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 January 31, 2023

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	**20-2530195**
(State or other jurisdiction of incorporation or organization)	**(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	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)

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 February 10, 2023 was 302,607,942.

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PART I

ITEM 1. FINANCIAL STATEMENTS

PALO ALTO NETWORKS, INC.

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

	January 31, 2023 (unaudited)	July 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 1,346.3	$ 2,118.5
Short-term investments	2,000.6	1,516.0
Accounts receivable, net of allowance for credit losses of $8.8 and $8.9 at January 31, 2023 and July 31, 2022, respectively	1,278.1	2,142.5
Short-term deferred contract costs	313.4	317.7
Prepaid expenses and other current assets	467.4	320.2
Total current assets	5,405.8	6,414.9
Property and equipment, net	344.7	357.8
Operating lease right-of-use assets	251.1	242.0
Long-term investments	2,820.6	1,051.9
Long-term deferred contract costs	511.3	550.1
Goodwill	2,912.3	2,747.7
Intangible assets, net	361.7	384.5
Other assets	555.9	504.7
Total assets	$ 13,163.4	$ 12,253.6
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 128.3	$ 128.0
Accrued compensation	395.1	461.1
Accrued and other liabilities	328.9	399.2
Deferred revenue	3,942.5	3,641.2
Convertible senior notes, net	3,680.3	3,676.8
Total current liabilities	8,475.1	8,306.3
Long-term deferred revenue	3,611.5	3,352.8
Long-term operating lease liabilities	274.2	276.1
Other long-term liabilities	73.6	108.4
Total liabilities	12,434.4	12,043.6
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred stock; $0.0001 par value; 100.0 shares authorized; none issued and outstanding at January 31, 2023 and July 31, 2022	—	—
Common stock and additional paid-in capital; $0.0001 par value; 1,000.0 shares authorized; 302.4 and 298.8 shares issued and outstanding at January 31, 2023 and July 31, 2022, respectively	2,303.0	1,932.7
Accumulated other comprehensive loss	(11.1)	(55.6)
Accumulated deficit	(1,562.9)	(1,667.1)
Total stockholders' equity	729.0	210.0
Total liabilities and stockholders' equity	$ 13,163.4	$ 12,253.6

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 January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Revenue:				
Product	$ 352.9	$ 308.0	$ 682.9	$ 603.5
Subscription and support	1,302.2	1,008.9	2,535.6	1,960.8
Total revenue	1,655.1	1,316.9	3,218.5	2,564.3
Cost of revenue:				
Product	100.5	97.8	220.6	186.7
Subscription and support	365.7	307.5	707.5	599.2
Total cost of revenue	466.2	405.3	928.1	785.9
Total gross profit	1,188.9	911.6	2,290.4	1,778.4
Operating expenses:				
Research and development	404.1	359.0	775.9	698.5
Sales and marketing	625.5	528.8	1,240.5	1,034.7
General and administrative	119.4	97.7	218.9	201.8
Total operating expenses	1,149.0	985.5	2,235.3	1,935.0
Operating income (loss)	39.9	(73.9)	55.1	(156.6)
Interest expense	(6.9)	(6.8)	(13.7)	(13.7)
Other income (expense), net	51.4	(0.1)	77.4	(1.7)
Income (loss) before income taxes	84.4	(80.8)	118.8	(172.0)
Provision for income taxes	0.2	12.7	14.6	25.1
Net income (loss)	$ 84.2	$ (93.5)	$ 104.2	$ (197.1)
Net income (loss) per share, basic	$ 0.28	$ (0.32)	$ 0.35	$ (0.67)
Net income (loss) per share, diluted	$ 0.25	$ (0.32)	$ 0.31	$ (0.67)
Weighted-average shares used to compute net income (loss) per share, basic	302.3	294.5	301.0	293.7
Weighted-average shares used to compute net income (loss) per share, diluted	331.6	294.5	335.0	293.7

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

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

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Net income (loss)	$ 84.2	$ (93.5)	$ 104.2	$ (197.1)
Other comprehensive income (loss), net of tax:				
Change in unrealized gains (losses) on investments	33.5	(8.8)	5.7	(11.0)
Cash flow hedges:				
Change in unrealized gains (losses)	63.1	(14.7)	20.6	(16.6)
Net realized losses reclassified into earnings	3.4	4.6	18.2	7.3
Net change on cash flow hedges	66.5	(10.1)	38.8	(9.3)
Other comprehensive income (loss)	100.0	(18.9)	44.5	(20.3)
Comprehensive income (loss)	$ 184.2	$ (112.4)	$ 148.7	$ (217.4)

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

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

	Three Months Ended January 31, 2023					
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of October 31, 2022	302.3	$ 2,266.2	$ (111.1)	$ (1,647.1)	$ 508.0
Net income	—	—	—	84.2	84.2
Other comprehensive income	—	—	100.0	—	100.0
Issuance of common stock in connection with employee equity incentive plans	1.9	0.8	—	—	0.8
Taxes paid related to net share settlement of equity awards	—	(1.5)	—	—	(1.5)
Share-based compensation for equity-based awards	—	287.5	—	—	287.5
Repurchase and retirement of common stock	(1.8)	(250.0)	—	—	(250.0)
Balance as of January 31, 2023	302.4	$ 2,303.0	$ (11.1)	$ (1,562.9)	$ 729.0

	Three Months Ended January 31, 2022				
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of October 31, 2021	296.0	$ 2,033.9	$ (11.3)	$ (1,503.7)	$ 518.9
Net loss	—	—	—	(93.5)	(93.5)
Other comprehensive loss	—	—	(18.9)	—	(18.9)
Issuance of common stock in connection with employee equity incentive plans	2.5	0.3	—	—	0.3
Taxes paid related to net share settlement of equity awards	—	(8.6)	—	—	(8.6)
Share-based compensation for equity-based awards	—	269.6	—	—	269.6
Repurchase and retirement of common stock	(3.1)	(550.0)	—	—	(550.0)
Balance as of January 31, 2022	295.4	$ 1,745.2	$ (30.2)	$ (1,597.2)	$ 117.8

	Six Months Ended January 31, 2023					
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of July 31, 2022	298.8	$ 1,932.7	$ (55.6)	$ (1,667.1)	$ 210.0
Net income	—	—	—	104.2	104.2
Other comprehensive income	—	—	44.5	—	44.5
Issuance of common stock in connection with employee equity incentive plans	5.4	69.0	—	—	69.0
Taxes paid related to net share settlement of equity awards	—	(15.4)	—	—	(15.4)
Share-based compensation for equity-based awards	—	566.7	—	—	566.7
Repurchase and retirement of common stock	(1.8)	(250.0)	—	—	(250.0)
Balance as of January 31, 2023	302.4	$ 2,303.0	$ (11.1)	$ (1,562.9)	$ 729.0

	Six Months Ended January 31, 2022				
	Common Stock and Additional Paid-In Capital		Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of July 31, 2021	291.9	$ 2,311.2	$ (9.9)	$ (1,666.8)	$ 634.5
Cumulative-effect adjustment from adoption of new accounting pronouncement	—	(581.9)	—	266.7	(315.2)
Net loss	—	—	—	(197.1)	(197.1)
Other comprehensive loss	—	—	(20.3)	—	(20.3)
Issuance of common stock in connection with employee equity incentive plans	6.6	59.2	—	—	59.2
Taxes paid related to net share settlement of equity awards	—	(28.6)	—	—	(28.6)
Share-based compensation for equity-based awards	—	535.3	—	—	535.3
Repurchase and retirement of common stock	(3.1)	(550.0)	—	—	(550.0)
Balance as of January 31, 2022	295.4	$ 1,745.2	$ (30.2)	$ (1,597.2)	$ 117.8

See notes to condensed consolidated financial statements.

PALO ALTO NETWORKS, INC.

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

	Six Months Ended January 31, 2023	Six Months Ended January 31, 2022
Cash flows from operating activities		
Net income (loss)	$ 104.2	$ (197.1)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Share-based compensation for equity-based awards	549.3	524.2
Depreciation and amortization	140.6	138.7
Amortization of deferred contract costs	196.0	172.0
Amortization of debt discount and debt issuance costs	3.5	3.6
Reduction of operating lease right-of-use assets	24.6	25.1
Amortization of investment premiums, net of accretion of purchase discounts	(14.3)	7.3
Changes in operating assets and liabilities, net of effects of acquisitions:		
Accounts receivable, net	864.6	288.3
Deferred contract costs	(152.9)	(151.2)
Prepaid expenses and other assets	(159.6)	(72.9)
Accounts payable	0.7	59.8
Accrued compensation	(68.3)	(100.8)
Accrued and other liabilities	(116.7)	(50.7)
Deferred revenue	559.6	425.2
Net cash provided by operating activities	1,931.3	1,071.5
Cash flows from investing activities		
Purchases of investments	(3,719.3)	(1,055.3)
Proceeds from sales of investments	499.6	282.2
Proceeds from maturities of investments	998.9	401.6
Business acquisitions, net of cash acquired	(185.6)	(17.4)
Purchases of property, equipment, and other assets	(77.9)	(115.3)
Net cash used in investing activities	(2,484.3)	(504.2)
Cash flows from financing activities		
Repurchases of common stock	(272.7)	(550.0)
Proceeds from sales of shares through employee equity incentive plans	68.4	58.8
Payments for taxes related to net share settlement of equity awards	(15.4)	(28.6)
Net cash used in financing activities	(219.7)	(519.8)
Net increase (decrease) in cash, cash equivalents, and restricted cash	(772.7)	47.5
Cash, cash equivalents, and restricted cash - beginning of period	2,124.8	1,880.1
Cash, cash equivalents, and restricted cash - end of period	$ 1,352.1	$ 1,927.6
Reconciliation of cash, cash equivalents, and restricted cash to the condensed consolidated balance sheets		
Cash and cash equivalents	$ 1,346.3	$ 1,922.7
Restricted cash included in prepaid expenses and other current assets	5.8	4.9
Total cash, cash equivalents, and restricted cash	$ 1,352.1	$ 1,927.6

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"), headquartered in Santa Clara, California, was incorporated in March 2005 under the laws of the State of Delaware and commenced operations in April 2005. We empower enterprises, organizations, service providers, and government entities to secure their users, networks, clouds, and endpoints by delivering comprehensive cybersecurity backed by artificial intelligence and automation.

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, 2022, filed with the Securities and Exchange Commission ("SEC") on September 6, 2022. Our condensed consolidated financial statements include our accounts and our wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

The condensed consolidated financial statements are unaudited but include all adjustments of a normal recurring nature necessary for a fair presentation of our quarterly results. 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, 2022.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported and disclosed in the condensed consolidated financial statements and the accompanying notes. We base our estimates on assumptions, both historical and forward looking, 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.

Summary of Significant Accounting Policies

There have been no material changes to our significant accounting policies as of and for the six months ended January 31, 2023, as compared to the significant accounting policies described in our Annual Report on Form 10-K for the fiscal year ended July 31, 2022.

Stock Split Effected in the Form of a Stock Dividend ("Stock Split")

On September 13, 2022, we executed a three-for-one stock split of our common stock, effected in the form of a stock dividend. The par value per share of our common stock remains unchanged at $0.001 per share after the Stock Split. All references made to share or per share amounts on the accompanying condensed consolidated financial statements and applicable disclosures have been retroactively adjusted to reflect the effects of the Stock Split.

2. Revenue

Disaggregation of Revenue

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

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Revenue:				
Americas				
United States	$ 1,042.3	$ 858.6	$ 2,048.6	$ 1,670.3
Other Americas	74.7	57.3	139.1	112.3
Total Americas	1,117.0	915.9	2,187.7	1,782.6
Europe, the Middle East, and Africa ("EMEA")	341.5	252.2	649.4	486.0
Asia Pacific and Japan ("APAC")	196.6	148.8	381.4	295.7
Total revenue	$ 1,655.1	$ 1,316.9	$ 3,218.5	$ 2,564.3

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

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Revenue:				
Product	$ 352.9	$ 308.0	$ 682.9	$ 603.5
Subscription and support				
Subscription	815.4	618.0	1,579.4	1,196.8
Support	486.8	390.9	956.2	764.0
Total subscription and support	1,302.2	1,008.9	2,535.6	1,960.8
Total revenue	$ 1,655.1	$ 1,316.9	$ 3,218.5	$ 2,564.3

Deferred Revenue

During the six months ended January 31, 2023 and 2022, we recognized approximately $2.1 billion and $1.6 billion of revenue pertaining to amounts that were deferred as of July 31, 2022 and 2021, respectively.

Remaining Performance Obligations

Remaining performance obligations were $8.8 billion as of January 31, 2023, of which we expect to recognize as revenue approximately $4.4 billion over the next 12 months and the remainder thereafter.

3. Fair Value Measurements

The following table presents our financial assets and liabilities measured at fair value on a recurring basis as of January 31, 2023 and July 31, 2022 (in millions):

	January 31, 2023				July 31, 2022			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash equivalents:								
Money market funds	$ 655.9	$ —	$ —	$ 655.9	$ 1,205.2	$ —	$ —	$ 1,205.2
Certificates of deposit	—	6.5	—	6.5	—	155.3	—	155.3
Commercial paper	—	175.2	—	175.2	—	69.1	—	69.1
Corporate debt securities	—	24.5	—	24.5	—	19.5	—	19.5
U.S. government and agency securities	—	—	—	—	—	10.0	—	10.0
Non-U.S. government and agency securities	—	—	—	—	—	5.1	—	5.1
Total cash equivalents	655.9	206.2	—	862.1	1,205.2	259.0	—	1,464.2
Short-term investments:								
Certificates of deposit	—	210.8	—	210.8	—	116.4	—	116.4
Commercial paper	—	630.9	—	630.9	—	79.0	—	79.0
Corporate debt securities	—	701.0	—	701.0	—	505.0	—	505.0
U.S. government and agency securities	—	444.2	—	444.2	—	798.2	—	798.2
Non-U.S. government and agency securities	—	13.7	—	13.7	—	17.4	—	17.4
Total short-term investments	—	2,000.6	—	2,000.6	—	1,516.0	—	1,516.0
Long-term investments:								
Corporate debt securities	—	2,217.1	—	2,217.1	—	761.2	—	761.2
U.S. government and agency securities	—	68.9	—	68.9	—	118.2	—	118.2
Non-U.S. government and agency securities	—	54.4	—	54.4	—	—	—	—
Asset-backed securities	—	480.2	—	480.2	—	172.5	—	172.5
Total long-term investments	—	2,820.6	—	2,820.6	—	1,051.9	—	1,051.9

	January 31, 2023				July 31, 2022			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Prepaid expenses and other current assets:								
Foreign currency forward contracts	—	25.1	—	25.1	—	2.4	—	[illegible]
Total prepaid expenses and other current assets	—	25.1	—	25.1	—	2.4	—	[illegible]
Other assets:								
Foreign currency forward contracts	—	9.1	—	9.1	—	0.7	—	[illegible]
Total other assets	—	9.1	—	9.1	—	0.7	—	[illegible]
Total assets measured at fair value	$ 655.9	$ 5,061.6	$ —	$ 5,717.5	$ 1,205.2	$ 2,830.0	$ —	$ 4,03[illegible]
Accrued and other liabilities:								
Foreign currency forward contracts	$ —	$ 14.2	$ —	$ 14.2	$ —	$ 32.4	$ —	$ [illegible]
Total accrued and other liabilities	—	14.2	—	14.2	—	32.4	—	[illegible]
Other long-term liabilities:								
Foreign currency forward contracts	—	2.6	—	2.6	—	0.8	—	[illegible]
Total other long-term liabilities	—	2.6	—	2.6	—	0.8	—	[illegible]
Total liabilities measured at fair value	$ —	$ 16.8	$ —	$ 16.8	$ —	$ 33.2	$ —	$ [illegible]

Refer to Note 9. Debt for the carrying amount and estimated fair value of our convertible senior notes as of January 31, 2023 and July 31, 2022.

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 January 31, 2023 and July 31, 2022 (in millions):

	January 31, 2023			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash equivalents:				
Certificates of deposit	$ 6.5	$ —	$ —	$ 6.5
Commercial paper	175.2	—	—	175.2
Corporate debt securities	24.5	—	—	24.5
Total available-for-sale cash equivalents	$ 206.2	$ —	$ —	$ 206.2
Investments:				
Certificates of deposit	$ 210.8	$ —	$ —	$ 210.8
Commercial paper	631.4	0.2	(0.7)	630.9
Corporate debt securities	2,927.9	9.0	(18.8)	2,918.1
U.S. government and agency securities	518.4	—	(5.3)	513.1
Non-U.S. government and agency securities	68.8	—	(0.7)	68.1
Asset-backed securities	481.7	1.0	(2.5)	480.2
Total available-for-sale investments	$ 4,839.0	$ 10.2	$ (28.0)	$ 4,821.2

	July 31, 2022			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Cash equivalents:				
Certificates of deposit	$ 155.3	$ —	$ —	$ 155.3
Commercial paper	69.1	—	—	69.1
Corporate debt securities	19.5	—	—	19.5
U.S. government and agency securities	10.0	—	—	10.0
Non-U.S. government and agency securities	5.0	0.1	—	5.1
Total available-for-sale cash equivalents	$ 258.9	$ 0.1	$ —	$ 259.0
Investments:				
Certificates of deposit	$ 116.5	$ —	$ (0.1)	$ 116.4
Commercial paper	79.1	—	(0.1)	79.0
Corporate debt securities	1,276.8	1.3	(11.9)	1,266.2
U.S. government and agency securities	928.1	0.1	(11.8)	916.4
Non-U.S. government and agency securities	17.6	—	(0.2)	17.4
Asset-backed securities	$ 173.4	$ 0.2	$ (1.1)	$ 172.5
Total available-for-sale investments	$ 2,591.5	$ 1.6	$ (25.2)	$ 2,567.9

As of January 31, 2023, the gross unrealized losses that have been in a continuous unrealized loss position for less than 12 months were $17.2 million, which were related to $2.5 billion of available-for-sale debt securities, and the gross unrealized losses that have been in a continuous unrealized loss position for more than 12 months were $10.8 million, which were related to $571.6 million of available-for-sale debt securities. As of July 31, 2022 the gross unrealized losses that have been in a continuous unrealized loss position for less than 12 months were $24.8 million, which were related to $2.0 billion of available-for-sale debt securities, and the gross unrealized losses that have been in a continuous unrealized loss position for more than 12 months were not material.

Unrealized losses related to our available-for-sale debt securities are due to interest rate fluctuations as opposed to credit quality. We do not intend to sell any of the securities in an unrealized loss position 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. We did not recognize any credit losses related to our available-for-sale debt securities during the three and six months ended January 31, 2023 and 2022.

The following table summarizes the amortized cost and fair value of our available-for-sale debt securities as of January 31, 2023, by contractual years-to-maturity (in millions):

	Amortized Cost	Fair Value
Due within one year	$ 2,217.6	$ 2,206.8
Due between one and three years	2,658.4	2,651.4
Due between three to five years	123.8	123.5
Due between five to ten years	45.4	45.7
Total	$ 5,045.2	$ 5,027.4

Marketable Equity Securities

Marketable equity securities consist of money market funds and are included in cash and cash equivalents on our condensed consolidated balance sheets. As of January 31, 2023 and July 31, 2022, the carrying values of our marketable equity securities were $655.9 million and $1.2 billion, respectively. There were no unrealized gains or losses recognized for these securities during the three and six months ended January 31, 2023 and 2022.

5. Financing Receivables

The following table summarizes our short-term and long-term financing receivables as of January 31, 2023 and July 31, 2022 (in millions):

	January 31, 2023	July 31, 2022
Short-term financing receivables, gross	$ 174.3	$ 112.6
Allowance for credit losses	(2.5)	(1.3)
Short-term financing receivables, net	$ 171.8	$ 111.3
Long-term financing receivables, gross	$ 222.0	$ 194.6
Allowance for credit losses	(3.9)	(2.5)
Long-term financing receivables, net	$ 218.1	$ 192.1

There was no significant activity in allowance for credit losses during the three and six months ended January 31, 2023 and 2022. Past due amounts on financing receivables were not material as of January 31, 2023 and July 31, 2022.

6. Derivative Instruments

We are exposed to foreign currency exchange 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 24 months or less, which we designate as cash flow hedges, to manage the foreign currency exchange risk associated with our operating expenditures.

As of January 31, 2023 and July 31, 2022, the total notional amount of our outstanding foreign currency forward contracts was $1.1 billion and $856.9 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 January 31, 2023 and July 31, 2022.

As of January 31, 2023, unrealized gains in accumulated other comprehensive income (“AOCI”) related to our cash flow hedges were $14.2 million, of which $11.9 million of gains are expected to be recognized into earnings within the next 12 months. As of July 31, 2022, unrealized losses in AOCI related to our cash flow hedges were $24.8 million, of which $22.0 million of losses are expected to be recognized into earnings within the next 12 months.

7. Acquisition

Cider Security Ltd.

On December 20, 2022, we completed our acquisition of Cider Security Ltd. (“Cider”), a privately-held cloud security company. We expect the acquisition will support Prisma Cloud’s platform approach to securing the entire application security lifecycle from code-to-cloud. The total purchase consideration for the acquisition of Cider was $198.3 million, which consisted of the following (in millions):

	Amount
Cash	$ 198.0
Fair value of replacement awards	0.3
Total	$ 198.3

As part of the acquisition, we issued replacement equity awards, which included 0.2 million shares of our restricted common stock. The total fair value of the replacement equity awards was $48.6 million, 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	$ 164.6
Identified intangible assets	27.8
Cash	12.4
Net liabilities assumed	(6.5)
Total	$ 198.3

Goodwill generated from this business combination is primarily attributable to the assembled workforce and expected post-acquisition synergies from integrating Cider technology into our platforms. The goodwill is expected to be deductible for U.S. income tax purposes.

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

	Fair Value		Estimated Useful Life
Developed technology	$	27.8	5 years

8. Goodwill and Intangible Assets

Goodwill

The following table presents details of our goodwill during the six months ended January 31, 2023 (in millions):

	Amount	
Balance as of July 31, 2022	$	2,747.7
Goodwill acquired		164.6
Balance as of January 31, 2023	$	2,912.3

Purchased Intangible Assets

The following table presents details of our purchased intangible assets as of January 31, 2023 and July 31, 2022 (in millions):

	January 31, 2023						July 31, 2022					
	Gross Carrying Amount		Accumulated Amortization		Net Carrying Amount		Gross Carrying Amount		Accumulated Amortization		Net Carrying Amount	
Intangible assets subject to amortization:												
Developed technology	$	628.5	$	(390.2)	$	238.3	$	600.7	$	(347.9)	$	252.8
Customer relationships		172.7		(63.1)		109.6		172.7		(52.2)		120.5
Acquired intellectual property		14.6		(5.4)		9.2		11.3		(4.8)		6.5
Trade name and trademarks		9.4		(9.4)		—		9.4		(9.4)		—
Other		0.9		(0.2)		0.7		0.9		(0.1)		0.8
Total intangible assets subject to amortization		826.1		(468.3)		357.8		795.0		(414.4)		380.6
Intangible assets not subject to amortization:												
In-process research and development		3.9		—		3.9		3.9		—		3.9
Total purchased intangible assets	$	830.0	$	(468.3)	$	361.7	$	798.9	$	(414.4)	$	384.5

We recognized amortization expense of $24.8 million and $53.9 million for the three and six months ended January 31, 2023, respectively, and $31.7 million and $63.5 million for the three and six months ended January 31, 2022, respectively.

The following table summarizes estimated future amortization expense of our intangible assets subject to amortization as of January 31, 2023 (in millions):

			Fiscal years ending July 31,											
	Total		Remaining 2023		2024		2025		2026		2027		2028 and Thereafter	
Future amortization expense	$	357.8	$	50.7	$	97.1	$	83.4	$	61.6	$	34.6	$	30.4

9. Debt

Convertible Senior Notes

In July 2018, we issued $1.7 billion aggregate principal amount of 0.75% Convertible Senior Notes due 2023 (the "2023 Notes") and in June 2020, we issued $2.0 billion aggregate principal amount of 0.375% Convertible Senior Notes due 2025 (the "2025 Notes," and together with the 2023 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 2025 Notes bear interest at a fixed rate of 0.375% per year, payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2020. Each series of the convertible notes is governed by an indenture between us, as the issuer, and U.S. Bank National Association, as Trustee (individually, each an "Indenture," and together, the "Indentures"). The Notes of each series are unsecured, unsubordinated obligations and the applicable Indenture governing each series of 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 2023 Notes and the 2025 Notes mature on July 1, 2023 and June 1, 2025, respectively. We cannot redeem the 2023 Notes prior to maturity. We may redeem for cash all or any portion of the 2025 Notes, at our option, on or after June 5, 2023, and prior to the 31st scheduled trading day immediately preceding the maturity date if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days during any 30 consecutive trading day period ending on and including the trading day preceding the date on which we provide notice of redemption. The redemption will be at a price equal to 100% of the principal amount of the 2025 Notes and adjusted for interest. If we call any or all of the 2025 Notes for redemption, holders may convert such 2025 Notes called for redemption at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date.

The following table presents details of our Notes (number of shares in millions):

	Conversion Rate per $1,000 Principal	Initial Conversion Price	Convertible Date	Initial Number of Shares
2023 Notes	11.2635	$ 88.78	April 1, 2023	19.1
2025 Notes	10.0806	$ 99.20	March 1, 2025	20.1

Holders of the Notes may surrender their Notes for conversion at their option at any time prior to the close of business on the business day immediately preceding their respective convertible dates only under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarters ending on October 31, 2018 and October 31, 2020 for the 2023 Notes and the 2025 Notes, respectively (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 respective 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 applicable series of 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 respective Notes on each such trading day; or
- upon the occurrence of specified corporate events.

On or after the respective convertible date, holders may surrender all or any portion of their Notes for conversion at any time prior to the close of business on the second scheduled trading day immediately preceding the applicable maturity date regardless of the foregoing conditions, and such conversions will be settled upon the applicable maturity date. Upon conversion, holders of the Notes of a series will receive cash equal to the aggregate principal amount of the Notes of such series 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 Notes of such series being converted.

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

The sale price condition for the Notes was met during the fiscal quarter ended January 31, 2023, and as a result, holders may convert their Notes at any time during the fiscal quarter ending April 30, 2023. The net carrying amount of the Notes was classified as a current liability on our condensed consolidated balance sheet as of January 31, 2023.

The following table sets forth the components of the Notes (in millions):

	January 31, 2023			July 31, 2022		
	2023 Notes	2025 Notes	Total	2023 Notes	2025 Notes	Total
Liability component:						
Principal	$ 1,691.9	$ 1,999.4	$ 3,691.3	$ 1,691.9	$ 1,999.4	$ 3,691.3
Less: debt discount and debt issuance costs, net of amortization	(1.2)	(9.8)	(11.0)	(2.6)	(11.9)	(14.5)
Net carrying amount	$ 1,690.7	$ 1,989.6	$ 3,680.3	$ 1,689.3	$ 1,987.5	$ 3,676.8

The total estimated fair value of the 2023 Notes and 2025 Notes were $3.0 billion and $3.3 billion at January 31, 2023, respectively, and $3.2 billion and $3.5 billion at July 31, 2022, respectively. The fair value was determined based on the closing trading price per $100 of the applicable series of the Notes as of the last day of trading for the period. We consider the fair value of the Notes at January 31, 2023 and July 31, 2022 to be a Level 2 measurement. The fair value of the Notes is primarily affected by the trading price of our common stock and market interest rates.

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

	Three Months Ended January 31,						Six Months Ended January 31,				
	2023			2022			2023			2022	
	2023 Notes	2025 Notes	Total	2023 Notes	2025 Notes	Total	2023 Notes	2025 Notes	Total	2023 Notes	2025 Notes
Contractual interest expense	$ 3.2	$ 2.0	$ 5.2	$ 3.1	$ 1.9	$ 5.0	$ 6.4	$ 3.8	$ 10.2	$ 6.3	$ 3.8
Amortization of debt issuance costs	0.7	1.0	1.7	0.7	1.1	1.8	1.4	2.1	3.5	1.4	2.2
Total interest expense	$ 3.9	$ 3.0	$ 6.9	$ 3.8	$ 3.0	$ 6.8	$ 7.8	$ 5.9	$ 13.7	$ 7.7	$ 6.0
Effective interest rate	0.9 %	0.6 %		0.9 %	0.6 %		0.9 %	0.6 %		0.9 %	0.6 %

Note Hedges

To minimize the impact of potential economic dilution upon conversion of our Notes, we entered into separate convertible note hedge transactions (the "2023 Note Hedges," with respect to the 2023 Notes, the "2025 Note Hedges," with respect to the 2025 Notes, and the 2023 Notes Hedges together with 2025 Note Hedges, the "Note Hedges") with respect to our common stock concurrent with the issuance of each series of the Notes.

The following table presents details of our Note Hedges (in millions):

	Initial Number of Shares	Aggregate Purchase
2023 Note Hedges	19.1	$ 332.0
2025 Note Hedges	20.1	$ 370.8

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

Warrants

Separately, but concurrently with the issuance of each series of our Notes, we entered into transactions whereby we sold warrants (the "2023 Warrants," with respect to the 2023 Notes, the "2025 Warrants," with respect to the 2025 Notes, and the 2023 Warrants together with the 2025 Warrants, the "Warrants") to acquire shares of our common stock, subject to anti-dilution adjustments. The 2023 Warrants and 2025 Warrants are exercisable beginning October 2023 and September 2025, respectively.

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

	Initial Number of Shares	Strike Price per Share	Aggregate Proceeds
2023 Warrants	19.1	$ 139.27	$ 145.4
2025 Warrants	20.1	$ 136.16	$ 202.8

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 on our condensed consolidated balance sheets.

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 currently 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. In March 2021, the ICE Benchmark Administration, the administrator of LIBO Rate, announced that it will cease publication of the LIBO Rate by June 2023. Under the terms of our Credit Facility, in the event of the discontinuance of the LIBO Rate, a mutually agreed-upon alternative benchmark rate will be established to replace the LIBO Rate, which may include the Secured Overnight Financing Rate ("SOFR"). We do not anticipate that the discontinuance of the LIBO Rate will materially impact our liquidity or financial position.

As of January 31, 2023, there were no amounts outstanding and we were in compliance with all covenants under the Credit Agreement.

10. Commitments and Contingencies

Purchase Commitments

Manufacturing Purchase Commitments

In order to reduce manufacturing lead times and plan for adequate supply, we enter into agreements with manufacturing partners and component suppliers to procure inventory based on our demand forecasts. The following table presents details of the aggregate future minimum or fixed purchase commitments under these arrangements, excluding obligations under contracts that we can cancel as of January 31, 2023 (in millions):

		Fiscal years ending July 31,					
	Total	Remaining 2023	2024	2025	2026	2027	2028 and Thereafter
Manufacturing purchase commitments	$ 293.5	$ 120.5	$ 98.0	$ 35.0	$ 40.0	$ —	$ —

Other Purchase Commitments

We have entered into various non-cancelable agreements with certain service providers, under which we are committed to minimum or fixed purchases. The following table presents details of the aggregate future non-cancelable purchase commitments under these agreements as of January 31, 2023 (in millions):

		Fiscal years ending July 31,					
	Total	Remaining 2023	2024	2025	2026	2027	2028 and Thereafter
Other purchase commitments	$ 1,701.2	$ 54.2	$ 228.1	$ 416.7	$ 517.5	$ 483.9	$ 0.8

Additionally, we have a $159.6 million minimum purchase commitment with a service provider through September 2027 with no specified annual commitments.

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 January 31, 2023, 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.

11. 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. In December 2020, August 2021, and August 2022, our board of directors authorized additional $700.0 million, $676.1 million, and $915.0 million increases to this share repurchase program, respectively, bringing the total authorization under this share repurchase program to $3.3 billion (our "current authorization"). The expiration date of our current authorization was extended to December 31, 2023, and our repurchase program may be suspended or discontinued at any time. 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 following table summarizes the share repurchase activity under our share repurchase program (in millions, except per share amounts):

	Three and Six Months Ended January 31,	
	2023	2022
Number of shares repurchased	1.8	3.1
Weighted average price per share (1)	$ 138.65	$ 177.93
Aggregate purchase price (1)	$ 250.0	$ 550.0

(1) Includes transaction costs

In addition to the share repurchase activity summarized in the table above, during the six months ended January 31, 2023, we paid $22.7 million related to share repurchases of our common stock that were not settled as of July 31, 2022.

As of January 31, 2023, $750.0 million remained available for future share repurchases under our current repurchase authorization. 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.

12. Equity Award Plans

Restricted Stock Unit ("RSU") and Performance-Based Stock Unit ("PSU") Activities

The following table summarizes the RSU and PSU activity under our stock plans during the six months ended January 31, 2023 (in millions, except per share amounts):

	RSUs Outstanding			PSUs Outstanding		
	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Aggregate Intrinsic Value	Number of Shares	Weighted-Average Grant-Date Fair Value Per Share	Aggregate Intrinsic Value
Balance—July 31, 2022	14.8	$ 115.51	$ 2,456.9	3.1	$ 106.38	$ 513.7
Granted(1)	4.8	$ 163.23		2.8	$ 141.40	
Vested	(3.4)	$ 102.07		(1.2)	$ 115.67	
Forfeited	(0.8)	$ 119.48		(0.2)	$ 135.26	
Balance—January 31, 2023	15.4	$ 133.47	$ 2,442.8	4.5	$ 124.21	$ 711.5

(1) For PSUs, shares granted represent the aggregate maximum number of shares that may be earned and issued with respect to these awards over their full terms.

Our RSUs generally vest over a period of three to four years from the date of grant. Until vested, RSUs do not have the voting and dividend participation rights of common stock and the shares underlying the awards are not considered issued and outstanding.

Our PSUs generally vest over a period of one to four years from the date of grant. The actual number of PSUs earned and eligible to vest is determined based on the level of achievement against certain performance conditions such as revenue growth, billings and operating margin, or individual performance for the fiscal year, or market conditions, or a combination of performance and market conditions for certain awards.

During the six months ended January 31, 2023, we granted 0.8 million shares of PSUs with both service and market conditions to certain employees. The market conditions are satisfied when the price of our common stock is equal to or exceeds stock price targets of $233.33, $266.67, $300.00, and $333.33 based on the average closing price for 30 consecutive trading days during the three- or four-year period following the date of grant. To the extent that the market conditions have been met, one-fourth of the awards will vest on each anniversary date of the grant date, subject to continued service. As of January 31, 2023, the stock price targets for these PSU awards have not been met.

During the six months ended January 31, 2023 and 2022, we granted 1.6 million and 0.6 million shares of PSUs, respectively, which contain service, performance and market conditions, to certain employees. The service conditions are satisfied over a period of one to three years. The performance conditions are based on revenue growth or billing growth. The market condition is measured based on our total shareholder return ("TSR") relative to the TSR of the companies listed in the Standard & Poor's 500 index. As of January 31, 2023, we have approved 2.3 million shares of PSUs, which will be granted upon the performance condition being established during the next two years.

The fair value of the PSUs subject to market conditions is estimated on the grant date using a Monte Carlo simulation model. The following table summarizes the assumptions used and the grant-date fair value of these PSUs granted:

	Six Months Ended January 31,	
	2023	2022
Volatility	39.6% - 44.8%	36.0% - 38.0%
Expected term (in years)	1.0 - 4.0	1.9 - 3.0
Dividend yield	0.0 %	0.0 %
Risk-free interest rate	3.2% - 3.6%	0.2% - 0.4%
Grant-date fair value per share	$105.60 - $280.41	$137.16 - $140.22

Performance Stock Option ("PSO") Activities

We have granted PSOs with both service and market conditions to certain executives. The market conditions were achieved when certain stock price targets were met. As of January 31, 2023, all stock price targets for our outstanding PSOs have been satisfied. One-fourth of the PSOs will vest on each anniversary date of the grant date, subject to continued service. The contractual term for the PSOs outstanding ranges from seven to seven and a half years following the date of grant in fiscal year 2018 and 2019.

The following table summarizes the PSO activity under our stock plans during the six months ended January 31, 2023 (in millions, except per share amounts):

	PSOs Outstanding			
	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance—July 31, 2022	8.0	$ 64.85	3.2	$ 809.3
Balance—January 31, 2023	8.0	$ 64.85	2.7	$ 747.7
Exercisable—January 31, 2023	8.0	$ 64.85	2.7	$ 747.7

Share-Based Compensation

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

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Cost of product revenue	$ 2.6	$ 2.3	$ 5.0	$ 4.6
Cost of subscription and support revenue	30.7	27.7	59.5	54.4
Research and development	129.7	123.6	247.7	249.2
Sales and marketing	88.4	79.8	175.8	153.1
General and administrative	38.5	31.7	67.9	64.1
Total share-based compensation	$ 289.9	$ 265.1	$ 555.9	$ 525.4

As of January 31, 2023, total compensation cost related to unvested share-based awards not yet recognized was $2.3 billion. This cost is expected to be amortized over a weighted-average period of approximately 2.7 years.

13. Income Taxes

For the three and six months ended January 31, 2023, our provision for income taxes reflected an effective tax rate of 0.2% and 12.3%, respectively. For the three and six months ended January 31, 2022, our provision for income taxes reflected an effective tax rate of negative 15.7% and negative 14.6%, respectively.

Our income taxes for the three and six months ended January 31, 2023 were primarily due to U.S. federal and state income taxes, withholding taxes, and foreign income taxes. Our effective tax rate varied for the three and six months ended January 31, 2023 compared to the same periods in 2022 primarily due to an increase in current taxes driven by capitalization of research and development expenditures with no offsetting deferred benefit as a result of our valuation allowance. This increase was offset by a tax benefit from a release of tax reserves related to uncertain tax positions resulting from an agreement with a non-U.S. tax authority to pay $28.9 million to settle a tax audit during the three months ended January 31, 2023.

Our income taxes for the three and six months ended January 31, 2022 were primarily due to foreign income taxes and withholding taxes. Our effective tax rates differed from the U.S. statutory tax rate primarily due to changes in our valuation allowance.

As of January 31, 2023, our gross uncertain tax positions were $396.0 million and our interest and penalties were $6.7 million. We recognize both interest and penalties associated with uncertain tax positions as a component of income tax.

14. Net Income (Loss) Per Share

Basic net income (loss) per share is computed by dividing net income (loss) by basic weighted-average shares outstanding during the period. Diluted net income (loss) per share is computed by dividing net income (loss) by diluted weighted-average shares outstanding during the period giving effect to all potentially dilutive securities to the extent they are dilutive. Potentially dilutive securities include shares issuable upon conversion of our convertible senior notes using the if-converted method. Potentially dilutive securities also include warrants related to the issuance of convertible senior notes and equity awards under our employee equity incentive plans using the treasury stock method.

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

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Net income (loss)	$ 84.2	$ (93.5)	$ 104.2	$ (197.1)
Weighted-average shares used to compute net income (loss) per share, basic	302.3	294.5	301.0	293.7
Weighted-average effect of potentially dilutive securities:				
Convertible senior notes	15.2	—	16.5	—
Warrants related to the issuance of convertible senior notes	4.1	—	6.0	—
Employee equity incentive plans	10.0	—	11.5	—
Weighted-average shares used to compute net income (loss) per share, diluted	331.6	294.5	335.0	293.7
Net income (loss) per share, basic	$ 0.28	$ (0.32)	$ 0.35	$ (0.67)
Net income (loss) per share, diluted	$ 0.25	$ (0.32)	$ 0.31	$ (0.67)

The following securities were excluded from the computation of diluted net income (loss) per share of common stock as their effect would have been antidilutive or issuance of such shares is contingent upon the satisfaction of certain conditions which were not satisfied by the end of the applicable period (in millions):

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Convertible senior notes	—	39.2	—	39.2
Warrants related to the issuance of convertible senior notes	—	39.2	—	39.2
Employee equity incentive plans	8.9	32.0	5.8	32.0
Total	8.9	110.4	5.8	110.4

15. Other Income (Expense), Net

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

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
Interest income	$ 56.6	$ 1.9	$ 86.0	$ 3.3
Foreign currency exchange gains (losses), net	(7.3)	(1.7)	(2.9)	(5.6)
Other	2.1	(0.3)	(5.7)	0.6
Total other income (expense), net	$ 51.4	$ (0.1)	$ 77.4	$ (1.7)

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: our expectation of achieving and maintaining profitability under U.S. GAAP; the effects of supply chain challenges and the global chip and component shortages and other factors affecting the manufacture, delivery and cost of certain of our products; 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 cyclicality from quarter to quarter; expectations and intentions with respect to the products, technologies and businesses that we acquire and introduce; our strategy of acquiring complementary businesses and our ability to successfully acquire and integrate businesses and technologies; 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, investments and available financing instruments to meet our cash needs for the foreseeable future; our intentions to sell any of our available-for-sale debt instruments; capital expenditures and share repurchases; expectations to increase customer financing activities in the future; expectations regarding the potential impacts of the coronavirus disease discovered in 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 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 six months ended January 31, 2023 to the three and six months ended January 31, 2022.
- ***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 empower enterprises, organizations, service providers, and government entities to protect themselves against today's most sophisticated cyber threats. Our cybersecurity platforms and services help secure enterprise users, networks, clouds, and endpoints by delivering comprehensive cybersecurity backed by industry-leading artificial intelligence and automation. We are a leading provider of zero trust solutions that start with the next-generation of zero trust network access to secure remote workforces and extend into securing all users, applications and infrastructure with zero trust principles. Our security solutions are designed to increase security while reducing our customers' total cost of ownership by improving operational efficiency and eliminating the need for siloed point products. Our company focuses on delivering value in five fundamental areas:

Network Security:

- Our network security platform, which includes our ML-Powered Next-Generation Firewalls, available in a number of form factors, including physical, virtual, and containerized appliances, as well as a cloud-delivered service, has been a leader in the industry for eleven consecutive years. Our network security platform also includes our Cloud-Delivered Security Services, such as Advanced Threat Prevention, Advanced WildFire®, Advanced URL Filtering, DNS Security, IoT Security, GlobalProtect™, Enterprise Data Loss Prevention ("Enterprise DLP"), AIOps, and SaaS Security. Through these add-on security services, our customers are able to secure their applications, users, devices, and content across our network security platform as well as the Prisma® and Cortex® product lines. Panorama™, our network security management solution, available as hardware or virtual machine, can centrally manage our network security platform irrespective of form factor, location, or scale. Our software-defined wide-area network ("SD-WAN") is integrated with PAN-OS, so that our end-customers can get the security features of our PAN-OS ML-Powered Next-Generation Firewall together with SD-WAN functionality.

Secure Access Service Edge:

- Prisma Access is our next-generation cloud-delivered security platform that provides secure network access for employees across all locations with continuous threat inspection and unified policy management for information technology. We recently introduced Zero Trust Network Access ("ZTNA") 2.0, which addresses major shortcomings in the first-generation ZTNA products in the industry (which we refer to as ZTNA 1.0). Prisma Access delivers granular least-privileged access to all applications and data across the enterprise, while continuously verifying trust and inspecting traffic for security. When combined with Prisma SD-WAN, Prisma Access provides a comprehensive single-vendor Secure Access Service Edge ("SASE") offering that we call Prisma SASE, that is used to secure hybrid workforces and enable the cloud-delivered branch.

Cloud Security:

- As a comprehensive Cloud Native Application Protection Platform ("CNAPP"), Prisma Cloud secures hybrid and multi-cloud environments with continuous visibility and threat prevention across the entire application lifecycle. With code to cloud security coverage that encompasses code, infrastructure, workloads, data, networks, web applications, and APIs, Prisma Cloud is the only platform that addresses security needs at every step in the cloud journey. For inline network security on multi and hybrid-cloud environments, we also offer our VM-Series and CN-Series Firewall offerings.

Security Operations:

- We deliver the next generation of endpoint security, security analytics and security automation solutions through our Cortex portfolio. These include our industry-leading extended detection and response solution Cortex XDR® to prevent, detect, and respond to complex cybersecurity attacks, Cortex XSOAR® for security orchestration, automation, and response ("SOAR"), and Cortex Xpanse® for attack surface management ("ASM"). In October 2022, we released Cortex XSIAM®, our autonomous Security Operations Center ("SOC") platform that delivers unified security operations functions including automated threat detection and response, user behavioral analytics, threat intelligence management, orchestration and workflow, endpoint protection, and cloud detection and response. These products are delivered as software or SaaS subscriptions.

Threat Intelligence and Security Consulting (Unit 42):

- We enable security teams with up-to-date threat intelligence and deep cybersecurity expertise before, during and after attacks through our Unit 42 threat research and security consulting team. Unit 42 offers incident response, risk management, proactive cybersecurity assessment services, and managed detection and response and threat hunting services.

For the second quarter of fiscal 2023 and 2022, total revenue was $1.7 billion and $1.3 billion, respectively, representing year-over-year growth of 25.7%. Our growth reflects the increased adoption of our portfolio, which consists of product, subscriptions, and support. We believe our portfolio will enable us to benefit from recurring revenues and new revenues as we continue to grow our end-customer base. As of January 31, 2023, we had end-customers in over 180 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 almost all of the Fortune 100 companies and a majority of the Global 2000 companies. We maintain a field sales force that works closely with our channel partners in developing sales opportunities. We primarily 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 grew to $352.9 million, or 21.3% of total revenue, for the second quarter of fiscal 2023, representing year-over-year growth of 14.6%. Product revenue is primarily generated from sales of our appliances, primarily our ML-Powered Next-Generation Firewall. Product revenue also includes revenue derived from software licenses of Panaroma, SD-WAN, and the VM-Series. Our ML-Powered Next-Generation Firewall incorporates our PAN-OS operating system, which provides a consistent set of capabilities across our entire network security product line. Our appliances and software licenses include a broad set of built-in networking and security features and functionalities. Our products are designed for different performance requirements throughout an organization, ranging from our PA-410, which is designed for small organizations and remote or branch offices, to our top-of-the-line PA-7080, which is designed for large-scale data centers and service provider use. 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, and in our CN-Series container firewalls, which secure container environments and traffic.

Our subscription and support revenue grew to $1.3 billion, or 78.7% of total revenue, for the second quarter of fiscal 2023, representing year-over-year growth of 29.1%. Our subscriptions provide our end-customers with near real-time access to the latest antivirus, intrusion prevention, web filtering, modern malware prevention, data loss prevention, and cloud access security broker capabilities across the network, endpoints, and the cloud. When end-customers purchase our physical, virtual, or container firewall appliances, or certain cloud offerings, 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 also offer professional services, including incident response, risk management, and digital forensic services.

We continue to invest in innovation as we evolve and further extend the capabilities of our portfolio, as we believe that innovation and timely development of new features and products are essential to meeting the needs of our end-customers and improving our competitive position. For example, in November 2022, we launched PAN-OS® 11.0 Nova, which introduced 50 product updates and innovations. Among them were the new Advanced WildFire® cloud-delivered security service that brings unprecedented protection against evasive malware and the updated Advanced Threat Prevention service which now protects against zero-day injection attacks.

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 portfolio 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.

Impact of Macroeconomic Developments and Other Factors on Our Business

Our overall performance depends in part on worldwide economic and geopolitical conditions and their impact on customer behavior. Worsening economic conditions, including inflation, higher interest rates, slower growth, fluctuations in foreign exchange rates, and other changes in economic conditions, may adversely affect our results of operations and financial performance.

We continue to monitor and respond to developments relating to COVID-19, which has resulted in significant global, social, and business disruption. The extent of the continued impact of COVID-19 on our operational and financial performance will depend on developments, including the duration and spread of the virus and its variants, impact on our end-customers' spending, 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 the "Risk Factors" section in Part II, Item 1A of this Quarterly Report on Form 10-Q. The global supply chain and the semiconductor industry continue to experience challenges. We have experienced supply chain challenges, including chip and component shortages, which have, in certain cases, caused delays for us in acquiring chips, components and inventory and have resulted in increased costs as compared to historic levels. While we incurred increased costs and experienced increased lead time for certain product deliveries to our end-customers, we continue to work to minimize the effects from supply chain challenges.

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 income (loss) and margin below under "Results of Operations."

	January 31, 2023	July 31, 2022
	(in millions)	
Total deferred revenue	$ 7,554.0	$ 6,994.0
Cash, cash equivalents, and investments	$ 6,167.5	$ 4,686.4

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
	(dollars in millions)			
Total revenue	$ 1,655.1	$ 1,316.9	$ 3,218.5	$ 2,564.3
Total revenue year-over-year percentage increase	25.7 %	29.5 %	25.5 %	30.6 %
Gross margin	71.8 %	69.2 %	71.2 %	69.4 %
Operating income (loss)	$ 39.9	$ (73.9)	$ 55.1	$ (156.6)
Operating margin	2.4 %	(5.6)%	1.7 %	(6.1)%
Billings	$ 2,029.1	$ 1,607.9	$ 3,778.1	$ 2,989.5
Billings year-over-year percentage increase	26.2 %	32.4 %	26.4 %	30.1 %
Cash flow provided by operating activities			$ 1,931.3	$ 1,071.5
Free cash flow (non-GAAP)			$ 1,853.4	$ 956.2

- ***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. We 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 hardware shipment or delivery of software license, 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 January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
	(in millions)		(in millions)	
Billings:				
Total revenue	$ 1,655.1	$ 1,316.9	$ 3,218.5	$ 2,564.3
Add: change in total deferred revenue, net of acquired deferred revenue	374.0	291.0	559.6	425.2
Billings	$ 2,029.1	$ 1,607.9	$ 3,778.1	$ 2,989.5

- ***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:

	Six Months Ended January 31,	
	2023	2022
	(in millions)	
Free cash flow (non-GAAP):		
Net cash provided by operating activities	$ 1,931.3	$ 1,071.5
Less: purchases of property, equipment, and other assets	77.9	115.3
Free cash flow (non-GAAP)	$ 1,853.4	$ 956.2
Net cash used in investing activities	$ (2,484.3)	$ (504.2)
Net cash used in financing activities	$ (219.7)	$ (519.8)

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 January 31,				Six Months Ended January 31,			
	2023		2022		2023		2022	
	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue	Amount	% of Revenue
	(dollars in millions)							
Revenue:								
Product	$ 352.9	21.3 %	$ 308.0	23.4 %	$ 682.9	21.2 %	$ 603.5	23.5 %
Subscription and support	1,302.2	78.7 %	1,008.9	76.6 %	2,535.6	78.8 %	1,960.8	76.5 %
Total revenue	1,655.1	100.0 %	1,316.9	100.0 %	3,218.5	100.0 %	2,564.3	100.0 %
Cost of revenue:								
Product	100.5	6.1 %	97.8	7.4 %	220.6	6.9 %	186.7	7.3 %
Subscription and support	365.7	22.1 %	307.5	23.4 %	707.5	21.9 %	599.2	23.3 %
Total cost of revenue(1)	466.2	28.2 %	405.3	30.8 %	928.1	28.8 %	785.9	30.6 %
Total gross profit	1,188.9	71.8 %	911.6	69.2 %	2,290.4	71.2 %	1,778.4	69.4 %
Operating expenses:								
Research and development	404.1	24.4 %	359.0	27.3 %	775.9	24.1 %	698.5	27.2 %
Sales and marketing	625.5	37.8 %	528.8	40.1 %	1,240.5	38.6 %	1,034.7	40.4 %
General and administrative	119.4	7.2 %	97.7	7.4 %	218.9	6.8 %	201.8	7.9 %
Total operating expenses(1)	1,149.0	69.4 %	985.5	74.8 %	2,235.3	69.5 %	1,935.0	75.5 %
Operating income (loss)	39.9	2.4 %	(73.9)	(5.6) %	55.1	1.7 %	(156.6)	(6.1) %
Interest expense	(6.9)	(0.4) %	(6.8)	(0.5) %	(13.7)	(0.4) %	(13.7)	(0.5) %
Other income (expense), net	51.4	3.1 %	(0.1)	— %	77.4	2.4 %	(1.7)	(0.1) %
Income (loss) before income taxes	84.4	5.1 %	(80.8)	(6.1) %	118.8	3.7 %	(172.0)	(6.7) %
Provision for income taxes	0.2	— %	12.7	1.0 %	14.6	0.5 %	25.1	1.0 %
Net income (loss)	$ 84.2	5.1 %	$ (93.5)	(7.1) %	$ 104.2	3.2 %	$ (197.1)	(7.7) %

(1) Includes share-based compensation as follows:

	Three Months Ended January 31,		Six Months Ended January 31,	
	2023	2022	2023	2022
	(in millions)			
Cost of product revenue	$ 2.6	$ 2.3	$ 5.0	$ 4.6
Cost of subscription and support revenue	30.7	27.7	59.5	54.4
Research and development	129.7	123.6	247.7	249.2
Sales and marketing	88.4	79.8	175.8	153.1
General and administrative	38.5	31.7	67.9	64.1
Total share-based compensation	$ 289.9	$ 265.1	$ 555.9	$ 525.4

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 from sales of our appliances, primarily our ML-Powered Next-Generation Firewall, which is available in a number of form factors, including as physical, virtual, and containerized appliances. Product revenue also includes revenue derived from software licenses of Panorama and SD-WAN. Our appliances and software licenses include a broad set of built-in networking and security features and functionalities. We recognize product revenue at the time of hardware shipment or delivery of software license.

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Product	$ 352.9	$ 308.0	$ 44.9	14.6 %	$ 682.9	$ 603.5	$ 79.4	13.2 %

Product revenue for the three and six months ended January 31, 2023 increased compared to the same periods in 2022 driven by increased demand for our new generation of hardware products and increase in software revenue primarily due to a new go-to-market strategy for certain Network Security offerings, partially offset by a decrease in revenue from our prior generation of hardware products.

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 January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Subscription	$ 815.4	$ 618.0	$ 197.4	31.9 %	$ 1,579.4	$ 1,196.8	$ 382.6	32.0 %
Support	486.8	390.9	95.9	24.5 %	956.2	764.0	192.2	25.2 %
Total subscription and support	$ 1,302.2	$ 1,008.9	$ 293.3	29.1 %	$ 2,535.6	$ 1,960.8	$ 574.8	29.3 %

Subscription and support revenue increased for the three and six months ended January 31, 2023 compared to the same periods in 2022 due to increased demand for our subscription and support offerings from our 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.

Revenue by Geographic Theater

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Americas	$ 1,117.0	$ 915.9	$ 201.1	22.0 %	$ 2,187.7	$ 1,782.6	$ 405.1	22.7 %
EMEA	341.5	252.2	89.3	35.4 %	649.4	486.0	163.4	33.6 %
APAC	196.6	148.8	47.8	32.1 %	381.4	295.7	85.7	29.0 %
Total revenue	$ 1,655.1	$ 1,316.9	$ 338.2	25.7 %	$ 3,218.5	$ 2,564.3	$ 654.2	25.5 %

With respect to geographic theaters, the increase in revenue for the three and six months ended January 31, 2023 compared to the same periods in 2022 was driven primarily by the Americas, due to its larger sales force and a larger percentage of our customers located in the Americas. Revenue from our other geographic theaters, both Europe, the Middle East, and Africa ("EMEA") and Asia Pacific and Japan ("APAC"), increased for the three and six months ended January 31, 2023 compared to the same periods in 2022 due to continued investment in our global sales force to support our growth and increase our customer base in the regions.

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 for procuring components and manufacturing our products. 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 shared costs. Shared 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 January 31,				Six Months Ended January 31,			
	2023	2022	Change		2023	2022	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
				(dollars in millions)				
Cost of product revenue	$ 100.5	$ 97.8	$ 2.7	2.8 %	$ 220.6	$ 186.7	$ 33.9	18.2 %
Number of employees at period end	142	134	8	6.0 %	142	134	8	6.0 %

Cost of product revenue increased for the three and six months ended January 31, 2023 compared to the same periods in 2022 due to an increase in product volume and higher costs related to our product offerings, primarily driven by supply chain challenges, partially offset by hardware product mix.

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 service costs, amortization of acquired intangible assets and capitalized software development costs, and shared 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 January 31,				Six Months Ended January 31,			
	2023	2022	Change		2023	2022	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
				(dollars in millions)				
Cost of subscription and support revenue	$ 365.7	$ 307.5	$ 58.2	18.9 %	$ 707.5	$ 599.2	$ 108.3	18.1 %
Number of employees at period end	2,751	2,380	371	15.6 %	2,751	2,380	371	15.6 %

Cost of subscription and support revenue increased for the three and six months ended January 31, 2023 compared to the same periods in 2022, primarily due to increased costs to support the growth of our subscription and support offerings. Cloud hosting service costs, which support our cloud-based subscription offerings, increased $26.8 million for the three months ended January 31, 2023 compared to the same period in 2022, and increased $45.8 million for the six months ended January 31, 2023 compared to the same period in 2022. Personnel costs grew $22.6 million to $161.2 million for the three months ended January 31, 2023 compared to the same period in 2022, and grew $42.4 million to $303.8 million for the six months ended January 31, 2023 compared to the same period in 2022, primarily due to headcount growth.

Gross Margin

Gross margin has been and will continue to be affected by a variety of factors, including the introduction of new products, manufacturing costs, the average sales price of our products, cloud hosting service costs, personnel costs, the mix of products sold, and the mix of revenue between product and subscription and support offerings. Our virtual and 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 vary over time depending on the factors described above.

	Three Months Ended January 31,				Six Months Ended January 31,			
	2023		2022		2023		2022	
	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin	Amount	Gross Margin
	(dollars in millions)							
Product	$ 252.4	71.5 %	$ 210.2	68.2 %	$ 462.3	67.7 %	$ 416.8	69.1 %
Subscription and support	936.5	71.9 %	701.4	69.5 %	1,828.1	72.1 %	1,361.6	69.4 %
Total gross profit	$ 1,188.9	71.8 %	$ 911.6	69.2 %	$ 2,290.4	71.2 %	$ 1,778.4	69.4 %

Product gross margin increased for the three months ended January 31, 2023 compared to the same period in 2022, primarily due to increased software revenue and favorable hardware product mix, partially offset by higher costs related to our hardware product offerings driven by supply chain challenges. Product gross margin decreased for the six months ended January 31, 2023 compared to the same period in 2022, primarily due to higher costs related to our hardware product offerings driven by supply chain challenges, partially offset by increased software revenue and favorable hardware product mix.

Subscription and support gross margin increased for the three and six months ended January 31, 2023 compared to the same periods in 2022, primarily due to our growth in subscription and support revenue, which outpaced the subscription and support costs.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses. 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 shared costs, which consist of certain facilities, depreciation, benefits, recruiting, and information technology costs that we allocate based on headcount to each department. 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. As of January 31, 2023, we expect to recognize approximately $2.3 billion of share-based compensation expense over a weighted-average period of approximately 2.7 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 shared 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 January 31,				Six Months Ended January 31,			
	2023	2022	Change		2023	2022	Change	
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Research and development	$ 404.1	$ 359.0	$ 45.1	12.6 %	$ 775.9	$ 698.5	$ 77.4	11.1 %
Number of employees at period end	3,649	2,880	769	26.7 %	3,649	2,880	769	26.7 %

Research and development expense increased for the three and six months ended January 31, 2023 compared to the same periods in 2022, primarily due to increase in personnel costs, which grew $34.5 million to $320.7 million for the three months ended January 31, 2023 compared to the same period in 2022, and grew $57.7 million to $610.8 million for the six months ended January 31, 2023 compared to the same period in 2022, largely due to headcount growth. The remaining increase in research and development expense was further driven by increased shared 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 shared costs. We continue to strategically invest in headcount and have grown our sales presence. 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 grow our customer base, increase touch points with end-customers, and expand our global presence, although our sales and marketing expense may fluctuate as a percentage of total revenue.

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Sales and marketing	$ 625.5	$ 528.8	$ 96.7	18.3 %	$ 1,240.5	$ 1,034.7	$ 205.8	19.9 %
Number of employees at period end	5,778	4,826	952	19.7 %	5,778	4,826	952	19.7 %

Sales and marketing expense increased for the three and six months ended January 31, 2023 compared to the same periods in 2022, primarily due to increase in personnel costs, which grew $78.8 million to $482.0 million for the three months ended January 31, 2023 compared to the same period in 2022, and grew $153.9 million to $938.1 million for the six months ended January 31, 2023 compared to the same period in 2022, largely due to headcount growth and increased travel and entertainment expenses. The increase in the six months ended January 31, 2023 was further driven by increased costs associated with in-person events and go-to-market initiatives.

General and Administrative

General and administrative expense consists primarily of personnel costs and shared costs for our executive, finance, human resources, information technology, and legal organizations, and professional services costs, which consist primarily of legal, auditing, accounting, and other consulting costs. We expect general and administrative expense to increase in absolute dollars over time as we increase the size of our general and administrative organizations and incur additional costs to support our business growth, although our general and administrative expense may fluctuate as a percentage of total revenue.

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
General and administrative	$ 119.4	$ 97.7	$ 21.7	22.2 %	$ 218.9	$ 201.8	$ 17.1	8.5 %
Number of employees at period end	1,612	1307	305	23.3 %	1,612	1,307	305	23.3 %

General and administrative expense increased for the three and six months ended January 31, 2023 compared to the same periods in 2022 primarily due to increase in personnel costs, which grew $9.4 million to $78.7 million for the three months ended January 31, 2023 compared to the same period in 2022, and grew $8.6 million to $145.3 million for the six months ended January 31, 2023 compared to the same period in 2022. The increase in personnel costs for both periods was primarily due to share-based compensation related to our recent acquisition and headcount growth. The remaining increase in general and administrative expense in both periods was primarily due to increase in acquisition-related costs and slightly higher reserves as a result of increased financing receivables.

Interest Expense

Interest expense primarily consists of interest expense related to our 0.75% Convertible Senior Notes due 2023 (the "2023 Notes") and the 0.375% Convertible Senior Notes due 2025 (the "2025 Notes," and together with "2023 Notes," the "Notes").

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Interest expense	$ 6.9	$ 6.8	$ 0.1	1.5 %	$ 13.7	$ 13.7	$ —	— %

Interest expense was relatively flat for the three and six months ended January 31, 2023 compared to the same periods in 2022.

Other Income (Expense), Net

Other income (expense), net includes interest income earned on our cash, cash equivalents, and investments, and gains and losses from foreign currency remeasurement and foreign currency transactions.

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022			2023	2022		
	Amount	Amount	Amount	%	Amount	Amount	Amount	%
	(dollars in millions)							
Other income (expense), net	$ 51.4	$ (0.1)	$ 51.5	*	$ 77.4	$ (1.7)	$ 79.1	*

* Not meaningful

The increase in other income (expense), net for the three and six months ended January 31, 2023 compared to the same periods in 2022 was primarily due to higher interest income earned on our cash, cash equivalent, and investment balances as a result of higher interest rates for the three and six months ended January 31, 2023 compared to 2022.

Provision for Income Taxes

Provision for income taxes consists primarily of U.S. taxes driven by capitalization of research and development expenditures, foreign income taxes, and withholding 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. Our valuation allowance has caused, and may continue to cause, disproportionate relationships between our overall effective tax rate and other jurisdictional measures.

	Three Months Ended January 31,		Change		Six Months Ended January 31,		Change	
	2023	2022	Amount	%	2023 Amount	2022 Amount	Amount	%
	(dollars in millions)							
Provision for income taxes	$ 0.2	$ 12.7	$ (12.5)	(98.4) %	$ 14.6	$ 25.1	$ (10.5)	(41.8) %
Effective tax rate	0.2 %	(15.7) %			12.3 %	(14.6) %		

Our provision for income taxes for the three and six months ended January 31, 2023 was primarily due to U.S. federal and state income taxes, withholding taxes, and foreign income taxes. Our effective tax rate varied for the three and six months ended January 31, 2023 compared to the same periods in 2022, primarily due to an increase in current taxes driven by capitalization of research and development expenditures with no offsetting deferred benefit as a result of our valuation allowance. This increase was offset by a release of uncertain tax positions during the three months ended January 31, 2023 resulting from a tax settlement. Refer to Note 13. Income Taxes in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information.

Liquidity and Capital Resources

	January 31, 2023	July 31, 2022
	(in millions)	
Working capital[(1)]	$ (3,069.3)	$ (1,891.4)
Cash, cash equivalents, and investments:		
Cash and cash equivalents	$ 1,346.3	$ 2,118.5
Investments	4,821.2	2,567.9
Total cash, cash equivalents, and investments	$ 6,167.5	$ 4,686.4

(1) Current liabilities included net carrying amounts of convertible senior notes of $3.7 billion as of both January 31, 2023 and July 31, 2022. Refer to Note 9. Debt in Part I, Item 1 of this Quarterly Report on Form 10-Q for information on the Notes.

As of January 31, 2023, our total cash, cash equivalents, and investments of $6.2 billion were held for general corporate purposes. As of January 31, 2023, 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.

Debt

In July 2018, we issued the 2023 Notes with an aggregate principal amount of $1.7 billion. In June 2020, we issued the 2025 Notes with an aggregate principal amount of $2.0 billion. The 2023 Notes mature on July 1, 2023 and the 2025 Notes mature on June 1, 2025; however, under certain circumstances, holders may surrender their Notes of a series for conversion prior to the applicable maturity date. Upon conversion of the Notes of a series, we will pay cash equal to the aggregate principal amount of the Notes of such series 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 Notes of such series being converted. The sale price condition for the Notes was met during the fiscal quarter ended January 31, 2023, and as a result, holders may convert their Notes at any time during the fiscal quarter ending April 30, 2023. If all of the holders of the Notes converted their Notes during this period, we would be obligated to settle the $3.7 billion principal amount of the Notes in cash. We believe that our cash provided by operating activities, our existing cash, cash equivalents and investments, and existing sources of and access to financing will be sufficient to meet our anticipated cash needs should the holders choose to convert their Notes during the fiscal quarter ending April 30, 2023 or hold the 2023 Notes until maturity on July 1, 2023. As of January 31, 2023, substantially all of our Notes remained outstanding. Refer to Note 9. Debt in Part I, Item 1 of this Quarterly Report on Form 10-Q for more 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 January 31, 2023, 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.

Capital Return

In February 2019, our board of directors authorized a $1.0 billion share repurchase program. In December 2020, August 2021, and August 2022, our board of directors authorized additional $700.0 million, $676.1 million, and $915.0 million increases to this share repurchase program, respectively, bringing the total authorization under this share repurchase program to $3.3 billion. Repurchases will be funded from available working capital and may be made at management’s discretion from time to time. The expiration date of this repurchase authorization was extended to December 31, 2023, and our repurchase program may be suspended or discontinued at any time. As of January 31, 2023, $750.0 million remained available for future share repurchases under this repurchase program. Refer to Note 11. Stockholders’ Equity in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information on this repurchase program.

Leases and Other Material Cash Requirements

We have entered into various non-cancelable operating leases primarily for our facilities with original lease periods expiring through the year ending July 31, 2032, with the most significant leases relating to our corporate headquarters in Santa Clara, California. As of January 31, 2023, we have total operating lease obligations of $336.8 million recorded on our condensed consolidated balance sheet.

As of January 31, 2023, our commitments to purchase products, components, cloud and other services totaled $2.2 billion. Refer to Note 10. Commitments and Contingencies in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information on these commitments.

Cash Flows

The following table summarizes our cash flows for the six months ended January 31, 2023 and 2022:

	Six Months Ended January 31,	
	2023	2022
	(in millions)	
Net cash provided by operating activities	$ 1,931.3	$ 1,071.5
Net cash used in investing activities	(2,484.3)	(504.2)
Net cash used in financing activities	(219.7)	(519.8)
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ (772.7)	$ 47.5

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 Quarterly Report on 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 repayment obligations associated with our Notes, 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 income (losses) adjusted for certain non-cash items and changes in assets and liabilities. Our largest source of cash provided by our operations is receipts from our product revenue and subscription and support revenue.

Cash provided by operating activities during the six months ended January 31, 2023 was $1.9 billion, an increase of $859.8 million compared to the same period in 2022. The increase was primarily due to growth of our business as reflected by increases in collections during the six months ended January 31, 2023, partially offset by higher cash expenditure to support our business growth.

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 used in investing activities during the six months ended January 31, 2023 was $2.5 billion, an increase of $2.0 billion compared to the same period in 2022. The increase was primarily due to an increase in purchases of investments and increase in net cash payments for business acquisitions, offset by an increase in proceeds from sales and maturities of investments during the six months ended January 31, 2023.

Financing Activities

Our financing activities have consisted of cash used to repurchase shares of our common stock, proceeds from sales of shares through employee equity incentive plans, 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 six months ended January 31, 2023 was $219.7 million, a decrease of $300.1 million compared to the same period in 2022. The decrease was primarily due to decrease in repurchases of our common stock during the six months ended January 31, 2023.

Critical Accounting Estimates

Our condensed consolidated financial statements have been prepared in accordance with 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. We evaluate our estimates and assumptions on an ongoing basis. Actual results could differ materially from those estimates due to risks and uncertainties, including uncertainty in the current economic environment. To the extent that there are material differences between these estimates and our actual results, our future consolidated 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, 2022 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.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Except for the item below, our assessment of our exposures to market risk has not changed materially from the disclosure set forth in Part II, Item 7A of our Annual Report on Form 10-K for the fiscal year ended July 31, 2022.

Interest Rate Risk

The primary objectives of our investment activities are to preserve principal, provide liquidity, and maximize income without significantly increasing risk. Most of the securities we invest in are subject to interest rate risk. To minimize this risk, we maintain our portfolio of cash, cash equivalents, and short-term investments in a variety of securities, including commercial paper, money market funds, U.S. government and agency securities, corporate debt securities, and asset-backed securities. To assess the interest rate risk, we performed a sensitivity analysis to determine the impact a change in interest rates would have on the value of the investment portfolio. Based on investment positions as of January 31, 2023, a hypothetical 100 basis point increase in interest rates across all maturities would result in a $46.8 million decline in the fair market value of the portfolio. Such losses would only be realized if we sold the investments prior to maturity. Conversely, a hypothetical 100 basis point decrease in interest rates would lead to a $46.7 million increase in the fair market value of the portfolio.

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 January 31, 2023, 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

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 January 31, 2023 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.

Table of Content

PART II

ITEM 1. LEGAL PROCEEDINGS

The information set forth under the “Litigation” subheading in Note 10. 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.

RISK FACTOR SUMMARY

Our business is subject to numerous risks and uncertainties. These risks include, but are not limited to, the following:

- *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.*
- *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 may be adversely affected by unfavorable economic and market conditions and the uncertain geopolitical environment.*
- *The ongoing global COVID-19 pandemic could harm our business and results of operations.*
- *Our revenue growth rate in recent periods may not be indicative of our future performance.*
- *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.*
- *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.*
- *We face intense competition in our market and we may lack sufficient financial or other resources to maintain or improve our competitive position.*
- *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.*
- *Reliance on shipments at the end of the quarter could cause our revenue for the applicable period to fall below expected levels.*
- *Seasonality may cause fluctuations in our revenue.*
- *If we are unable to hire, integrate, train, retain, and motivate qualified personnel and senior management, our business could suffer.*
- *If we are not successful in executing our strategy to increase sales of our products, subscriptions and support offerings to new and existing enterprise end-customers, our operating results may suffer.*
- *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.*
- *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 or incident, misuse of our products, or risks of product liability claims could harm our reputation and adversely impact our operating results.*
- *False detection of applications, viruses, spyware, vulnerability exploits, data patterns, or URL categories could adversely affect our business.*
- *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.*
- *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 industry, our competitive position and prospects will be harmed.*

- *Our current research and development efforts may not produce successful products, subscriptions, or features that result in significant revenue, cost savings or other benefits in the near future, if at all.*
- *We may acquire other businesses, which could subject us to adverse claims or liabilities, require significant management attention, disrupt our business, adversely affect our operating results, may not result in the expected benefits of such acquisitions and may dilute stockholder value.*
- *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.*
- *Managing the supply of our products and product components is complex. Insufficient supply and inventory would result in lost sales opportunities or delayed revenue, while excess inventory would harm our gross margins.*
- *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 has disrupted or delayed our scheduled product deliveries to our end-customers, increased our costs and may result in the loss of sales and end-customers.*
- *The sales prices of our products, subscriptions and support offerings may decrease, which may reduce our gross profits and adversely impact our financial results.*
- *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 are exposed to fluctuations in foreign currency exchange rates, which could negatively 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.*
- *A portion of our revenue is generated by sales to government entities, which are subject to a number of challenges and risks.*
- *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.*
- *Claims by others that we infringe their intellectual property rights could harm our business.*
- *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.*
- *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.*
- *We license technology from third parties, and our inability to maintain those licenses could harm our business.*

Risks Related to Our Business and Our Industry

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 2022 to the end of the second quarter of fiscal 2023, our headcount increased from 12,561 to 13,932 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 products, 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 (including changes thereto and the timing thereof) of our end-customers;
- 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;
- general macroeconomic conditions, both domestically and in our foreign markets, that could impact some or all regions where we operate, including inflation, and global economic uncertainty due to the continuing effects of COVID-19;
- 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 and the escalation of military conflicts such as Russia's invasion of Ukraine;
- changes in the growth rate of the enterprise security industry;
- 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;
- our obligation to repay the aggregate principal amount of the Notes as holders exercise their conversion rights under the Notes;

- 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 disruptions in our supply chain as a result of COVID-19 and the global semiconductor chip and component shortage;
- our ability to manage cloud hosting service costs and scale the cloud-based subscription offerings;
- insolvency or credit difficulties confronting our end-customers, including due to the continuing 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 timely fulfill our end-customers' orders due to supply chain delays or events that impact our manufacturers or their suppliers, including due to the effects of COVID-19 and the global semiconductor chip and component shortage;
- 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; and
- political, economic and social instability caused by the United Kingdom's exit from the European Union ("Brexit"), Russia's invasion of Ukraine, continued hostilities in the Middle East, terrorist activities, any disruptions from COVID-19 and any disruption these events may cause to the broader global industrial economy.

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.

Our operating results may be adversely affected by unfavorable economic and market conditions and the uncertain geopolitical environment.

We operate globally, and as a result, our business and revenues are impacted by global economic and geopolitical conditions. The instability in the global credit markets, inflation, shortages and delays related to the global supply chain challenges, uncertainties related to the timing of the lifting of governmental restrictions to mitigate the spread of COVID-19, the current economic challenges in China, changes in public policies such as domestic and international regulations, taxes, increase in interest rates, fluctuations in foreign currency exchange rates, or international trade agreements, international trade disputes, government shutdowns, geopolitical turmoil and other disruptions to global and regional economies and markets continue to add uncertainty to global economic conditions. Military actions or armed conflict, including Russia's invasion of Ukraine and any related political or economic responses and counter-responses, and uncertainty about or changes in government and trade relationships, policies and treaties could also lead to worsening economic and market conditions and the geopolitical environment. In response to Russia's invasion of Ukraine, the United States, along with the European Union, has imposed restrictive sanctions on Russia, Russian entities, and Russian citizens ("Sanctions on Russia"). We are subject to these governmental sanctions and export controls, which may subject us to liability if we are not in full compliance with applicable laws. Any continued or further uncertainty, weakness or deterioration in economic and market conditions or the geopolitical environment could have a material and adverse impact on our business, financial condition and results of operations, including reductions in sales of our products and subscriptions, longer sales cycles, reductions in subscription or contract duration and value, slower adoption of new technologies, alterations in the spending patterns or priorities of current and prospective customers (including delaying purchasing decisions), increased costs for the chips and components to manufacture our products and increased price competition.

The ongoing global COVID-19 pandemic 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 pandemic has negatively impacted and will likely continue to have a negative impact on, 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. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance become available, including relating to new COVID-19 variants, 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 will likely continue to 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 ongoing 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 existing 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; and changes in the demand for our products, which has caused us to reprioritize our engineering and research and development efforts and make changes to our original offering roadmap. We have also experienced supply chain challenges, including chip and component shortages (in some cases, attributable to labor shortages), and at times we may not have sufficient inventory of certain of our products to promptly meet customer demand. As a result, we have experienced at times extended delivery times and increased costs for chips and components compared to historic levels; our demand generation activities and our ability to close transactions with 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 impact of COVID-19 subsides globally and global economic conditions improve, will continue to be more difficult for us to forecast our operating results.

More generally, the pandemic has not only significantly and adversely increased economic and demand uncertainty, but it has caused or contributed to a global economic slowdown, and continuing global economic uncertainty which could decrease technology spending and adversely affect demand for our offerings and harm our business and results of operations.

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

We have experienced revenue growth rates of 25.5% and 30.6% in the six months ended January 31, 2023 and 2022, 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 $1.6 billion as of January 31, 2023. 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. We have also entered into a substantial amount of capital commitments for operating lease obligations and other purchase commitments. 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 or satisfying our capital commitments. In addition, we may have difficulty achieving and maintaining 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 portfolio 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 and we may lack sufficient financial or other resources to maintain or improve our competitive position.

The industry 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 five categories:

- large companies that incorporate security features in their products, such as Cisco Systems, Inc. ("Cisco"), 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"), Fortinet, Inc. ("Fortinet"), and Zscaler, Inc. ("Zscaler"), that offer a mix of network and endpoint security products;
- startups and single-vertical vendors that offer independent or emerging solutions across various areas of security;
- public cloud vendors and startups that offer solutions for cloud security (private, public and hybrid cloud); and
- large and small companies, such as Crowdstrike, Inc. ("Crowdstrike"), that offer solutions for security operations and endpoint security.

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 levels of indebtedness;
- lower labor and development costs;
- newer or disruptive products or technologies;
- 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 a closed technology offering. 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 offerings only serve the needs of a portion of the enterprise security industry. Accordingly, these organizations may continue allocating their information technology budgets for legacy products and services and may not adopt our security offerings. 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 supply chain attacks) and add to the risks to our internal networks, cloud-deployed enterprise and customer-facing environments and the information they store and process. Incidences of cyberattacks and other cybersecurity breaches and incidents have increased and are likely to continue to increase. We and our third-party service providers face security threats and attacks from a variety of sources. Despite our efforts and processes to prevent breaches of our internal networks, systems and websites, our data, corporate systems and security measures, as well as those of our third-party service providers, are still vulnerable to computer viruses, break-ins, phishing attacks, ransomware attacks, or other types of attacks from outside parties, or breaches due to employee error, malfeasance, a combination of these, or otherwise. We cannot guarantee that the measures we have taken to protect our networks, systems and websites will provide adequate security. Furthermore, as a well-known provider of security solutions, we may be a more attractive target for such attacks. The conflict in Ukraine and associated activities in Ukraine and Russia may increase the risk of cyberattacks on various types of infrastructure and operations, and the United States government has warned companies to be prepared for a significant increase in Russian cyberattacks in response to the Sanctions on Russia.

A security breach or incident or an attack against our service availability suffered by us, or 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 or otherwise processed on our networks or those of our third-party service providers could be accessed, publicly disclosed, altered, lost, stolen, rendered unavailable, or otherwise used or processed without authorization, which could subject us to liability and cause us financial harm. Any actual or perceived breach of 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 significant 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, demands, 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, devices, and other measures 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 a 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 offerings. 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. 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, inclusion, 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. While we are taking steps to develop a more inclusive and diverse workforce, there is no guarantee that we will be able to do so. 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, subscriptions and support offerings to new and existing 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 and Check Point, 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, 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 78.8% of total revenue in the six months ended January 31, 2023 and 76.5% of total revenue in the six months ended January 31, 2022. 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 or incident, 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. In addition, due to the Russian invasion of Ukraine there could be a significant increase in Russian cyberattacks against our customers, resulting in an increased risk of a security breach of our end-customers' systems. 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, investigations, or other proceedings, 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 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 industry, our competitive position and prospects will be harmed.

The enterprise security industry 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. 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 portfolio 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 features and related enhancements may require us to develop new hardware architectures that involve complex, expensive, and time-consuming research and development processes. The development of our portfolio 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 features. If we experience unanticipated delays in the availability of new products, 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 features and new cloud security, AI/analytics and other offerings before knowing whether our investments will result in products, subscriptions, and features the market will accept. The success of new features depends on several factors, including appropriate new product definition, differentiation of new products, subscriptions, and features from those of our competitors, and market acceptance of these products, services and 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 features that result in significant revenue, cost savings or other benefits in the near future, if at all.

Developing our products, subscriptions, features, and related enhancements is expensive. Our investments in research and development may not result in significant design improvements, marketable products, subscriptions, or features, or may result in products, subscriptions, or 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 subject us to adverse claims or liabilities, require significant management attention, disrupt our business, adversely affect our operating results, may not result in the expected benefits of such acquisitions and may dilute stockholder value.

As part of our business strategy, we acquire and make investments in complementary companies, products, or technologies. The identification of suitable acquisition candidates is difficult, and we may not be able to complete such acquisitions on favorable terms, if at all. In addition, 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, our revenue and operating results 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.

Our completed or future acquisitions may not ultimately strengthen our competitive position or achieve our goals and business strategy. We may find that the acquired businesses, products, or technologies do not further our business strategy as we expected. Our acquisitions may be viewed negatively by our customers, financial markets, or investors. We may experience difficulty integrating the operations and personnel of the acquired business, and we may have difficulty retaining the key personnel of the acquired business. We may have difficulty integrating the acquired technologies or products with our existing product lines and we may have difficulty maintaining uniform standards, controls, procedures, and policies across diverse or expanding geographic locations.

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 Notes or exercise of the related Warrants, or otherwise will dilute all other stockholders.*" The occurrence of any of these risks could harm our business, operating results, and financial condition.

Risks Related to our Supply Chain

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 our electronics manufacturing service provider ("EMS provider") Flex, to manufacture our hardware 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 primarily 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 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 conduct due 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 and the global semiconductor shortage have in certain cases caused 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 would result in lost sales opportunities or delayed revenue, while excess inventory would 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 the impacts 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, including due to the recent global shortage of semiconductors, 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 has disrupted or delayed our scheduled product deliveries to our end-customers, increased our costs 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 have impaired, and could impair in the future, the volume of components that we are able to obtain. Lead times for components have also been adversely impacted by factors outside of our control, including COVID-19 and the recent global shortage of semiconductors. For example, we have experienced, and could continue to experience, increased difficulties in obtaining a sufficient amount of materials in the semiconductor market, which could reduce our flexibility to react to product mix changes and unforecasted orders. In addition, we have experienced increased costs because of these shortages.

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. Because we do not have, for the most part, volume purchase contracts with our 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 would result in lost sales opportunities and damage to customer relationships, which would adversely affect our business and operating results.

Risks Related to Sales of our Products, Subscriptions and Support Offerings

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

The sales prices for our products, subscriptions and support offerings may decline for a variety of reasons, including competitive pricing pressures, discounts, a change in our mix of products, subscriptions and support offerings, anticipation of the introduction of new products, subscriptions or support offerings, or promotional programs or pricing pressures as a result of 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, subscriptions and support offerings 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 could 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 products, subscriptions and support 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, subscriptions and support offerings 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, Russia's invasion of Ukraine, 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, such as the recently imposed Sanctions on Russia, 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 United Kingdom ("U.K.") and across European Union ("E.U.") member states for the foreseeable future. On January 31, 2020 the U.K. left the E.U. and the EU/UK Trade and Cooperation Agreement came into force on January 1, 2021. Our financial condition and operating results 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 foreign 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, 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 products 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 January 31, 2023, the total notional amount of our outstanding foreign currency forward contracts was $1.1 billion. For more information on our hedging transactions, refer to Note 6. 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, our customer financing activities may increase in the future. We also provide financings to certain end-customers. We monitor customer payment capability in granting such financing arrangements, seek to limit such open credit to amounts we believe the end-customers can pay and maintain reserves we believe are adequate to cover exposure for doubtful accounts to mitigate credit risks of these end-customers. However, there can be no assurance that these programs will be effective in reducing our credit risks.

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 six months ended January 31, 2023, three distributors individually represented 10% or more of our total revenue, and in the aggregate represented 50.6% of our total revenue. As of January 31, 2023, three distributors individually represented 10% or more of our gross accounts receivable, and in the aggregate represented 52.2% 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, subscriptions and support offerings 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, subscriptions and support offerings 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, subscriptions and support offerings. 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, subscriptions and support offerings, 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, subscriptions and support offerings 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 six months ended January 31, 2023, 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.

Risks Related to Intellectual Property and Technology Licensing

Claims by others that we infringe their intellectual property 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 rights. In addition, non-practicing entities also frequently bring claims of infringement of intellectual property rights. Third parties are asserting, have asserted and may in the future assert claims of infringement of intellectual property rights against us.

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, products, subscriptions and services. As we expand our footprint, both in our platforms, products, subscriptions and services and geographically, more overlaps occur and we may face more infringement claims both in the United States and abroad.

While we have been increasing 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 has involved and will likely continue to 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.

Risks Related to Privacy and Data Protection

Our actual or perceived 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. Compliance with these laws and regulations is difficult and costly. These laws and regulations relating to privacy, data protection and security 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 ("E.U. GDPR") imposes stringent data protection requirements, provides for costly penalties for noncompliance (up to the greater of €20 million or 4% of the total worldwide annual turnover), and confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies and obtain compensation for damages resulting from violations of the E.U. GDPR. The E.U. GDPR requires, among other things, that personal data only be transferred outside of the E.U. to the United States and other jurisdictions that the European Commission has not yet recognized as having "adequate" data protection laws (a "third country"), where a data transfer mechanism under the E.U. GDPR has been put in place. Historically, we have relied 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 (also referred to as standard contractual clauses or SCCs). In July 2020, the Court of Justice of the European Union in its "Schrems II" decision invalidated the E.U.-U.S. Privacy Shield for purposes of transfers to the U.S. and imposed a requirement for companies to carry out an assessment of the laws and practices governing access to personal data in the third country to ensure an essentially equivalent level of data protection to that afforded in the E.U. Though we no longer rely on the Privacy Shield programs and instead employ model contractual clauses for personal data transfers, the Schrems II decision raises questions as to implications under European and UK law and adequate data protection in the United States. Among other effects, we may experience additional costs associated with increased compliance burdens, putting in place any additional data transfer mechanisms and new contract negotiations with third parties that aid in processing data on our behalf. We may experience reluctance or refusal by current or prospective customers in the European Economic Area ("EEA"), Switzerland, and the U.K. (collectively, "Europe") to use our products, and we may find it necessary or desirable to make further changes to our handling of personal data of residents of Europe. The regulatory environment applicable to the handling of European residents' personal data, and our actions taken in response, may cause us to assume additional liabilities or incur additional costs and could result in our business, operating results and financial condition being harmed. Additionally, we and our customers may face risk of enforcement actions by data protection authorities in Europe relating to personal data transfers to us and by us from Europe. Any such enforcement actions could result in substantial costs and diversion of resources, distract management and technical personnel and negatively affect our business, operating results, and financial condition.

Following the withdrawal of the U.K. from the E.U. (i.e., Brexit), and the expiry of the Brexit transition period, which ended on December 31, 2020, the E.U. GDPR has been implemented in the U.K. (as the "U.K. GDPR"). The U.K. GDPR sits alongside the U.K. Data Protection Act 2018, which implements certain derogations in the E.U. GDPR into English law. The requirements of the U.K. GDPR, which are (at this time) largely aligned with those under the E.U. GDPR, may lead to similar compliance and operational costs with potential fines of up to £17.5 million or 4% of total worldwide annual turnover.

In the United States, companies that do business in California are subject to the California Consumer Privacy Act, as amended by the California Privacy Rights Act (collectively, the "CCPA"). The CCPA requires, among other things, covered companies to provide enhanced disclosures to California consumers, afford such consumers certain rights regarding their personal data, including the right to opt out of data sales for targeted advertising, and a private right of action to individuals affected by a data breach, if the breach was caused by a lack of reasonable security. The California Attorney General has issued initial and revised regulations that also govern the CCPA. The effects of the CCPA have been significant, requiring us to modify our data processing practices and policies and to incur substantial costs and expenses for compliance. Moreover, additional state privacy laws have been passed and will require potentially substantial efforts to obtain compliance. This includes laws in Virginia, Colorado, Utah, and Connecticut, which all go into effect throughout 2023. Many states are actively introducing privacy laws, and the U.S. federal government continues to contemplate federal privacy legislation. If passed, these laws would further impact our operations and we will continue to experience additional costs associated with this increased compliance burden.

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. 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.

New legislation affecting the scope of personal data and personal information personal data where we or our customers and partners have operations, 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. Notably, public perception of potential 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.

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.

Risks Related to Operations Outside the United States

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

As a result of various of our acquisitions, including Cider Security Ltd. ("Cider"), Cyber Secdo Ltd. ("Secdo"), PureSec Ltd. ("PureSec") and Twistlock Ltd. ("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. The effects of 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.

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, such as the Sanctions on Russia, 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.

Tax, Accounting, Compliance and Regulatory Risks

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 or benefit from 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 on 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.

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 condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported on 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.

Our reputation and/or business could be negatively impacted by ESG matters and/or our reporting of such matters.

There is an increasing focus from regulators, certain investors, and other stakeholders concerning environmental, social, and governance ("ESG") matters, both in the United States and internationally. We communicate certain ESG-related initiatives, goals, and/or commitments regarding environmental matters, diversity, responsible sourcing and social investments, and other matters in our annual ESG Report, on our website, in our filings with the SEC, and elsewhere. These initiatives, goals, or commitments could be difficult to achieve and costly to implement. We could fail to achieve, or be perceived to fail to achieve, our ESG-related initiatives, goals, or commitments. In addition, we could be criticized for the timing, scope or nature of these initiatives, goals, or commitments, or for any revisions to them. To the extent that our required and voluntary disclosures about ESG matters increase, we could be criticized for the accuracy, adequacy, or completeness of such disclosures. Our actual or perceived failure to achieve our ESG-related initiatives, goals, or commitments could negatively impact our reputation, result in ESG-focused investors not purchasing and holding our stock, or otherwise materially harm our business.

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, data security, 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.

Risks Related to Our Notes

We may not have the ability to raise the funds necessary to settle conversions of our Notes, repurchase our Notes upon a fundamental change, or repay our 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 Notes.

In July 2018 we issued our 2023 Notes (the "2023 Notes") and in June 2020 we issued our 2025 Notes (the "2025 Notes," together with the "2023 Notes," the "Notes"). We will need to make cash payments (1) if holders of our Notes require us to repurchase all or a portion of their Notes upon the occurrence of a fundamental change (e.g., a change of control of Palo Alto Networks, Inc.) before the maturity date, (2) upon conversion of our Notes, or (3) to repay our Notes in cash at their maturity, unless earlier converted or repurchased. Effective February 1, 2023 through April 30, 2023, all of the 2023 Notes and 2025 Notes are convertible. If all of the Noteholders decided to convert their Notes, we would be obligated to pay the $3.7 billion principal amount of the Notes in cash. Under the terms of the Notes, we also have the option to settle the amount of our conversion obligation in excess of the aggregate principal amount of the Notes in cash or shares of our common stock. If our cash provided by operating activities, together with our existing cash, cash equivalents and investments, and existing sources of financing, are inadequate to satisfy these obligations, we will need to obtain third-party financing, which may not be available to us on commercially reasonable terms or at all, to meet these payment obligations.

In addition, our ability to repurchase or to pay cash upon conversion of our Notes may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase our Notes at a time when the repurchase is required by the applicable indenture governing such Notes or to pay cash upon conversion of such Notes as required by the applicable indenture would constitute a default under the indenture. A default under the applicable 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 Notes or to pay cash upon conversion of our Notes.

We may still incur substantially more debt or take other actions that would diminish our ability to make payments on our 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 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 Notes that could have the effect of diminishing our ability to make payments on our 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 Notes only to the extent any such indebtedness or credit facility is not repaid or does not mature while our 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 $132.22 to $213.63 per share, as measured through February 10, 2023 and adjusted to give effect to the Stock Split. 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 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 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 our 2023 Notes and 2025 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 2023 Notes and 2025 Notes are expected generally to reduce the potential dilution to our common stock upon any conversion of our Notes and/or offset any cash payments we are required to make in excess of the principal amount of any such converted 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 Notes (and are likely to do so during any applicable observation period related to a conversion of our Notes). This activity could also cause or avoid an increase or a decrease in the market price of our common stock or our Notes, which could affect a note holder's ability to convert its Notes and, to the extent the activity occurs during any observation period related to a conversion of our Notes, it could affect the amount and value of the consideration that the note holder will receive upon conversion of our 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 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 Notes or exercise of the related Warrants, 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 Notes, the settlement of our Warrants related to each such series of the 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 will be fully consummated, or that it will enhance shareholder value, and share repurchases could affect the price of our common stock.

As of January 31, 2023, we had $750.0 million available under our share repurchase program, which will expire on December 31, 2023. Such share repurchase program may be suspended or discontinued by the Company at any time without prior notice. Although our board of directors has authorized a share repurchase program, we are not obligated to repurchase any specific dollar amount or to acquire any specific number of shares under the program. The share repurchase program 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, which may result in a decrease in the price of our common stock.

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.

Our charter documents and Delaware law, as well as certain provisions contained in the indentures governing our 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 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 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.

General Risk Factors

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.

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 portfolio, 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. Any conversion of the outstanding Notes into common stock will dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of such 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 Notes or exercise of the related Warrants, or otherwise will dilute all other stockholders*." The holders of our 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 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 2022 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.

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

All references made to share or per share amounts have been retroactively adjusted to reflect the effects of the Stock Split. Refer to Note 1. Description of Business and Summary of Significant Accounting Policies in Part I, Item 1 of this Quarterly Report on Form 10-Q for more information on the Stock Split.

Unregistered Sales of Equity Securities

During the three months ended January 31, 2023, we issued a total of 224,425 shares of our unregistered common stock in connection with our acquisitions of Cider, The Crypsis Group, and Gamma Networks, Inc. (the "Transactions").

The Transactions did not involve any underwriters, any underwriting discounts or commissions, or any public offering. The issuances of the securities pursuant to the Transactions were exempt from registration under the Securities Act of 1933, as amended (the "Act") by virtue of Section 4(a)(2) of the Act and Rule 506 of Regulation D promulgated thereunder.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table summarizes stock repurchases during the three months ended January 31, 2023 (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]
November 1, 2022 to November 30, 2022	—	$ —	—	$ 1,000.0
December 1, 2022 to December 31, 2022[2]	1.1	$ 139.22	1.1	$ 847.2
January 1, 2023 to January 31, 2023[2]	0.7	$ 137.80	0.7	$ 750.0
Total	1.8	$ 138.66	1.8	

(1) In February 2019, we announced that our board of directors authorized a $1.0 billion share repurchase program, which is funded from available working capital. In December 2020, August 2021, and August 2022, we announced additional $700.0 million, $676.1 million, and $915.0 million increases to this share repurchase program, bringing the total authorization to $3.3 billion, with $750.0 million remaining as of January 31, 2023. The expiration date of this repurchase authorization was extended to December 31, 2023, and our repurchase program may be suspended or discontinued at any time. Repurchases under our program are to be made at management's discretion 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.

(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.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date
	2021 Equity Incentive Plan, as amended and restated December 13, 2022.	S-8	333-268930	99.1	December 21, 2022
	Certification of the Chief Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.				
	Certification of the Chief Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.				
	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.				
	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.				
	The following financial information from Palo Alto Networks, Inc.'s Quarterly Report on Form 10-Q for the three months ended January 31, 2023 formatted in Inline XBRL includes: (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Operations, (iii) Condensed Consolidated Statements of Comprehensive Income (Loss), (iv) Condensed Consolidated Statements of Stockholders' Equity, (v) Condensed Consolidated Statements of Cash Flows, and (vi) Notes to the Condensed Consolidated Financial Statements.				
	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: February 21, 2023

PALO ALTO NETWORKS, INC.
By: /s/ DIPAK GOLECHHA
Dipak Golechha
Chief Financial Officer
(Duly Authorized Officer and Principal Financial Officer)

Date: February 21, 2023

PALO ALTO NETWORKS, INC.
By: /s/ JOSH PAUL
Josh Paul
Chief Accounting Officer
(Duly Authorized Officer and Principal Accounting Officer)