code) (the “**Bankruptcy Code**”)) and (G) Issuer would be able to purchase Shares with an aggregate purchase price equal to the Prepayment Amount in compliance with the corporate laws of the jurisdiction of its incorporation.

- (vii) Issuer is not, and after giving effect to the transactions contemplated hereby will not be, required to register as an “investment company” as such term is defined in the Investment Company Act of 1940, as amended.
- (viii) No state or local (including non-U.S. jurisdictions) law, rule, regulation or regulatory order (“**Rules**”) applicable to the Shares would give rise to any reporting, consent, registration or other requirement (including without limitation a requirement to obtain prior approval from any person or entity) as a result of MSCO or its affiliates owning or holding (however defined) Shares (other than any Rules applicable to MSCO or its affiliates under its bank regulatory requirements).
- (ix) Issuer (A) is capable of evaluating investment risks independently, both in general and with regard to all transactions and investment strategies involving a security or securities; (B) will exercise independent judgment in evaluating the recommendations of any broker-dealer or its associated persons, unless it has otherwise notified the broker-dealer in writing; and (C) has total assets of at least USD 50,000,000 as of the date hereof.
- (b) Issuer acknowledges and agrees that the Initial Shares may be sold short to Issuer. Issuer further acknowledges and agrees that MSCO may purchase Shares in connection with the Transaction, which Shares may be used to cover all or a portion of such short sale or may be delivered to Issuer. Such purchases and any other market activity by MSCO will be conducted independently of Issuer by MSCO as principal for its own account. All of the actions to be taken by MSCO in connection with the Transaction shall be taken by MSCO independently and without any advance or subsequent consultation with Issuer.
- (c) It is the intent of the parties that the Transaction comply with the requirements of Rule 10b5-1(c)(1)(i)(B) of the Exchange Act, and the parties agree that this Confirmation shall be interpreted to comply with the requirements of such rule, and Issuer shall not take any action that results in the Transaction not so complying with such requirements. Without limiting the generality of the preceding sentence, Issuer acknowledges and agrees that (A) Issuer does not have, and shall not attempt to exercise, any influence over how, when or whether MSCO effects any market transactions in connection with the Transaction and (B) neither Issuer nor its officers or employees shall, directly or indirectly,

communicate any information regarding Issuer or the Shares to any employee of MSCO or its Affiliates, other than employees identified by MSCO to Issuer in writing as employees not responsible for executing market transactions in connection with the Transaction. Issuer also acknowledges and agrees that any amendment, modification, waiver or termination of this Confirmation must be effected in accordance with the requirements for the amendment or termination of a “plan” as defined in Rule 10b5-1(c) under the Exchange Act. Without limiting the generality of the foregoing, any such amendment, modification, waiver or termination shall be made in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b-5 under the Exchange Act, and no such amendment, modification, waiver or termination shall be made at any time at which Issuer or any officer or director of Issuer is aware of any material nonpublic information regarding Issuer or the Shares.

- (d) Each of Issuer and MSCO represents and warrants to the other that it is an “eligible contract participant” as defined in Section 1a(18) of the U.S. Commodity Exchange Act, as amended.
- (e) Each of Issuer and MSCO acknowledges that the offer and sale of the Transaction to it is intended to be exempt from registration under the Securities Act by virtue of Section 4(a)(2) thereof. Accordingly, it represents and warrants to the other party that (i) it has the financial ability to bear the economic risk of its investment in the Transaction and is able to bear a total loss of its investment, (ii) it is an “accredited investor” as that term is defined in Regulation D under the Securities Act, (iii) it is entering into the Transaction for its own account and without a view to the distribution or resale thereof and (iv) the assignment, transfer or other disposition of the Transaction has not been and will not be registered under the Securities Act and is restricted under this Confirmation, the Securities Act and state securities laws.
- (f) In addition to the representations, warranties and covenants in this Agreement, Dealer represents warrants and covenants to Issuer that:
 - (i) In addition to the covenants in the Agreement and herein, Dealer agrees to use commercially reasonable efforts, during the Calculation Period and any Buyer Settlement Valuation Period for any Transaction, to make all purchases of Shares in connection with such Transaction in a manner that would comply with the limitations set forth in clauses (b)(1), (b)(2), (b)(3) and (b)(4) and (c) of Rule 10b-18, as if such rule were applicable to such purchases and taking into account any applicable Securities and Exchange Commission no-action letters as appropriate, and subject to any delays between the execution and reporting of a trade of the Shares on the Exchange and other circumstances beyond Dealer’s control; *provided* that, during the Calculation Period, the foregoing agreement shall not apply to purchases made to dynamically hedge for Dealer’s own account or the account of its affiliate(s) the optionality arising under a Transaction (including, for the avoidance of doubt, timing optionality); *provided further* that, without limiting the generality of the first sentence of this Section, Dealer shall not be responsible for any failure to comply with Rule 10b-18(b)(3) to the extent any transaction that was executed (or deemed to be executed) by or on behalf of Issuer or an “affiliated purchaser” (as defined under Rule 10b-18) pursuant to a separate agreement is not deemed to be an “independent bid” or an “independent transaction” for purposes of Rule 10b-18(b)(3).
 - (ii) Dealer hereby represents and covenants to Issuer that it has implemented policies and procedures, taking into consideration the nature of its business, reasonably designed to ensure that (A) individuals making investment decisions related to any Transaction do not have access to material nonpublic information regarding Issuer or the Shares and (B) individuals of Dealer that are in possession of material nonpublic information regarding the Issuer or the Shares have not, while in possession of such

material nonpublic information, participated in any offsetting transaction(s) in respect of such Transaction.

(iii) Within one Exchange Business Day of purchasing any Shares on behalf of Issuer pursuant to the once-a-week block exception set forth in paragraph (b)(4) of Rule 10b-18, Dealer shall notify Issuer of the total number of Shares so purchased.

10. Acknowledgements of Issuer Regarding Hedging and Market Activity.

Issuer agrees, understands and acknowledges that:

- (a) During the period from (and including) the Trade Date to (and including) the Settlement Date, MSCO and its Affiliates may buy or sell Shares or other securities or buy or sell options or futures contracts or enter into swaps or other derivative transactions in order to establish, maintain or adjust its Hedge Position with respect to the Transaction.
- (b) MSCO and its Affiliates also may be active in the market for the Shares or options, futures contracts, swaps or other derivative transactions relating to the Shares other than in connection with hedging activities in relation to the Transaction.
- (c) MSCO shall make its own determination as to whether, when and in what manner any hedging or market activities in Issuer's securities or other securities or transactions shall be conducted and shall do so in a manner that it deems appropriate to hedge its price and market risk with respect to the Transaction.
- (d) Any such market activities of MSCO and its Affiliates may affect the market price and volatility of the Shares, including the 10b-18 VWAP, the Forward Price, and the Buyer Settlement Price, each in a manner that may be adverse to Issuer.

11. [Reserved]

12. Other Provisions.

- (a) Issuer agrees and acknowledges that MSCO is a "financial institution," "financial participant" and "swap participant" within the meaning of Sections 101(22), 101(22A) and 101(53C) of the Bankruptcy Code. The parties hereto further agree and acknowledge that it is the intent of the parties that (A) this Confirmation is a "securities contract," as such term is defined in Section 741(7) of the Bankruptcy Code, with respect to which each payment and delivery hereunder or in connection herewith is a "termination value," "payment amount," "offset or net out" or "other transfer obligation" within the meaning of Section 362(b) of the Bankruptcy Code and a "settlement payment," within the meaning of Section 546(e) of the Bankruptcy Code, (B) this Confirmation is a "swap agreement," as such term is defined in Section 101(53B) of the Bankruptcy Code, with respect to which each payment and delivery hereunder or in connection herewith is a "transfer" within the meaning of Section 546(g) of the Bankruptcy Code, (C) the rights given to MSCO under this Confirmation and under the Agreement upon the occurrence of an Event of Default with respect Issuer constitute "contractual rights" to cause the liquidation, termination or acceleration of or the offset or net out termination values under or in connection with a "securities contract" and a "swap agreement", (D) this Confirmation is a "master netting agreement" as defined in 101(38A) of the Bankruptcy Code and (E) MSCO is entitled to the protections afforded by, among other sections, Sections 362(b)(6), 362(b)(17), 362(o), 546(e), 546(g), 548(d)(2), 555, 560, and 561 of the Bankruptcy Code and.

- (b) MSCO acknowledges and agrees that this Confirmation is not intended to convey to MSCO rights against Issuer with respect to the Transaction that are senior to the claims of common stockholders of Issuer in any United States bankruptcy proceedings of Issuer; *provided* that nothing herein shall limit or shall be deemed to limit MSCO's right to pursue remedies in the event of a breach by Issuer of its obligations and agreements with respect to the Transaction; *provided further* that nothing herein shall limit or shall be deemed to limit MSCO's rights in respect of any transactions other than this Transaction.
- (c) Notwithstanding any provision of this Confirmation or any other agreement between the parties to the contrary, neither the obligations of Issuer nor the obligations of MSCO hereunder are secured by any collateral, security interest, pledge or lien.
- (d) Each party waives any and all rights it may have to set off obligations arising under the Agreement and the Transaction against other obligations between the parties, whether arising under any other agreement, applicable law or otherwise.
- (e) Notwithstanding anything to the contrary herein, MSCO may, by prior notice to Issuer, satisfy its obligation to deliver any Shares or other securities on any date due (an "**Original Delivery Date**") by making separate deliveries of Shares or such securities, as the case may be, at more than one time on or prior to such Original Delivery Date, so long as the aggregate number of Shares and other securities so delivered on or prior to such Original Delivery Date is equal to the number required to be delivered on such Original Delivery Date. Any Shares delivered pursuant to this provision shall be included in the calculation of the Settlement Amount.
- (f) It shall constitute an Additional Termination Event with respect to which the Transaction is the sole Affected Transaction and Issuer is the sole Affected Party if, at any time on or prior to the final Valuation Date, the price per Share on the Exchange, as determined by the Calculation Agent, is at or below the Threshold Price (as specified in Schedule I).

13. Share Caps.

Notwithstanding any other provision of this Confirmation or the Agreement to the contrary, in no event shall Issuer be required to deliver to MSCO in the aggregate a number of Shares that exceeds the Share Cap as of the date of delivery (as specified in Schedule I). Notwithstanding anything to the contrary in this Confirmation, in no event shall MSCO be required to deliver any Shares in excess of the Maximum Number of Shares (as specified in Schedule I).

14. Transfer and Assignment.

MSCO may, without the consent of the Issuer, transfer or assign its rights and obligations hereunder and under this Confirmation, in whole or in part, to any of its Affiliates (1) that has a long-term issuer rating that is equal to or better than Dealer's credit rating at the time of such assignment, or (2) whose obligations hereunder will be guaranteed, pursuant to the terms of a customary guarantee in a form used generally for similar transactions, by Dealer or Dealer's ultimate parent; *provided that*, at the time of such assignment (i) Issuer will not be required to pay (including a payment in kind) to the transferee any amount in respect of an Indemnifiable Tax under Section 2(d)(i)(4) of the Agreement greater than the amount in respect of which Issuer would have been required to pay to Dealer in the absence of such transfer; and (ii) Issuer will not receive any payment (including a payment in kind) from which an amount had been withheld or deducted, on account of a Tax under Section 2(d)(i) of the Agreement, in excess of that which Dealer would have been required to so withhold or deduct in the absence of such transfer, except to the extent that the transferee will be required to make additional

payments pursuant to Section 2(d)(i)(4) of the Agreement in respect of such excess. For the avoidance of doubt, Issuer shall have the right to consent to any transfer or assignment that does not meet the requirements set forth above.

15. The parties agree that (i) to the extent that prior to the date hereof both parties have adhered to the 2018 ISDA U.S. Resolution Stay Protocol (the “**Protocol**”), the terms of the Protocol are incorporated into and form a part of this Agreement, and for such purposes this Agreement shall be deemed a Protocol Covered Agreement and each party shall be deemed to have the same status as Regulated Entity and/or Adhering Party as applicable to it under the Protocol; (ii) to the extent that prior to the date hereof the parties have executed a separate agreement the effect of which is to amend the qualified financial contracts between them to conform with the requirements of the QFC Stay Rules (the “Bilateral Agreement”), the terms of the Bilateral Agreement are incorporated into and form a part of this Agreement and each party shall be deemed to have the status of “Covered Entity” or “Counterparty Entity” (or other similar term) as applicable to it under the Bilateral Agreement; or (iii) if clause (i) and clause (ii) do not apply, the terms of Section 1 and Section 2 and the related defined terms (together, the “Bilateral Terms”) of the form of bilateral template entitled “Full-Length Omnibus (for use between U.S. G-SIBs and Corporate Groups)” published by ISDA on November 2, 2018 (currently available on the 2018 ISDA U.S. Resolution Stay Protocol page at www.isda.org and, a copy of which is available upon request), the effect of which is to amend the qualified financial contracts between the parties thereto to conform with the requirements of the QFC Stay Rules, are hereby incorporated into and form a part of this Agreement, and for such purposes this Agreement shall be deemed a “Covered Agreement,” MSCO shall be deemed a “Covered Entity” and Issuer shall be deemed a “Issuer Entity.” In the event that, after the date of this Agreement, both parties hereto become adhering parties to the Protocol, the terms of the Protocol will replace the terms of this paragraph . In the event of any inconsistencies between this Agreement and the terms of the Protocol, the Bilateral Agreement or the Bilateral Terms (each, the “QFC Stay Terms”), as applicable, the QFC Stay Terms will govern. Terms used in this paragraph without definition shall have the meanings assigned to them under the QFC Stay Rules. For purposes of this paragraph, references to “this Agreement” include any related credit enhancements entered into between the parties or provided by one to the other. In addition, the parties agree that the terms of this paragraph shall be incorporated into any related covered affiliate credit enhancements, with all references to Morgan Stanley replaced by references to the covered affiliate support provider.

“QFC Stay Rules” means the regulations codified at 12 C.F.R. 252.2, 252.81–8, 12 C.F.R. 382.1-7 and 12 C.F.R. 47.1-8, which, subject to limited exceptions, require an express recognition of the stay-and-transfer powers of the FDIC under the Federal Deposit Insurance Act and the Orderly Liquidation Authority under Title II of the Dodd Frank Wall Street Reform and Consumer Protection Act and the override of default rights related directly or indirectly to the entry of an affiliate into certain insolvency proceedings and any restrictions on the transfer of any covered affiliate credit enhancements.

16. Governing Law; Jurisdiction; Waiver.

THIS CONFIRMATION AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS CONFIRMATION SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK. THE PARTIES HERETO IRREVOCABLY SUBMIT TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF NEW YORK AND THE UNITED STATES COURT FOR THE SOUTHERN DISTRICT OF NEW YORK IN CONNECTION WITH ALL MATTERS RELATING HERETO AND WAIVE ANY OBJECTION TO THE LAYING OF VENUE IN, AND ANY CLAIM OF INCONVENIENT FORUM WITH RESPECT TO, THESE COURTS. NOTHING IN THIS PROVISION

SHALL PROHIBIT A PARTY FROM BRINGING AN ACTION TO ENFORCE A MONEY JUDGMENT IN ANY OTHER JURISDICTION.

EACH PARTY HEREBY IRREVOCABLY WAIVES (ON ITS OWN BEHALF AND, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ON BEHALF OF ITS STOCKHOLDERS) ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THE TRANSACTION OR THE ACTIONS OF THE OTHER PARTY OR THE OTHER PARTY'S AFFILIATES IN THE NEGOTIATION, PERFORMANCE OR ENFORCEMENT HEREOF.

17. No Collateral, Netting or Setoff.

Notwithstanding any provision of the Agreement or any other agreement between the parties to the contrary, the obligations of Issuer hereunder are not secured by any collateral. Obligations under any Transaction shall not be netted, recouped or set off (including pursuant to Section 6 of the Agreement) against any other obligations of the parties, whether arising under the Agreement, this Confirmation, or under any other agreement between the parties hereto, by operation of law or otherwise, and no other obligations of the parties shall be netted, recouped or set off (including pursuant to Section 6 of the Agreement) against obligations under any Transaction, whether arising under the Agreement or this Confirmation, or under any other agreement between the parties hereto, by operation of law or otherwise, and each party hereby waives any such right of setoff, netting or recoupment.

18. Status of Claims in Bankruptcy.

Dealer acknowledges and agrees that this Confirmation is not intended to convey to Dealer rights against Issuer with respect to any Transaction that are senior to the claims of common stockholders of Issuer in any United States bankruptcy proceedings of Issuer; *provided* that nothing herein shall limit or shall be deemed to limit Dealer's right to pursue remedies in the event of a breach by Issuer of its obligations and agreements with respect to any Transaction; *provided further* that nothing herein shall limit or shall be deemed to limit Dealer's rights in respect of any transactions other than any Transaction.

19. Delivery of Cash.

For the avoidance of doubt, other than payment of the Prepayment Amount by Issuer, nothing in this Confirmation shall be interpreted as requiring Issuer to cash settle any Transaction hereunder, except in circumstances where cash settlement is within Issuer's control or in those circumstances in which holders of the Shares would also receive cash.

20. Counterparts.

This Confirmation may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party hereto may execute this Confirmation by signing and delivering one or more counterparts.

Remainder of Page Intentionally Blank

Please confirm that the foregoing correctly sets forth the terms of our agreement by executing this Confirmation and returning it to us.

Confirmed as of the date first written above:

PALO ALTO NETWORKS INC.

MORGAN STANLEY & CO. LLC

By: /s/ Catherine Portman

By: /s/ Darren McCarley

Name: Catherine Portman

Name: Darren McCarley

Title: VP, Treasury

Title: Managing Director

**CERTIFICATION PURSUANT TO SECTION 302(a)
OF THE SARBANES-OXLEY ACT OF 2002**

I, Nikesh Arora, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Palo Alto 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 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 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.

/s/ NIKESH ARORA

Nikesh Arora
Chief Executive Officer and Director

Date: May 21, 2020

**CERTIFICATION PURSUANT TO SECTION 302(a)
OF THE SARBANES-OXLEY ACT OF 2002**

I, Kathleen Bonanno, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Palo Alto 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 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 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.

/s/ KATHLEEN BONANNO

Kathleen Bonanno
Chief Financial Officer

Date: May 21, 2020

**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, Nikesh Arora, 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 on Form 10-Q of Palo Alto Networks, Inc. for the quarterly period ended April 30, 2020, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, 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 Palo Alto Networks, Inc.

/s/ NIKESH ARORA

Nikesh Arora

Chief Executive Officer and Director

Date: May 21, 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, Kathleen Bonanno, 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 on Form 10-Q of Palo Alto Networks, Inc. for the quarterly period ended April 30, 2020, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, 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 Palo Alto Networks, Inc.

/s/ KATHLEEN BONANNO

Kathleen Bonanno

Chief Financial Officer

Date: May 21, 2020