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 July 31, 2020
OR

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

For the transition period from to

Commission File Number: 001-38044

Okta, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**100 First Street, Suite 600**	**26-4175727**
(State or Other Jurisdiction of Incorporation or Organization)	**San Francisco**	(I.R.S. Employer Identification Number)
	California	
	94105	
	(Address of Principal executive offices)	

Registrant's telephone number, including area code: (888) 722-7871

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value $0.0001 per share	OKTA	The NASDAQ Stock Market LLC

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

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

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

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

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

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

As of July 31, 2020, the number of shares of registrant's Class A common stock outstanding was 119,960,425 and the number of shares of the registrant's Class B common stock outstanding was 8,127,878.

Okta, Inc.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including but not limited to, statements regarding our financial outlook, product development, business strategy, plans, market trends, opportunities, positioning, and the anticipated impact on our business of the COVID-19 pandemic, related public health measures and any associated economic downturn. These forward-looking statements are made as of the date they were first issued and were based on current expectations, estimates, forecasts and projections as well as the beliefs and assumptions of management. Words such as "expect," "anticipate," "should," "believe," "hope," "target," "project," "goals," "estimate," "potential," "predict," "may," "will," "might," "could," "intend," "shall" and variations of these terms or the negative of these terms and similar expressions are intended to identify these forward-looking statements, although not all forward-looking statements include these identifying words. The forward-looking statements are contained principally in "Management's Discussion and Analysis of Financial Condition and Result of Operations" and "Risk Factors."

Forward-looking statements contained in this Form 10-Q include, but are not limited to, statements about:

- our future financial performance, including our revenue, costs of revenue, gross profits, margins and operating expenses;
- the impact of the global coronavirus pandemic on our business and operations;
- trends in our key business metrics;
- the sufficiency of our cash and cash equivalents, investments and cash provided by sales of our products and services to meet our liquidity needs;
- market or other opportunities arising from business combinations; and
- the impact of recent accounting pronouncements on our financial statements.

Forward-looking statements are subject to a number of risks and uncertainties, many of which involve factors or circumstances that are beyond our control. Our actual results could differ materially from those stated or implied in forward-looking statements due to a number of factors, including but not limited to, risks detailed in "Risk Factors" in this Quarterly Report on Form 10-Q as well as other documents that may be filed by us from time to time with the Securities and Exchange Commission. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Quarterly Report on Form 10-Q may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Quarterly Report on Form 10-Q to conform these statements to actual results or to changes in our expectations.

PART I

Item. 1 Financial Statements

OKTA, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except per share data)

	July 31, 2020	January 31, 2020
	(unaudited)	
Assets		
Current assets:		
Cash and cash equivalents	$ 957,234	$ 520,048
Short-term investments	1,557,279	882,976
Accounts receivable, net of allowances of $3,243 and $1,166	110,540	130,115
Deferred commissions	37,808	33,636
Prepaid expenses and other current assets	44,074	32,950
Total current assets	2,706,935	1,599,725
Property and equipment, net	63,406	53,535
Operating lease right-of-use assets	157,781	125,204
Deferred commissions, noncurrent	86,556	77,874
Intangible assets, net	30,031	32,529
Goodwill	48,023	48,023
Other assets	22,283	18,505
Total assets	$ 3,115,015	$ 1,955,395
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 4,726	$ 3,837
Accrued expenses and other current liabilities	54,803	36,887
Accrued compensation	39,227	40,300
Convertible senior notes, net	43,578	100,703
Deferred revenue	391,246	365,236
Total current liabilities	533,580	546,963
Convertible senior notes, net, noncurrent	1,689,438	837,002
Operating lease liabilities, noncurrent	189,208	154,511
Deferred revenue, noncurrent	5,574	6,214
Other liabilities, noncurrent	12,018	5,361
Total liabilities	2,429,818	1,550,051
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Preferred stock, par value $0.0001 per share; 100,000 shares authorized; no shares issued and outstanding as of July 31, 2020 and January 31, 2020	—	—
Class A common stock, par value $0.0001 per share; 1,000,000 shares authorized; 119,960 and 113,990 shares issued and outstanding as of July 31, 2020 and January 31, 2020, respectively	12	11
Class B common stock, par value $0.0001 per share; 120,000 shares authorized; 8,128 and 8,648 shares issued and outstanding as of July 31, 2020 and January 31, 2020, respectively	1	1
Additional paid-in capital	1,498,549	1,105,564
Accumulated other comprehensive income	5,521	892
Accumulated deficit	(818,886)	(701,124)
Total stockholders' equity	685,197	405,344
Total liabilities and stockholders' equity	$ 3,115,015	$ 1,955,395

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

(unaudited)

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	**2019**	**2020**	**2019**
Revenue:				
Subscription	$ 190,689	$ 132,494	$ 364,470	$ 249,657
Professional services and other	9,757	7,986	18,835	16,046
Total revenue	200,446	140,480	383,305	265,703
Cost of revenue:				
Subscription	39,501	27,917	76,658	52,457
Professional services and other	11,646	10,863	22,975	21,418
Total cost of revenue	51,147	38,780	99,633	73,875
Gross profit	149,299	101,700	283,672	191,828
Operating expenses:				
Research and development	53,866	40,045	102,360	74,077
Sales and marketing	98,322	78,385	202,365	160,497
General and administrative	42,499	26,887	76,534	52,653
Total operating expenses	194,687	145,317	381,259	287,227
Operating loss	(45,388)	(43,617)	(97,587)	(95,399)
Interest expense	(16,931)	(4,304)	(27,695)	(8,545)
Interest income and other, net	3,960	3,464	8,859	6,364
Loss on early extinguishment of debt	(2,174)	—	(2,174)	—
Interest and other, net	(15,145)	(840)	(21,010)	(2,181)
Loss before benefit from income taxes	(60,533)	(44,457)	(118,597)	(97,580)
Benefit from income taxes	(433)	(1,477)	(835)	(2,634)
Net loss	$ (60,100)	$ (42,980)	$ (117,762)	$ (94,946)
Net loss per share, basic and diluted	$ (0.48)	$ (0.37)	$ (0.94)	$ (0.83)
Weighted-average shares used to compute net loss per share, basic and diluted	126,319	115,033	124,922	114,042

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(In thousands)

(unaudited)

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	**2019**	**2020**	**2019**
Net loss	$ (60,100)	$ (42,980)	$ (117,762)	$ (94,946)
Other comprehensive income (loss):				
Net change in unrealized gains or losses on available-for-sale securities	(1,064)	194	3,570	389
Foreign currency translation adjustments	2,843	(1,390)	1,059	(1,723)
Other comprehensive income (loss)	1,779	(1,196)	4,629	(1,334)
Comprehensive loss	$ (58,321)	$ (44,176)	$ (113,133)	$ (96,280)

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands)

(unaudited)

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	**2019**	**2020**	**2019**
Common stock and additional paid-in capital:				
Balance, beginning of period	$ 1,168,140	$ 784,078	$ 1,105,576	$ 744,907
Issuance of common stock upon exercise of stock options and other activity, net	28,046	23,965	42,754	37,481
Issuance of common stock for bonus settlement	—	—	9,818	2,809
Stock-based compensation	48,808	31,492	86,846	54,338
Equity component of convertible senior notes, net of issuance costs	306,232	—	306,232	—
Equity component of early extinguishment of convertible senior notes	61,664	—	61,664	—
Proceeds from hedges related to convertible senior notes	195,046	—	195,046	—
Payments for warrants related to convertible senior notes	(175,399)	—	(175,399)	—
Purchases of capped calls related to convertible senior notes	(133,975)	—	(133,975)	—
Balance, end of period	1,498,562	839,535	1,498,562	839,535
Accumulated deficit:				
Balance, beginning of period	(758,786)	(544,177)	(701,124)	(492,211)
Net loss	(60,100)	(42,980)	(117,762)	(94,946)
Balance, end of period	(818,886)	(587,157)	(818,886)	(587,157)
Accumulated other comprehensive income (loss):				
Balance, beginning of period	3,742	(457)	892	(319)
Other comprehensive income (loss)	1,779	(1,196)	4,629	(1,334)
Balance, end of period	5,521	(1,653)	5,521	(1,653)
Total stockholders' equity	$ 685,197	$ 250,725	$ 685,197	$ 250,725

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

(unaudited)

	Six Months Ended July 31,	
	2020	**2019**
Cash flows from operating activities:		
Net loss	$ (117,762)	$ (94,946)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Stock-based compensation	86,106	53,959
Depreciation, amortization and accretion	12,691	7,916
Amortization of debt discount and issuance costs	26,330	8,113
Amortization of deferred commissions	18,077	13,192
Deferred income taxes	(1,915)	(3,057)
Non-cash charitable contributions	2,417	652
Loss on early extinguishment of debt	2,174	—
Other, net	1,435	84
Changes in operating assets and liabilities:		
Accounts receivable	18,626	4,459
Deferred commissions	(30,332)	(21,372)
Prepaid expenses and other assets	(7,622)	1,534
Operating lease right-of-use assets	8,972	6,189
Accounts payable	810	1,368
Accrued compensation	15,045	4,717
Accrued expenses and other liabilities	(3,131)	1,304
Operating lease liabilities	(7,663)	(159)
Deferred revenue	25,369	36,175
Net cash provided by operating activities	49,627	20,128
Cash flows from investing activities:		
Capitalization of internal-use software costs	(2,326)	(1,330)
Purchases of property and equipment	(10,669)	(9,917)
Purchases of securities available for sale and other	(1,029,281)	(237,693)
Proceeds from maturities and redemption of securities available for sale	280,395	136,344
Proceeds from sales of securities available for sale and other	89,620	17,329
Purchases of intangible assets	—	(8,500)
Payments for business acquisition, net of cash acquired	—	(44,223)
Net cash used in investing activities	(672,261)	(147,990)
Cash flows from financing activities:		
Proceeds from issuance of convertible senior notes, net of issuance costs	1,135,418	—
Payments for repurchases of convertible senior notes	(181)	—
Proceeds from hedges related to convertible senior notes	195,046	—
Payments for warrants related to convertible senior notes	(175,399)	—
Purchases of capped calls related to convertible senior notes	(133,975)	—
Proceeds from stock option exercises	27,517	27,453
Proceeds from shares issued in connection with employee stock purchase plan	12,821	9,005
Other, net	—	(126)
Net cash provided by financing activities	1,061,247	36,332
Effects of changes in foreign currency exchange rates on cash, cash equivalents and restricted cash	578	(1,187)
Net increase (decrease) in cash, cash equivalents and restricted cash	439,191	(92,717)
Cash, cash equivalents and restricted cash at beginning of period	531,953	311,215
Cash, cash equivalents and restricted cash at end of period	$ 971,144	$ 218,498
Supplementary cash flow disclosure:		
Cash paid during the period for:		
Interest	$ 841	$ 431
Income taxes	393	654

Non-cash investing and financing activities:		
Issuance of common stock for repurchases of convertible senior notes	260,368	—
Vesting of early exercised common stock options	—	370
Common stock issued as charitable contribution	2,417	652
Operating lease right-of-use assets exchanged for lease liabilities	41,388	1,665
Property and equipment acquired through tenant improvement allowance	3,852	—
Issuance of common stock for bonus settlement	9,818	2,809
Reconciliation of cash, cash equivalents and restricted cash within the condensed consolidated balance sheets to the amounts shown in the condensed consolidated statements of cash flows above:		
Cash and cash equivalents	$ 957,234	$ 206,753
Restricted cash, current included in prepaid expenses and other current assets	2,217	307
Restricted cash, noncurrent included in other assets	11,693	11,438
Total cash, cash equivalents and restricted cash	$ 971,144	$ 218,498

See Notes to Condensed Consolidated Financial Statements.

1. Overview and Basis of Presentation

Description of Business

Okta, Inc. (the Company) is the leading independent identity management platform for the enterprise. The Okta Identity Cloud enables the Company's customers to securely connect people to technology, anywhere, anytime and from any device. The Company was incorporated in January 2009 as Saasure Inc., a California corporation, and was later reincorporated in April 2010 under the name Okta, Inc. as a Delaware corporation. The Company is headquartered in San Francisco, California.

Basis of Presentation and Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements, which include the accounts of the Company and its wholly owned subsidiaries, have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). All intercompany balances and transactions have been eliminated in consolidation.

The condensed consolidated balance sheet as of January 31, 2020, included herein, was derived from the audited financial statements as of that date. The unaudited condensed consolidated financial statements reflect all normal recurring adjustments necessary to present fairly the results of operations for the interim periods presented, but are not necessarily indicative of the results of operations to be anticipated for the full fiscal year ending January 31, 2021 or any future period.

The Company's fiscal year ends on January 31. References to fiscal 2021, for example, refer to the fiscal year ending January 31, 2021.

The condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes included in the Company's Form 10-K filed with the Securities and Exchange Commission (SEC) on March 6, 2020.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. The Company bases its estimates on historical experience and on other assumptions that its management believes are reasonable under the circumstances. Actual results could vary from those estimates. The Company's most significant estimates include the stand alone selling price (SSP) for each distinct performance obligation included in customer contracts with multiple performance obligations, the determination of the period of benefit for deferred commissions, the determination of the effective interest rate of the liability components of its convertible senior notes, the determination of the incremental borrowing rate used for operating lease liabilities, the valuation of deferred income tax assets, and the valuation of acquired intangible assets.

In March 2020, the World Health Organization (WHO) declared the outbreak of the novel coronavirus (COVID-19) a pandemic, which continues to spread across the globe. The Company considered the impact of COVID-19 on the assumptions and estimates used and determined that there were no material adverse impacts on the condensed consolidated financial statements for the three and six months ended July 31, 2020. As events continue to evolve and additional information becomes available, our assumptions and estimates may change materially in future periods.

2. Accounting Standards and Significant Accounting Policies

Significant Accounting Policies

The Company's significant accounting policies are discussed in "Note 2. Summary of Significant Accounting Policies" in Item 8. Financial Statements and Supplementary Data of its Form 10-K for the fiscal year ended January 31, 2020. Except for the accounting policies for short-term investments and accounts receivable and allowances that were updated below as a result of adopting the Financial Accounting Standards Board's (FASB) Accounting Standards Update (ASU) No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (ASU 2016-13) on February 1, 2020, there have been no significant changes to our significant accounting policies for the six months ended July 31, 2020.

Short-Term Investments

The Company's short-term investments comprise U.S. treasury securities and corporate debt securities. The Company determines the appropriate classification of its short-term investments at the time of purchase and reevaluates such designation at each balance sheet date. The Company has classified and accounted for its short-term investments as available-for-sale securities as the Company may sell these securities at any time for use in its current operations or for other purposes, even prior to maturity. As a result, short-term investments, including securities with stated maturities beyond twelve months, are classified within current assets in the consolidated balance sheets.

Available-for-sale securities are recorded at fair value each reporting period and are periodically evaluated for unrealized losses. For unrealized losses in securities that the Company intends to hold and will not more likely than not be required to sell before recovery, the Company further evaluates whether declines in fair value below amortized cost are due to credit or non-credit related factors.

The Company considers credit related impairments to be changes in value that are driven by a change in the creditor's ability to meet its payment obligations, and records an allowance and recognizes a corresponding loss in interest income and other, net when the impairment is incurred. Unrealized non-credit related losses and unrealized gains are reported as a separate component of accumulated other comprehensive loss in the condensed consolidated balance sheets until realized. Realized gains and losses are determined based on the specific identification method and are reported in interest income and other, net in the condensed consolidated statements of operations.

Accounts Receivable and Allowances

Accounts receivable are recorded at the invoiced amount, net of allowances. These allowances are based on the Company's assessment of the collectibility of accounts by considering the age of each outstanding invoice, the collection history of each customer, and an evaluation of current expected risk of credit loss based on current conditions and reasonable and supportable forecasts of future economic conditions over the life of the receivable. We assess collectibility by reviewing accounts receivable on an aggregated basis where similar characteristics exist and on an individual basis when we identify specific customers with known disputes or collectibility issues. Amounts deemed uncollectible are recorded as an allowance in the condensed consolidated balance sheets with an offsetting decrease in deferred revenue or a charge to general and administrative expense in the condensed consolidated statements of operations.

As of July 31, 2020, allowances reflect increased collectibility and concession concerns stemming from business and market disruption caused by COVID-19 and may fluctuate materially in future periods as the duration and severity of the impact of the COVID-19 pandemic remains uncertain.

Concentrations of Significant Customers

As of July 31, 2020 and January 31, 2020, no single customer represented greater than 10% of accounts receivable. For the six months ended July 31, 2020 and 2019, no single customer represented greater than 10% of revenue.

Recently Adopted Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, which changes the existing incurred loss impairment model for financial assets held at amortized cost. The new model uses a forward-looking expected loss method to calculate credit loss estimates. ASU 2016-13 also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in earlier recognition of credit losses. The Company adopted the requirements of ASU 2016-13 as of February 1, 2020 on a modified retrospective basis. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (ASU 2018-15), which requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance in Accounting Standards Codification 350-40 to determine which implementation costs to defer and recognize as an asset. The Company adopted the requirements of ASU 2018-15 as of February 1, 2020 on a prospective basis. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, Simplifying the Accounting for Income Taxes (ASU 2019-12), as part of its Simplification Initiative to reduce the cost and complexity in accounting for income taxes. ASU 2019-12 removes certain exceptions related to the approach for intraperiod tax allocation and clarifies the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The guidance is effective for interim and annual periods beginning after December 15, 2020, with early adoption permitted. The Company early adopted ASU 2019-12 as of February 1, 2020 on a prospective basis. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

Recent Accounting Pronouncements Not Yet Adopted

In August 2020, the FASB issued ASU No. 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity (ASU 2020-06), which simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts in an entity's own equity. Among other changes, ASU 2020-06 removes from U.S. GAAP the liability and equity separation model for convertible instruments with a cash conversion feature, and as a result, after adoption, entities will no longer separately present in equity an embedded conversion feature for such debt. Similarly, the embedded conversion feature will no longer be amortized into income as interest expense over the life of the instrument. Instead, entities will account for a convertible debt instrument wholly as debt unless (1) a convertible instrument contains features that require bifurcation as a derivative under ASC Topic 815, Derivatives and Hedging, or (2) a convertible debt instrument was issued at a substantial premium. Among other potential impacts, this change is expected to reduce reported interest expense, increase reported net income, and result in a reclassification of certain conversion feature balance sheet amounts from stockholders' equity to liabilities as it relates to the Company's convertible senior notes. Additionally, ASU 2020-06 requires the application of the if-converted method to calculate the impact of convertible instruments on diluted earnings per share (EPS), which is consistent with the Company's accounting treatment under the current standard. ASU 2020-06 is effective for fiscal years beginning after December 15, 2021, with early adoption permitted for fiscal years beginning after December 15, 2020, and can be adopted on either a fully retrospective or modified retrospective basis. The Company is currently evaluating the timing, method of adoption and overall impact of this standard on its consolidated financial statements.

3. Business Combinations

On March 18, 2019, the Company acquired all issued and outstanding capital stock of Azuqua, Inc. (Azuqua), a company which provides a no-code, cloud-based integration platform that automates workflows between applications and services. The acquisition date cash consideration transferred for Azuqua was $44.2 million, net of $1.1 million in cash acquired. The Company recorded $15.7 million for developed technology intangible assets with an estimated useful life of five years and recorded $29.9 million of goodwill which is primarily attributed to the assembled workforce as well as the integration of Azuqua's technology and the Company's technology. The Company incurred $3.0 million of acquisition-related costs, which were recorded as general and administrative expense in the quarter ended April 30, 2019.

In connection with Azuqua and prior acquisitions, the Company entered into deferred compensation arrangements totaling $10.8 million, of which $2.2 million was recognized as compensation during the six months ended July 31, 2020. The remaining deferred compensation balance of $2.6 million is being recognized over a future weighted-average period of 1.6 years subject to continued service with the Company.

These acquisitions did not have a material impact on the Company's condensed consolidated financial statements; therefore, historical and proforma disclosures have not been presented.

4. Cash Equivalents and Short-term Investments

The amortized cost, unrealized gain (loss) and estimated fair value of the Company's cash equivalents and short-term investments as of July 31, 2020 and January 31, 2020 were as follows (in thousands):

	As of July 31, 2020			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
	(unaudited)			
Cash equivalents:				
Money market funds	$ 857,921	$ —	$ —	$ 857,921
Total cash equivalents	857,921	—	—	857,921
Short-term investments:				
U.S. treasury securities	1,142,143	3,376	(39)	1,145,480
Corporate debt securities	410,369	1,484	(54)	411,799
Total short-term investments	1,552,512	4,860	(93)	1,557,279
Total	$ 2,410,433	$ 4,860	$ (93)	$ 2,415,200

	As of January 31, 2020			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
Cash equivalents:				
Money market funds	$ 416,584	$ —	$ —	$ 416,584
U.S. treasury securities	19,996	—	—	19,996
Total cash equivalents	436,580	—	—	436,580
Short-term investments:				
U.S. treasury securities	575,920	686	(8)	576,598
Corporate debt securities	305,859	519	—	306,378
Total short-term investments	881,779	1,205	(8)	882,976
Total	$ 1,318,359	$ 1,205	$ (8)	$ 1,319,556

All short-term investments were designated as available-for-sale securities as of July 31, 2020 and January 31, 2020.

The following table presents the contractual maturities of the Company's short-term investments as of July 31, 2020 (in thousands):

	As of July 31, 2020	
	Amortized Cost	Estimated Fair Value
	(unaudited)	
Due within one year	$ 1,051,614	$ 1,055,302
Due between one to five years	500,898	501,977
Total	$ 1,552,512	$ 1,557,279

As of July 31, 2020 and January 31, 2020, the Company included $15.6 million and nil, respectively, of unsettled purchases of Short-term investments in Accrued expenses and other short-term liabilities.

The Company included $7.6 million and $5.7 million of interest receivable in Prepaid expenses and other current assets as of July 31, 2020 and January 31, 2020, respectively. The Company did not recognize an allowance for credit losses against interest receivable as of July 31, 2020 and January 31, 2020 because such potential losses were not material.

The Company had 37 and 7 short-term investments in unrealized loss positions as of July 31, 2020 and January 31, 2020, respectively. There were no material gross unrealized gains or losses from available-for-sale securities and no material realized gains or losses from available-for-sale securities that were reclassified out of accumulated other comprehensive income for the three and six months ended July 31, 2020 or 2019.

For available-for-sale debt securities that have unrealized losses, the Company evaluates whether (i) the Company has the intention to sell any of these investments, (ii) it is not more likely than not that the Company will be required to sell any of these available-for-sale debt securities before recovery of the entire amortized cost basis and (iii) the decline in the fair value of the investment is due to credit or non-credit related factors. Based on this evaluation, the Company determined that for short-term investments, there were no material credit or non-credit related impairments as of July 31, 2020 and January 31, 2020.

5. Fair Value Measurements

The Company measures its financial assets at fair value each reporting period using a fair value hierarchy that prioritizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. A financial instrument's classification within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Three levels of inputs may be used to measure as follows:

Level 1—Valuations based on observable inputs that reflect quoted prices for identical assets or liabilities in active markets.

Level 2—Valuations based on other inputs that are directly or indirectly observable in the marketplace.

Level 3—Valuations based on unobservable inputs that are supported by little or no market activity.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table presents information about the Company's financial assets that were measured at fair value on a recurring basis using the above input categories (in thousands):

	As of July 31, 2020			
	Level 1	**Level 2**	**Level 3**	**Total**
	(unaudited)			
Assets:				
Cash equivalents:				
Money market funds	$ 857,921	$ —	$ —	$ 857,921
Total cash equivalents	857,921	—	—	857,921
Short-term investments:				
U.S. treasury securities	—	1,145,480	—	1,145,480
Corporate debt securities	—	411,799	—	411,799
Total short-term investments	—	1,557,279	—	1,557,279
Total cash equivalents and short-term investments	$ 857,921	$ 1,557,279	$ —	$ 2,415,200

	As of January 31, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	$ 416,584	$ —	$ —	$ 416,584
U.S. treasury securities	—	19,996	—	19,996
Total cash equivalents	416,584	19,996	—	436,580
Short-term investments:				
U.S. treasury securities	—	576,598	—	576,598
Corporate debt securities	—	306,378	—	306,378
Total short-term investments	—	882,976	—	882,976
Total cash equivalents and short-term investments	$ 416,584	$ 902,972	$ —	$ 1,319,556

The carrying amounts of certain financial instruments, including cash held in banks, accounts receivable and accounts payable approximate fair value due to their short-term maturities and are excluded from the fair value table above.

Fair Value Measurements of Other Financial Instruments

The following table presents the carrying amounts and estimated fair values of our financial instruments that are not recorded at fair value on the condensed consolidated balance sheets (in thousands):

	As of July 31, 2020	
	Net Carrying Amount (1)	Estimated Fair Value
	(unaudited)	
2023 convertible senior notes	$ 44,242	$ 219,886
2025 convertible senior notes	$ 868,327	$ 1,417,220
2026 convertible senior notes	$ 845,491	$ 1,341,487

(1) Before unamortized debt issuance costs.

The principal amounts of the 2023 convertible senior notes (2023 Notes), the 2025 convertible senior notes (2025 Notes), and the 2026 convertible senior notes (2026 Notes, and together with the 2023 Notes and 2025 Notes, the Notes) are $50.7 million, $1,060.0 million, and $1,150.0 million, respectively. The difference between the principal amounts and the respective net carrying amounts, before unamortized debt issuance costs, represents the unamortized debt discount (See Note 9 for additional details). The estimated fair values of the Notes, which are Level 2 financial instruments, were determined based on the quoted bid prices of the Notes in an over-the-counter market on the last trading day of the reporting period. As of July 31, 2020, the difference between the net carrying amount of the Notes and their estimated fair values represented the equity conversion value premium the market assigned to the Notes. Based on the closing price of our common stock of $220.98 on July 31, 2020, the if-converted values of the 2023 Notes and 2025 Notes exceeded the principal amounts of $50.7 million and $1,060.0 million, respectively, while the if-converted value of the 2026 Notes was less than the principal amount of $1,150.0 million.

6. Deferred Commissions

Sales commissions capitalized as contract costs totaled $18.4 million and $11.6 million in the three months ended July 31, 2020 and 2019, respectively, and $30.3 million and $21.4 million in the six months ended July 31, 2020 and 2019, respectively. Amortization of contract costs was $9.4 million and $6.9 million for the three months ended July 31, 2020 and 2019, respectively, and $18.1 million and $13.2 million for the six months ended July 31, 2020 and 2019, respectively. There was no impairment loss in relation to the costs capitalized.

7. Goodwill and Intangible Assets, net

Goodwill

As of July 31, 2020 and January 31, 2020, goodwill was $48.0 million. No goodwill impairments were recorded during the three and six months ended July 31, 2020 and 2019.

Intangible Assets, net

Intangible assets consisted of the following (in thousands):

	As of July 31, 2020 (unaudited)			
	Gross	Accumulated Amortization	Write-offs	Net
Capitalized internal-use software costs	$ 27,837	$ (17,138)	$ —	$ 10,699
Purchased developed technology	28,800	(9,508)	—	19,292
Software licenses	1,112	(1,072)	—	40
	$ 57,749	$ (27,718)	$ —	$ 30,031

	As of January 31, 2020			
	Gross	Accumulated Amortization	Write-offs	Net
Capitalized internal-use software costs	$ 24,890	$ (14,828)	$ (119)	$ 9,943
Purchased developed technology	28,800	(6,321)	—	22,479
Software licenses	1,112	(1,005)	—	107
	$ 54,802	$ (22,154)	$ (119)	$ 32,529

The Company capitalized $1.8 million and $1.2 million of internal-use software costs during the three months ended July 31, 2020 and 2019, respectively and $3.1 million and $1.7 million of internal use software costs in the six months ended July 31, 2020 and 2019, respectively. Stock-based compensation expense included in the total amounts capitalized were immaterial.

The remaining weighted-average useful life of all purchased developed technology was 3.5 years as of July 31, 2020.

Amortization expense of intangible assets for the three months ended July 31, 2020 and 2019 was $2.8 million and $3.0 million, respectively and $5.6 million and $5.1 million of internal-use software costs in the six months ended July 31, 2020 and 2019, respectively.

8. Deferred Revenue and Performance Obligations

Deferred Revenue

Deferred revenue, which is a contract liability, consists primarily of payments received and accounts receivable recorded in advance of revenue recognition under the Company's contracts with customers and is recognized as the revenue recognition criteria are met.

Subscription revenue recognized during the three months ended July 31, 2020 and 2019 that was included in the deferred revenue balances at the beginning of the respective periods was $165.0 million and $113.1 million, respectively, and $261.9 million and $174.9 million in the six months ended July 31, 2020 and 2019, respectively. Professional services and other revenue recognized in the three and six months ended July 31, 2020 and 2019 from deferred revenue balances at the beginning of the respective periods was not material.

Transaction Price Allocated to the Remaining Performance Obligations

Transaction price allocated to the remaining performance obligations represents all future, noncancelable contracted revenue that has not yet been recognized, inclusive of deferred revenue that has been invoiced and noncancelable amounts that will be invoiced and recognized as revenue in future periods.

As of July 31, 2020, total remaining noncancelable performance obligations under the Company's subscription contracts with customers was approximately $1,426.7 million. Of this amount, the Company expects to recognize revenue of approximately $684.5 million, or 48%, over the next 12 months, with the balance to be recognized as revenue thereafter. Revenue from remaining performance obligations for professional services and other contracts as of July 31, 2020 was not material.

9. Convertible Senior Notes, Net

2023 Convertible Senior Notes

The 2023 Notes are senior, unsecured obligations of the Company, and bear interest at a fixed rate of 0.25% per year. Interest is payable in cash semi-annually in arrears on February 15 and August 15 of each year, beginning on August 15, 2018. The 2023 Notes mature on February 15, 2023 unless earlier repurchased or converted. The Company may not redeem the 2023 Notes prior to maturity. The total net proceeds from the 2023 Notes, after deducting initial purchasers' discounts and debt issuance costs, was $335.0 million.

In September 2019, the Company used part of the net proceeds from the issuance of the 2025 Notes to repurchase a portion of the 2023 Notes, which consisted of a repurchase of $224.4 million aggregate principal amount of the 2023 Notes in privately-negotiated transactions, for aggregate consideration of $604.8 million, consisting of approximately $224.4 million in cash and approximately 3.0 million shares of Class A common stock (First Partial Repurchase of 2023 Notes). The $604.8 million in aggregate consideration was allocated between the debt and equity components in the amounts of $197.7 million and $407.1 million respectively, using an effective interest rate of 4.00% to determine the fair value of the liability component. As of the repurchase date, the carrying value of the notes subject to the First Partial Repurchase of 2023 Notes, net of unamortized debt discount and issuance costs, was $183.1 million. The First Partial Repurchase of 2023 Notes resulted in a $14.6 million loss on early debt extinguishment in fiscal 2020, of which $3.8 million consisted of unamortized debt issuance costs.

In June 2020, the Company used part of the net proceeds from the issuance of the 2026 Notes to repurchase a portion of the 2023 Notes, which consisted of a repurchase of $69.9 million aggregate principal amount of the 2023 Notes in privately-negotiated transactions, for aggregate consideration of $260.5 million, consisting of approximately $0.2 million in cash and approximately 1.4 million shares of Class A common stock (Second Partial Repurchase of 2023 Notes, and together with the First Partial Repurchase of 2023 Notes, the 2023 Notes Partial Repurchases). The $260.5 million in aggregate consideration was allocated between the debt and equity components in the amounts of $61.8 million and $198.7 million respectively, using an effective interest rate of 4.90% to determine the fair value of the liability component. As of the repurchase date, the carrying value of the notes subject to the Second Partial Repurchase of 2023 Notes, net of unamortized debt discount and issuance costs, was $59.6 million. The Second Partial Repurchase of 2023 Notes resulted in a $2.2 million loss on early debt extinguishment in fiscal 2021, of which $1.0 million consisted of unamortized debt issuance costs.

The interest rates used in the 2023 Notes Partial Repurchases were based on the income and market based approaches used to determine the effective interest rate of the 2025 Notes and 2026 Notes, adjusted for the remaining tenor of the 2023 Notes. As of July 31, 2020, $50.7 million of principal remained outstanding on the 2023 Notes.

The terms of the 2023 Notes are governed by an Indenture by and between the Company and Wilmington Trust, National Association, as Trustee (the 2023 Indenture). Upon conversion, the 2023 Notes may be settled in cash, shares of Class A common stock or a combination of cash and shares of Class A common stock, at the Company's election.

The 2023 Notes are convertible at an initial conversion rate of 20.6795 shares of Class A common stock per $1,000 principal amount of the 2023 Notes, which is equal to an initial conversion price of approximately $48.36 per share of Class A common stock, subject to adjustment under certain circumstances in accordance with the terms of the 2023 Indenture. Prior to the close of business on the business day immediately preceding October 15, 2022, holders of the 2023 Notes may convert all or a portion of their 2023 Notes only in multiples of $1,000 principal amount, under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ending on April 30, 2018 (and only during such fiscal quarter), if the last reported sale price of Class A common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the 2023 Notes on each applicable trading day;

- during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of the 2023 Notes for each trading day of that five consecutive trading day period was less than 98% of the product of the last reported sale price of Class A common stock and the conversion rate on such trading day; or

- upon the occurrence of specified corporate events, as described in the 2023 Indenture.

On or after October 15, 2022 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their 2023 Notes regardless of the foregoing circumstances. For at least twenty trading days during the period of thirty consecutive trading days ended July 31, 2020, the last reported sale price of the Company's common stock was equal to or exceeded 130% of the conversion price of the 2023 Notes on each applicable trading day. As a result, the 2023 Notes are convertible at the option of the holders during the fiscal quarter ending October 31, 2020 and were classified as current liabilities on the condensed consolidated balance sheet as of July 31, 2020. In addition, as of the date of this filing, the Company has received an immaterial amount of conversion requests and holders of the 2023 Notes have converted an immaterial amount of such notes (not in connection with the 2023 Notes Partial Repurchases).

Holders of the 2023 Notes who convert their 2023 Notes in connection with certain corporate events that constitute a make-whole fundamental change (as defined in the 2023 Indenture) are, under certain circumstances, entitled to an increase in the conversion rate. Additionally, in the event of a corporate event that constitutes a fundamental change (as defined in the 2023 Indenture), holders of the 2023 Notes may require the Company to repurchase all or a portion of their 2023 Notes at a price equal to 100% of the principal amount of the 2023 Notes being repurchased, plus any accrued and unpaid interest.

In accounting for the issuance of the 2023 Notes, the Company separated the 2023 Notes into liability and equity components, using an effective interest rate of 5.68% to determine the fair value of the liability component. This interest rate was based on both an income and a market based approach. For the income approach, the Company used a convertible bond pricing model, which included several assumptions including volatility and the risk-free rate. For the market approach, the Company observed the price of the Note Hedges (see below) it purchased for its 2023 Notes and also performed an evaluation of issuances of convertible debt securities by other companies with similar credit risk ratings at the time of issuance. The following table sets forth total interest expense recognized related to the 2023 Notes (in thousands):

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(unaudited)			
Contractual interest expense	$ 52	$ 215	$ 127	$ 431
Amortization of debt issuance costs	90	329	217	648
Amortization of debt discount	958	3,759	2,328	7,465
Total	$ 1,100	$ 4,303	$ 2,672	$ 8,544

Total initial issuance costs of $10.0 million related to the 2023 Notes were allocated between liability and equity in the same proportion as the allocation of the total proceeds to the liability and equity components. Issuance costs attributable to the liability component are being amortized to interest expense over the respective term of the 2023 Notes using the effective interest rate method. The issuance costs attributable to the equity component were netted against the respective equity component in Additional paid-in capital. The Company initially recorded liability issuance costs of $7.7 million and equity issuance costs of $2.3 million.

The 2023 Notes, net consisted of the following (in thousands):

		As of July 31, 2020
		(unaudited)
Liability component:		
Principal	$	50,665
Less: unamortized debt issuance costs and debt discount		(7,087)
Net carrying amount	$	43,578

		As of July 31, 2020
		(unaudited)
Equity component:		
2023 Notes	$	11,743
Less: issuance costs		(341)
Carrying amount of the equity component[1]	$	11,402

[1] Included in the condensed consolidated balance sheets within Additional paid-in capital.

Note Hedges

In connection with the pricing of the 2023 Notes, the Company entered into convertible note hedges with respect to its Class A common stock (Note Hedges). The Note Hedges are purchased call options that give the Company the option to purchase, subject to anti-dilution adjustments substantially identical to those in the 2023 Notes, approximately 7.1 million shares of its Class A common stock for approximately $48.36 per share (subject to adjustment), corresponding to the approximate initial conversion price of the 2023 Notes, exercisable upon conversion of the 2023 Notes. The Note Hedges will expire in 2023, if not exercised earlier. The Note Hedges are intended to offset potential dilution to the Company's Class A common stock and/or offset the potential cash payments that the Company could be required to make in excess of the principal amount upon any conversion of the 2023 Notes under certain circumstances. The Note Hedges are separate transactions and are not part of the terms of the 2023 Notes.

The Company paid an aggregate amount of $80.0 million for the Note Hedges. The amount paid for the Note Hedges was recorded as a reduction to Additional paid-in capital in the condensed consolidated balance sheets.

In September 2019 and in June 2020, and in connection with the First Partial Repurchase of 2023 Notes and Second Partial Repurchase of 2023 Notes, the Company terminated Note Hedges corresponding to approximately 4.6 million and 1.4 million shares for cash proceeds of $405.9 million and $195.0 million, respectively. The proceeds were recorded as an increase to Additional paid-in capital in the condensed consolidated balance sheets. As of July 31, 2020, Note Hedges giving the Company the option to purchase approximately 1.0 million shares (subject to adjustment) remained outstanding.

Warrants

In connection with the issuance of the 2023 Notes, the Company also entered into separate warrant transactions pursuant to which it sold net-share-settled (or, at the Company's election subject to certain conditions, cash-settled) warrants (Warrants) to acquire, subject to anti-dilution adjustments, up to approximately 7.1 million shares over 80 scheduled trading days beginning in May 2023 of the Company's Class A common stock at an initial exercise price of approximately $68.06 per share (subject to adjustment). If the Warrants are not exercised on their exercise dates, they will expire. If the market value per share of the Company's Class A common stock exceeds the applicable exercise price of the Warrants, the Warrants could have a dilutive effect on the Company's Class A common stock unless, subject to the terms of the Warrants, the Company elects to cash settle the Warrants. The Warrants are separate transactions and are not part of the terms of the 2023 Notes or the Note Hedges.

The Company received aggregate proceeds of $52.4 million from the sale of the Warrants in connection with the 2023 Notes. The proceeds from the sale of the Warrants were recorded as an increase to Additional paid-in capital in the condensed consolidated balance sheets.

In September 2019 and in June 2020, and in connection with the First Partial Repurchase of 2023 Notes and Second Partial Repurchase of 2023 Notes, the Company terminated Warrants corresponding to approximately 4.6 million and 1.4 million shares for total cash payments of $358.6 million and $175.4 million, respectively. The termination payments were recorded as a decrease to Additional paid-in capital in the condensed consolidated balance sheets.

As of July 31, 2020, Warrants to acquire up to approximately 1.0 million shares (subject to adjustment) remained outstanding.

2025 Convertible Senior Notes

The 2025 Notes are senior, unsecured obligations of the Company, and bear interest at a fixed rate of 0.125% per year. Interest is payable in cash semi-annually in arrears on March 1 and September 1 of each year, beginning on March 1, 2020. The 2025 Notes mature on September 1, 2025 unless earlier redeemed, repurchased or converted. The total net proceeds from the 2025 Notes, after deducting initial purchasers' discounts and debt issuance costs, were $1,040.7 million.

The terms of the 2025 Notes are governed by an Indenture by and between the Company and Wilmington Trust, National Association, as Trustee (the 2025 Indenture). Upon conversion, the 2025 Notes may be settled in cash, shares of Class A common stock or a combination of cash and shares of Class A common stock, at the Company's election.

The 2025 Notes are convertible at an initial conversion rate of 5.2991 shares of class A common stock per $1,000 principal amount of the 2025 Notes, which is equal to an initial conversion price of approximately $188.71 per share of Class A common stock, subject to adjustment under certain circumstances in accordance with the terms of the 2025 Indenture. Prior to the close of business on the business day immediately preceding June 1, 2025, holders of the 2025 Notes may convert all or a portion of their 2025 Notes only in multiples of $1,000 principal amount, under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ending on January 31, 2020 (and only during such fiscal quarter), if the last reported sale price of Class A common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the 2025 Notes on each applicable trading day;

- during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of the 2025 Notes for each trading day of that five consecutive trading day period was less than 98% of the product of the last reported sale price of Class A common stock and the conversion rate on such trading day;

- if the Company calls the notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

- upon the occurrence of specified corporate events, as described in the 2025 Indenture.

On or after June 1, 2025 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their 2025 Notes regardless of the foregoing circumstances. During the three months ended July 31, 2020, the conditions allowing holders of the 2025 Notes to convert were not met.

The Company may redeem for cash all or any portion of the 2025 Notes, at its option, on or after September 6, 2022, if the last reported sale price of the Company's Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on and including the trading day preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the 2025 Notes to be redeemed, plus any accrued and unpaid interest to, but excluding, the redemption date. During the three months ended July 31, 2020, the Company did not redeem any of the 2025 Notes.

Holders of the 2025 Notes who convert their 2025 Notes in connection with certain corporate events that constitute a make-whole fundamental change (as defined in the 2025 Indenture) or in connection with the Company's issuance of a redemption notice are, under certain circumstances, entitled to an increase in the conversion rate. Additionally, in the event of a corporate event that constitutes a fundamental change (as defined in the 2025 Indenture), holders of the 2025 Notes may require the Company to repurchase all or a portion of their 2025 Notes at a price equal to 100% of the principal amount of the 2025 Notes being repurchased, plus any accrued and unpaid interest.

In accounting for the issuance of the 2025 Notes, the Company separated the 2025 Notes into liability and equity components using an effective interest rate of 4.10% to determine the fair value of the liability component. This interest rate was based on both an income and a market based approach. For the income approach, the Company used a convertible bond pricing model, which included several assumptions including volatility and the risk-free rate. For the market approach, the Company performed an evaluation of issuances of convertible debt securities by other companies with similar credit risk ratings at the time of issuance. The following table sets forth total interest expense recognized related to the 2025 Notes (in thousands):

	Three Months Ended	Six Months Ended
	July 31, 2020	
	(unaudited)	
Contractual interest expense	$ 331	$ 662
Amortization of debt issuance costs	518	1,024
Amortization of debt discount	8,440	16,794
Total	$ 9,289	$ 18,480

Total issuance costs of $19.3 million related to the 2025 Notes were allocated between liability and equity in the same proportion as the allocation of the total proceeds to the liability and equity components. Issuance costs attributable to the liability component are being amortized to interest expense over the respective term of the 2025 Notes using the effective interest rate method. The issuance costs attributable to the equity component were netted against the respective equity component in Additional paid-in capital. The Company recorded liability issuance costs of $15.3 million and equity issuance costs of $4.0 million.

The 2025 Notes, net consisted of the following (in thousands):

	As of July 31, 2020
	(unaudited)
Liability component:	
Principal	$ 1,060,000
Less: unamortized debt issuance costs and debt discount	(205,182)
Net carrying amount	$ 854,818

	At Issuance
Equity component:	
2025 Notes	$ 221,387
Less: issuance costs	(4,040)
Carrying amount of the equity component[1]	$ 217,347

[1] Included in the condensed consolidated balance sheets within Additional paid-in capital.

2025 Capped Calls

In connection with the pricing of the 2025 Notes, the Company entered into capped call transactions with respect to its Class A common stock (2025 Capped Calls). The 2025 Capped Calls are purchased call options that give the Company the option to purchase, subject to anti-dilution adjustments substantially identical to those in the 2025 Notes, approximately 5.6 million shares of its Class A common stock for approximately $188.71 per share (subject to adjustment), corresponding to the approximate initial conversion price of the 2025 Notes, exercisable upon conversion of the 2025 Notes. The 2025 Capped Calls have initial cap prices of $255.88 per share (subject to adjustment) and will expire in 2025, if not exercised earlier. The 2025 Capped Calls are intended to offset potential dilution to the Company's Class A common stock and/or offset the potential cash payments that the Company could be required to make in excess of the principal amount upon any conversion of the 2025 Notes under certain circumstances. The Capped Calls are separate transactions and are not part of the terms of the 2025 Notes.

The Company paid an aggregate amount of $74.1 million for the 2025 Capped Calls. The amount paid for the 2025 Capped Calls was recorded as a reduction to Additional paid-in capital in the condensed consolidated balance sheets.

2026 Convertible Senior Notes

The 2026 Notes are senior, unsecured obligations of the Company, and bear interest at a fixed rate of 0.375% per year. Interest is payable in cash semi-annually in arrears on June 15 and December 15 of each year, beginning on December 15, 2020. The 2026 Notes mature on June 15, 2026 unless earlier redeemed, repurchased or converted. The total net proceeds from the 2026 Notes, after deducting initial purchasers' discounts and debt issuance costs, were $1,134.9 million.

The terms of the 2026 Notes are governed by an Indenture by and between the Company and Wilmington Trust, National Association, as Trustee (the 2026 Indenture, and together with the 2023 Indenture and 2025 Indenture, the Indentures). Upon conversion, the 2026 Notes may be settled in cash, shares of Class A common stock or a combination of cash and shares of Class A common stock, at the Company's election.

The 2026 Notes are convertible at an initial conversion rate of 4.1912 shares of Class A common stock per $1,000 principal amount of the 2026 Notes, which is equal to an initial conversion price of approximately $238.60 per share of Class A common stock, subject to adjustment under certain circumstances in accordance with the terms of the Indenture. Prior to the close of business on the business day immediately preceding March 15, 2026, holders of the 2026 Notes may convert all or a portion of their 2026 Notes only in multiples of $1,000 principal amount, under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ending on October 31, 2020 (and only during such fiscal quarter), if the last reported sale price of our Class A common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the 2026 Notes on each applicable trading day;

- during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of the 2026 Notes for each trading day of that five consecutive trading day period was less than 98% of the product of the last reported sale price of our Class A common stock and the conversion rate on such trading day;

- if the Company calls the notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

- upon the occurrence of specified corporate events, as described in the Indenture.

On or after March 15, 2026 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their 2026 Notes regardless of the foregoing circumstances. During the three months ended July 31, 2020, the conditions allowing holders of the 2026 Notes to convert were not met.

The Company may redeem for cash all or any portion of the 2026 Notes, at its option, on or after June 20, 2023, if the last reported sale price of the Company's Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including the trading day immediately preceding the date on which we provide notice of redemption, during any 30 consecutive trading day period ending on and including the trading day preceding the date on which we provide notice of redemption price equal to 100% of the principal amount of the notes to be redeemed, plus any accrued and unpaid interest to, but excluding, the redemption date. During the three months ended July 31, 2020, the Company did not redeem any of the 2026 Notes.

Holders of the 2026 Notes who convert their 2026 Notes in connection with certain corporate events that constitute a make-whole fundamental change (as defined in the Indenture) or in connection with the Company's issuance of a redemption notice are, under certain circumstances, entitled to an increase in the conversion rate. Additionally, in the event of a corporate event that constitutes a fundamental change (as defined in the Indenture), holders of the 2026 Notes may require the Company to repurchase all or a portion of their 2026 Notes at a price equal to 100% of the principal amount of the 2026 Notes being repurchased, plus any accrued and unpaid interest.

In accounting for the issuance of the 2026 Notes, the Company separated the 2026 Notes into liability and equity components using an effective interest rate of 5.75% to determine the fair value of the liability component. This interest rate was based on both an income and a market based approach. For the income approach, the Company used a convertible bond pricing model, which included several assumptions including volatility, the risk-free rate and observable trading activity for the Company's existing Notes. For the market approach, the Company performed an evaluation of issuances of debt securities without conversion features by other companies with similar credit risk ratings at the time of issuance. The following table sets forth total interest expense recognized related to the 2026 Notes (in thousands):

	Three and Six Months Ended July 31, 2020
	(unaudited)
Contractual interest expense	$ 575
Amortization of debt issuance costs	165
Amortization of debt discount	5,802
Total	$ 6,542

Total issuance costs of $15.1 million related to the 2026 Notes were allocated between liability and equity in the same proportion as the allocation of the total proceeds to the liability and equity components. Issuance costs attributable to the liability component are being amortized to interest expense over the respective term of the 2026 Notes using the effective interest rate method. The issuance costs attributable to the equity component were netted against the respective equity component in Additional paid-in capital. The Company recorded liability issuance costs of $11.0 million and equity issuance costs of $4.1 million.

The 2026 Notes, net consisted of the following (in thousands):

	As of July 31, 2020
	(unaudited)
Liability component:	
Principal	$ 1,150,000
Less: unamortized debt issuance costs and debt discount	(315,380)
Net carrying amount	$ 834,620

	At Issuance
	(unaudited)
Equity component:	
2026 Notes	$ 310,311
Less: issuance costs	(4,079)
Carrying amount of the equity component[1]	$ 306,232

[1] Included in the condensed consolidated balance sheets within Additional paid-in capital.

2026 Capped Calls

In connection with the pricing of the 2026 Notes, the Company entered into capped call transactions with respect to its Class A common stock (2026 Capped Calls). The 2026 Capped Calls are purchased call options that give the Company the option to purchase, subject to anti-dilution adjustments substantially identical to those in the 2026 Notes, approximately 4.8 million shares of its Class A common stock for approximately $238.60 per share (subject to adjustment), corresponding to the approximate initial conversion price of the 2026 Notes, exercisable upon conversion of the 2026 Notes. The 2026 Capped Calls have initial cap prices of $360.14 per share (subject to adjustment) and will expire in 2026, if not exercised earlier. The 2026 Capped Calls are intended to offset potential dilution to the Company's Class A common stock and/or offset the potential cash payments that the Company could be required to make in excess of the principal amount upon any conversion of the 2026 Notes under certain circumstances. The 2026 Capped Calls are separate transactions and are not part of the terms of the 2026 Notes.

The Company paid an aggregate amount of $134.0 million for the 2026 Capped Calls. The amount paid for the 2026 Capped Calls was recorded as a reduction to Additional paid-in capital in the consolidated balance sheets.

10. Leases

The Company has entered into various non-cancelable office space operating leases with original lease periods expiring between 2020 and 2028. These leases do not contain material variable rent payments, residual value guarantees, covenants or other restrictions.

Operating lease costs were as follows (in thousands):

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(unaudited)			
Operating lease cost[(1)]	$ 8,334	$ 5,620	$ 15,704	$ 11,083

[(1)] Amounts are presented exclusive of sublease income and include short-term leases, which are immaterial.

The weighted-average remaining term of the Company's operating leases was 7.4 and 7.9 years and the weighted-average discount rate used to measure the present value of the operating lease liabilities was 5.6% and 5.7% as of July 31, 2020 and January 31, 2020, respectively.

Maturities of the Company's operating lease liabilities, which do not include short-term leases, as of July 31, 2020 were as follows (in thousands):

	Operating Leases
	(unaudited)
2021	$ 12,971
2022	35,972
2023	36,596
2024	37,461
2025	35,415
Thereafter	99,891
Total lease payments	258,306
Less imputed interest	(49,616)
Total operating lease liabilities	$ 208,690

Cash payments included in the measurement of the Company's operating lease liabilities were $7.8 million and $2.4 million for the three months ended July 31, 2020 and 2019, respectively, and $15.0 million and $4.8 million in the six months ended July 31, 2020 and 2019, respectively.

As of July 31, 2020, the Company has $4.7 million of undiscounted future payments under an operating lease that has not yet commenced, which is excluded from the table above. This operating lease will commence in fiscal 2021 and has a lease term of 4.0 years.

11. Commitments and Contingencies

Letters of Credit

In conjunction with the execution of certain office space operating leases, letters of credit in the aggregate amount of $11.2 million and $11.9 million were issued and outstanding as of July 31, 2020 and January 31, 2020, respectively. No draws have been made under such letters of credit.

Legal Matters

From time to time in the normal course of business, the Company may be subject to various legal matters such as threatened or pending claims or proceedings. There were no such material matters as of July 31, 2020.

12. Employee Incentive Plans

The Company's equity incentive plans provide for granting stock options, restricted stock units (RSUs) and restricted stock awards to employees, consultants, officers and directors. In addition, the Company offers an Employee Stock Purchase Plan (ESPP) to eligible employees.

Stock-based compensation expense was recorded in the following cost and expense categories in the Company's condensed consolidated statements of operations (in thousands):

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(unaudited)			
Cost of revenue				
Subscription	$ 5,164	$ 3,111	$ 9,139	$ 5,533
Professional services and other	2,000	1,873	3,811	3,392
Research and development	14,953	9,082	26,888	15,428
Sales and marketing	13,165	9,236	24,325	16,022
General and administrative	13,112	7,972	21,959	13,584
Total	$ 48,394	$ 31,274	$ 86,122	$ 53,959

Stock-based compensation expense recorded to research and development in the condensed consolidated statements of operations excludes amounts that were capitalized related to internal-use software for the three and six months ended July 31, 2020 and 2019. See Note 7 for further details.

Equity Incentive Plans

The Company has two equity incentive plans: the 2009 Stock Plan (2009 Plan) and the 2017 Equity Incentive Plan (2017 Plan). All shares that remain available for future grants are under the 2017 Plan. As of July 31, 2020, options to purchase 1,210,791 shares of Class A common stock and 8,707,490 shares of Class B common stock remained outstanding.

Shares of common stock reserved for future issuance were as follows:

	As of July 31, 2020
	(unaudited)
Stock options and unvested RSUs outstanding	15,180,332
Available for future stock option and RSU grants	20,798,312
Available for ESPP	4,752,501
	40,731,145

Stock Options

A summary of the Company's stock option activity and related information was as follows:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of January 31, 2020	12,359,302	$ 11.82	6.2	$ 1,436,487
Granted	399,936	144.58		
Exercised	(2,705,093)	10.17		
Canceled	(135,864)	19.68		
Outstanding as of July 31, 2020 (unaudited)	9,918,281	$ 17.52	6.0	$ 2,017,986
As of July 31, 2020				
Vested and exercisable (unaudited)	7,606,991	$ 9.43	5.6	$ 1,609,285

As of July 31, 2020, there was a total of $41.6 million of unrecognized stock-based compensation expense, which is expected to be recognized over a weighted-average period of 1.5 years.

Restricted Stock Units

A summary of the Company's RSU activities and related information was as follows:

	Number of RSUs	Weighted-Average Grant Date Fair Value Per Share
Outstanding as of January 31, 2020	4,893,241	$ 77.99
Granted	1,779,276	159.92
Vested	(1,156,701)	78.72
Forfeited	(253,765)	79.89
Outstanding as of July 31, 2020 (unaudited)	5,262,051	$ 105.44

As of July 31, 2020, there was $519.4 million of unrecognized stock-based compensation expense related to unvested RSUs, which is expected to be recognized over a weighted-average period of 2.7 years based on vesting under the award service conditions.

Employee Stock Purchase Plan

The ESPP provides for 12-month offering periods beginning June 21 and December 21 of each year, and each offering period consists of up to two six-month purchase periods.

The Company estimated the fair value of ESPP purchase rights using a Black-Scholes option pricing model with the following assumptions:

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	**2019**	**2020**	**2019**
	(unaudited)			
Expected volatility	50% - 54%	43% - 59%	50% - 54%	43% - 59%
Expected term (in years)	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
Risk-free interest rate	0.17% - 0.18%	1.95% - 2.05%	0.17% - 0.18%	1.95% - 2.05%
Expected dividend yield	—	—	—	—

During the three and six months ended July 31, 2020, the Company's employees purchased 127,734 shares of its Class A common stock under the ESPP. The shares were purchased at a weighted-average purchase price of $100.38 per share, with total proceeds of $12.8 million.

As of July 31, 2020, there was $4.1 million of unrecognized stock-based compensation expense related to the ESPP that is expected to be recognized over an average vesting period of 0.6 years.

13. Income Taxes

For the three and six months ended July 31, 2020, the Company recorded a tax benefit of $0.4 million and $0.8 million on pretax losses of $60.5 million and $118.6 million, respectively. The effective tax rate for the three and six months ended July 31, 2020 was 0.7%. The effective tax rate differs from the statutory rate primarily as a result of not recognizing deferred tax assets for U.S. losses due to a full valuation allowance against U.S. deferred tax assets and excess tax benefits from stock-based compensation in the United Kingdom. The tax benefit was partially offset by income tax expense in profitable foreign jurisdictions and U.S. state taxes.

For the three and six months ended July 31, 2019, the Company recorded a tax benefit of $1.5 million and $2.6 million on pretax losses of $44.5 million and $97.6 million, respectively. The effective tax rate for the three and six months ended July 31, 2019 was 3.3% and 2.7%, respectively. The effective tax rate differs from the statutory rate primarily as a result of not recognizing deferred tax assets for U.S. losses due to a full valuation allowance against U.S. deferred tax assets, release of the valuation allowance in the United States in connection with the Azuqua acquisition and excess tax benefits from stock-based compensation in the United Kingdom. The tax benefits were partially offset by income tax expense in profitable foreign jurisdictions and U.S. state taxes.

On March 27, 2020, the President signed into law the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act). The CARES Act provides numerous tax provisions and other stimulus measures, including temporary changes regarding the prior and future use of net operating losses, temporary changes to the prior and future limitations on interest deductions, temporary suspension of certain payment requirements for the employer portion of Social Security taxes, technical corrections from prior tax legislation for tax depreciation of certain qualified improvement property, and the creation of certain refundable employee retention credits. The Company does not expect there to be a material tax impact on its condensed consolidated financial statements at this time, and will continue to assess the implications of the CARES Act and its continuing developments and interpretations.

14. Net Loss Per Share

The following table presents the calculation of basic and diluted net loss per share (in thousands, except per share data):

	Three Months Ended July 31,				Six Months Ended July 31,			
	2020		2019		2020		2019	
	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
	(unaudited)							
Numerator:								
Net loss	$ (56,090)	$ (4,010)	$ (39,250)	$ (3,730)	$ (109,774)	$ (7,988)	$ (86,516)	$ (8,430)
Denominator:								
Weighted-average shares outstanding - basic and diluted	117,891	8,428	105,049	9,984	116,449	8,473	103,917	10,125
Net loss per share, basic and diluted	$ (0.48)	$ (0.48)	$ (0.37)	$ (0.37)	$ (0.94)	$ (0.94)	$ (0.83)	$ (0.83)

As the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share as the inclusion of all potential common shares outstanding would have been anti-dilutive. Potentially dilutive securities that were not included in the diluted per share calculations because they would be anti-dilutive were as follows (in thousands):

	As of July 31,	
	2020	2019
	(unaudited)	
Issued and outstanding stock options	9,918	14,587
Unvested RSUs issued and outstanding	5,262	5,401
Unvested restricted stock awards issued and outstanding	—	177
Unvested shares subject to repurchase	1	14
Shares committed under the ESPP	141	215
Shares related to the 2023 Notes	1,048	7,134
Shares subject to warrants related to the issuance of the 2023 Notes	1,048	7,134
Shares related to the 2025 Notes	5,617	—
Shares related to the 2026 Notes	4,820	—
	27,855	34,662

The Company uses the if-converted method for calculating any potential dilutive effect of the conversion options embedded in the Notes on diluted net income per share, if applicable. The conversion options of the 2023, 2025 and 2026 Notes are dilutive in periods of net income on a weighted average basis using an assumed conversion date equal to the later of the beginning of the reporting period and the date of issuance of the respective Notes. The exercise rights of the Warrants will have a dilutive impact on net income per share of common stock under the treasury-stock method when the average market price per share of the Company's Class A common stock for a given period exceeds the conversion price of $68.06 per share. During the three and six months ended July 31, 2020, the average price per share of the Company's Class A common stock exceeded the exercise price of the Warrants; however, since the Company is in a net loss position, there was no dilutive effect during any period presented.

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 and our Annual Report on Form 10-K. As discussed in the section titled “Forward-Looking Statements,” the following discussion and analysis contains forward-looking statements that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Factors that could cause or contribute to these differences include, but are not limited to, those identified below and those discussed in the section titled “Risk Factors” under Part II, Item 1A in this Quarterly Report on Form 10-Q and Part I, Item 1A in our Annual Report on Form 10-K. Our fiscal year ends January 31.

Overview

Okta is the leading independent identity management platform for the enterprise. The Okta Identity Cloud is our category-defining platform that enables our customers to securely connect the right people to the right technologies at the right time. Every day, millions of people use Okta to securely access a wide range of cloud, mobile and web applications, on premise servers, application program interfaces, or APIs, IT infrastructure providers and services from a multitude of devices. Employees and contractors sign into the Okta Identity Cloud to seamlessly and securely access the applications they need to do their most important work. Organizations use our platform to collaborate with their partners, and to provide their customers with more modern experiences online and via mobile devices. Developers leverage our platform to securely and efficiently embed identity into their software, allowing them to focus on their core mission. Our approach to identity allows our customers to simplify and efficiently scale their security infrastructures across internal IT systems and external customer facing applications.

We have rapidly expanded the breadth and depth of the Okta Integration Network, which provides customers with integrations to cloud, mobile and web applications and IT infrastructure providers that spans the functionality of our products. As of July 31, 2020, we had over 6,500 integrations with these cloud, mobile and web applications and IT infrastructure providers.

We employ a SaaS business model. We focus on acquiring and retaining our customers and increasing their spending with us through expanding the number of users who access our platform and upselling additional products. We sell our products directly through our field and inside sales teams, as well as indirectly through our network of channel partners, including resellers, system integrators and other distribution partners. Our subscription fees include the use of our service and our technical support and management of our platform. We base subscription fees primarily on the products used and the number of users on our platform. The Okta Identity Cloud is used by our customers to manage and secure their employees, contractors and partners, which we refer to as workforce identity. Our platform is also used to manage and secure the identities of an organization's own customers via the powerful APIs we have developed, which we refer to as customer identity. We typically invoice customers in advance in annual installments for subscriptions to our platform.

Impact of Coronavirus (COVID-19) Pandemic

In December 2019, a novel coronavirus (COVID-19) was reported in China, in January 2020, the World Health Organization (WHO) declared it a Public Health Emergency of International Concern and in March 2020, the WHO declared it a pandemic. This contagious disease outbreak has continued to spread across the globe and is impacting worldwide economic activity and financial markets. The extent of the impact of COVID-19 on our future operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, related public health measures, and their impact on the macroeconomy, our current and prospective customers, employees and vendors. None of these impacts can be predicted with certainty.

Our revenue is relatively predictable as a result of our subscription-based business model, which constituted over 95% of total revenue for the three and six months ended July 31, 2020. Future growth may be impacted by longer sales cycles, which we have experienced, which in turn, could result in delays in deals closing, creating near-term headwinds for cash flow, remaining performance obligations (RPO) and billings growth as well as potential future impacts on revenue growth and other key metrics on a trailing basis. Our allowance for doubtful accounts and sales reserves have increased primarily due to an increase in overall uncertainty in our forecasts of future economic conditions and concession requests. While we see risks associated with more highly impacted companies and industries, we are also seeing new interest from other organizations, driven by rapidly changing work and business environments. As workforces have transitioned to working from home in a distributed model, Zero Trust has become an increasingly important and identity an increasingly critical service.

We believe we will be able to continue to deliver our cloud-based platform and support to our customers, without compromising our employees' safety. Since March 2020, we have put in place mandatory work-from-home procedures for all of our global office locations, and our employees have the necessary tools and technology to remain connected and productive. In addition, we shifted our annual user conference, Oktane20 Live, to a virtual-only experience, resulting in cost savings. We have further benefited from cost savings, driven by reduced growth in employee compensation costs due to slower hiring, reductions in employee-related expenses as our sales and marketing activities shift to an online only sales format and a shift to work-from-home procedures.

See Risk Factors for further discussion of the potential impact of COVID-19 and its related public health measures on our business.

Components of Results of Operations

Revenue

Subscription Revenue. Subscription revenue primarily consists of fees for access to and usage of our cloud-based platform and related support. Subscription revenue is driven primarily by the number of customers, the number of users per customer and the products used. We typically invoice customers in advance in annual installments for subscriptions to our platform.

Professional Services and Other. Professional services revenue includes fees from assisting customers in implementing and optimizing the use of our products. These services include application configuration, system integration and training services.

We generally invoice customers as the work is performed for time-and-materials arrangements, and up front for fixed fee arrangements. All professional services revenue is recognized as the services are performed.

Overhead Allocation and Employee Compensation Costs

We allocate shared costs, such as facilities (including rent, utilities and depreciation on assets shared by all departments), information technology costs, and recruiting costs to all departments based on headcount. As such, allocated shared costs are reflected in each cost of revenue and operating expense category. Employee compensation costs include salaries, bonuses, benefits and stock-based compensation for each operating expense category and sales commissions for sales and marketing.

Cost of Revenue and Gross Margin

Cost of Subscription. Cost of subscription primarily consists of expenses related to hosting our services and providing support. These expenses include employee-related costs associated with our cloud-based infrastructure and our customer support organization, third-party hosting fees, software and maintenance costs, outside services associated with the delivery of our subscription services, travel-related costs, amortization expense associated with capitalized internal-use software and acquired technology, and allocated overhead.

We intend to continue to invest additional resources in our platform infrastructure and our platform support organizations. As we continue to invest in technology innovation, we anticipate capitalized internal-use software costs and related amortization may increase. We expect our investment in technology to expand the capability of our platform enabling us to improve our gross margin over time. The level and timing of investment in these areas could affect our cost of subscription revenue in the future.

Cost of Professional Services and Other. Cost of professional services consists primarily of employee-related costs for our professional services delivery team, travel-related costs, and costs of outside services associated with supplementing our professional services delivery team. The cost of providing professional services has historically been higher than the associated revenue we generate.

Gross Margin. Gross margin is gross profit expressed as a percentage of total revenue. Our gross margin may fluctuate from period to period as our revenue fluctuates, and as a result of the timing and amount of investments to expand our hosting capacity, our continued efforts to build platform support and professional services teams, increased stock-based compensation expenses, as well as the amortization of costs associated with capitalized internal-use software and acquired intangible assets.

Operating Expenses

Research and Development. Research and development expenses consist primarily of employee compensation costs and allocated overhead. We believe that continued investment in our platform is important for our growth. We expect our research and development expenses will increase in absolute dollars as our business grows.

Sales and Marketing. Sales and marketing expenses consist primarily of employee compensation costs, costs of general marketing activities and promotional activities, travel-related expenses and allocated overhead. Commissions earned by our sales force that are considered incremental and recoverable costs of obtaining a contract with a customer are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be generally five years. We expect our sales and marketing expenses will increase in absolute dollars and continue to be our largest operating expense category for the foreseeable future as we expand our sales and marketing efforts. However, we expect our sales and marketing expenses to decrease as a percentage of our total revenue as our total revenue grows.

General and Administrative. General and administrative expenses consist primarily of employee compensation costs for finance, accounting, legal and human resources personnel. In addition, general and administrative expenses include non-personnel costs, such as legal, accounting and other professional fees, charitable contributions, and all other supporting corporate expenses not allocated to other departments. We expect our general and administrative expenses will increase in absolute dollars as our business grows.

Interest and Other, Net

Interest and other, net consists of interest expense, which primarily includes amortization of debt discount and issuance costs and contractual interest expense for our Notes, interest income from our investment holdings and loss on early extinguishment of debt.

Provision for (Benefit from) Income Taxes

Our provision for (benefit from) income taxes consists of federal and state income taxes in the United States and income taxes in certain foreign jurisdictions, and is determined for interim periods using an estimate of our annual effective tax rate, adjusted for discrete items occurring in the quarter. The primary difference between our effective tax rate and the federal statutory rate relates to the net operating losses in jurisdictions with a valuation allowance against related deferred tax assets.

Results of Operations

The following table sets forth our results of operations for the periods presented in dollars:

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(in thousands)			
Revenue:				
Subscription	$ 190,689	$ 132,494	$ 364,470	$ 249,657
Professional services and other	9,757	7,986	18,835	16,046
Total revenue	200,446	140,480	383,305	265,703
Cost of revenue:				
Subscription(1)	39,501	27,917	76,658	52,457
Professional services and other(1)	11,646	10,863	22,975	21,418
Total cost of revenue	51,147	38,780	99,633	73,875
Gross profit	149,299	101,700	283,672	191,828
Operating expenses:				
Research and development(1)	53,866	40,045	102,360	74,077
Sales and marketing(1)	98,322	78,385	202,365	160,497
General and administrative(1)	42,499	26,887	76,534	52,653
Total operating expenses	194,687	145,317	381,259	287,227
Operating loss	(45,388)	(43,617)	(97,587)	(95,399)
Interest expense	(16,931)	(4,304)	(27,695)	(8,545)
Interest income and other, net	3,960	3,464	8,859	6,364
Loss on early extinguishment of debt	(2,174)	—	(2,174)	—
Interest and other, net	(15,145)	(840)	(21,010)	(2,181)
Loss before benefit from income taxes	(60,533)	(44,457)	(118,597)	(97,580)
Benefit from income taxes	(433)	(1,477)	(835)	(2,634)
Net loss	$ (60,100)	$ (42,980)	$ (117,762)	$ (94,946)

(1) Includes stock-based compensation expense as follows:

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(in thousands)			
Cost of subscription revenue	$ 5,164	$ 3,111	$ 9,139	$ 5,533
Cost of professional services and other revenue	2,000	1,873	3,811	3,392
Research and development	14,953	9,082	26,888	15,428
Sales and marketing	13,165	9,236	24,325	16,022
General and administrative	13,112	7,972	21,959	13,584
Total stock-based compensation expense	$ 48,394	$ 31,274	$ 86,122	$ 53,959

The following table sets forth our results of operations for the periods presented as a percentage of total revenue:

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Six Months Ended July 31, 2020	Six Months Ended July 31, 2019
Revenue				
Subscription	95 %	94 %	95 %	94 %
Professional services and other	5	6	5	6
Total revenue	100	100	100	100
Cost of revenue				
Subscription	20	20	20	20
Professional services and other	6	8	6	8
Total cost of revenue	26	28	26	28
Gross profit	74	72	74	72
Operating expenses				
Research and development	27	28	27	28
Sales and marketing	49	56	52	60
General and administrative	21	19	20	20
Total operating expenses	97	103	99	108
Operating loss	(23)	(31)	(25)	(36)
Interest expense	(8)	(3)	(7)	(3)
Interest income and other, net	2	2	2	2
Loss on early extinguishment of debt	(1)	—	(1)	—
Interest and other, net	(7)	(1)	(6)	(1)
Loss before benefit from income taxes	(30)	(32)	(31)	(37)
Benefit from income taxes	—	(1)	—	(1)
Net loss	(30)%	(31)%	(31)%	(36)%

Comparison of the Three Months Ended July 31, 2020 and 2019

Revenue

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	$ Change	% Change
	(dollars in thousands)			
Revenue:				
Subscription	$ 190,689	$ 132,494	$ 58,195	44%
Professional services and other	9,757	7,986	1,771	22
Total revenue	$ 200,446	$ 140,480	$ 59,966	43%
Percentage of revenue:				
Subscription	95%	94%		
Professional services and other	5	6		
Total	100%	100%		

Subscription revenue increased by $58.2 million, or 44%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019. The increase was primarily due to the addition of new customers as well as an increase in users and sales of additional products to existing customers.

Professional services and other revenue increased by $1.8 million, or 22%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019. The increase in professional services revenue was primarily related to an increase in implementation and other services associated with an increase in the number of new customers purchasing our subscription services.

Cost of Revenue, Gross Profit and Gross Margin

	Three Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
Cost of revenue:				
Subscription	$ 39,501	$ 27,917	$ 11,584	41%
Professional services and other	11,646	10,863	783	7
Total cost of revenue	$ 51,147	$ 38,780	$ 12,367	32%
Gross profit	$ 149,299	$ 101,700	$ 47,599	47%
Gross margin:				
Subscription	79 %	79 %		
Professional services and other	(19)	(36)		
Total gross margin	74	72		

Cost of subscription revenue increased by $11.6 million, or 41%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019, primarily due to an increase of $8.1 million in employee compensation costs related to higher headcount to support the growth in our subscription services, an increase of $1.5 million in software license costs and an increase of $1.1 million in third-party hosting costs as we increased capacity to support our growth.

Our gross margin for subscription revenue remained consistent at 79% for the three months ended July 31, 2020 compared to the three months ended July 31, 2019. While our gross margins for subscription revenue may fluctuate in the near-term as we invest in our growth, we expect our subscription revenue gross margin to increase over time as we achieve additional economies of scale.

Cost of professional services and other revenue increased by $0.8 million, or 7%, for the three months ended July 31, 2020, compared to the three months ended July 31, 2019, due to a number of immaterial changes.

Our gross margin for professional services and other revenue improved to (19)% during the three months ended July 31, 2020 from (36)% during the three months ended July 31, 2019, primarily due to increases in professional services and other revenue.

Operating Expenses

Research and Development Expenses

	Three Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
Research and development	$ 53,866	$ 40,045	$ 13,821	35%
Percentage of revenue	27%	28%		

Research and development expenses increased $13.8 million, or 35%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019. The increase was primarily due to an increase of $12.6 million in employee compensation costs due to higher headcount.

Sales and Marketing Expenses

	Three Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
Sales and marketing	$ 98,322	$ 78,385	$ 19,937	25%
Percentage of revenue	49%	56%		

Sales and marketing expenses increased $19.9 million, or 25%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019. The increase was primarily due to an increase of $17.1 million in employee compensation costs related to headcount growth, offset by a decrease of $5.0 million in employee-related expenses primarily due to reduced travel-related expenditures resulting from our temporary shift to an online only sales format. Marketing and event costs increased by $3.5 million primarily due to increases in demand generation programs, advertising and brand awareness efforts aimed at acquiring new customers.

General and Administrative Expenses

	Three Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
General and administrative	$ 42,499	$ 26,887	$ 15,612	58%
Percentage of revenue	21%	19%		

General and administrative expenses increased $15.6 million, or 58%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019. The increase was primarily due to an increase of $11.3 million in employee compensation costs primarily related to higher headcount to support our continued growth.

Interest and Other, Net

	Three Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
Interest expense	$ (16,931)	$ (4,304)	(12,627)	293%
Interest income and other, net	3,960	3,464	496	14
Loss on early extinguishment of debt	(2,174)	—	(2,174)	—
Interest and other, net	$ (15,145)	$ (840)	$ (14,305)	1,703%

Interest expense increased $12.6 million, or 293%, for the three months ended July 31, 2020 compared to the three months ended July 31, 2019, due to an increase of $9.3 million and $6.5 million for the 2025 Notes and 2026 Notes, respectively, offset by a decrease of $3.2 million for the 2023 Notes, due to the 2023 Notes Partial Repurchases.

Loss on early extinguishment of debt increased $2.2 million for the three months ended July 31, 2020 compared to the three months ended July 31, 2019 due to the Second Partial Repurchase of 2023 Notes.

Comparison of the Six Months Ended July 31, 2020 and 2019

Revenue

	Six Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
Revenue:				
Subscription	$ 364,470	$ 249,657	$ 114,813	46%
Professional services and other	18,835	16,046	2,789	17
Total revenue	$ 383,305	$ 265,703	$ 117,602	44%
Percentage of revenue:				
Subscription	95%	94%		
Professional services and other	5	6		
Total	100%	100%		

Subscription revenue increased by $114.8 million, or 46%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019. The increase was primarily due to the addition of new customers as well as an increase in users and sales of additional products to existing customers.

Professional services and other revenue increased by $2.8 million, or 17%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019. The increase in professional services revenue was primarily related to an increase in implementation and other services associated with an increase in the number of new customers purchasing our subscription services.

Cost of Revenue, Gross Profit and Gross Margin

	Six Months Ended July 31,			
	2020	2019	$ Change	% Change
	(dollars in thousands)			
Cost of revenue:				
Subscription	$ 76,658	$ 52,457	$ 24,201	46%
Professional services and other	22,975	21,418	1,557	7
Total cost of revenue	$ 99,633	$ 73,875	$ 25,758	35%
Gross profit	$ 283,672	$ 191,828	$ 91,844	48%
Gross margin:				
Subscription	79 %	79 %		
Professional services and other	(22)	(33)		
Total gross margin	74	72		

Cost of subscription revenue increased by $24.2 million, or 46%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019, primarily due to an increase of $15.8 million in employee compensation costs related to higher headcount to support the growth in our subscription services, an increase of $2.7 million in software license costs and an increase of $2.5 million in third-party hosting costs as we increased capacity to support our growth.

Our gross margin for subscription revenue remained consistent at 79% during the six months ended July 31, 2020 compared to the six months ended July 31, 2019. While our gross margins for subscription revenue may fluctuate in the near-term as we invest in our growth, we expect our subscription revenue gross margin to increase over time as we achieve additional economies of scale.

Cost of professional services and other revenue increased by $1.6 million, or 7%, for the six months ended July 31, 2020, compared to the six months ended July 31, 2019, primarily due to an increase of $1.2 million in employee compensation costs related to higher headcount.

Our gross margin for professional services and other revenue improved to (22)% during the six months ended July 31, 2020 from (33)% during the six months ended July 31, 2019 primarily due to increases in professional services and other revenue.

Operating Expenses

Research and Development Expenses

	Six Months Ended July 31,			
	2020	2019	$ Change	% Change
		(dollars in thousands)		
Research and development	$ 102,360	$ 74,077	$ 28,283	38%
Percentage of revenue	27%	28%		

Research and development expenses increased $28.3 million, or 38%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019. The increase was primarily due to an increase of $26.8 million in employee compensation costs due to higher headcount.

Sales and Marketing Expenses

	Six Months Ended July 31,			
	2020	2019	$ Change	% Change
		(dollars in thousands)		
Sales and marketing	$ 202,365	$ 160,497	$ 41,868	26%
Percentage of revenue	52%	60%		

Sales and marketing expenses increased $41.9 million, or 26%, for the six months ended July 31, 2020, compared to the six months ended July 31, 2019. The increase was primarily due to an increase of $37.2 million in employee compensation costs related to headcount growth and an increase of $2.4 million in allocated overhead costs, offset by a decrease of $8.4 million in employee-related expenses primarily due to reduced travel-related expenditures resulting from our temporary shift to an online only sales format. Marketing and event costs increased by $11.0 million primarily due to increases in demand generation programs, advertising and brand awareness efforts aimed at acquiring new customers, offset by a decrease of $4.9 million due to a change to a virtual format for our annual customer conference in the first quarter of fiscal 2021 compared to an in-person format in the first quarter of fiscal 2020.

General and Administrative Expenses

	Six Months Ended July 31,			
	2020	2019	$ Change	% Change
		(dollars in thousands)		
General and administrative	$ 76,534	$ 52,653	$ 23,881	45%
Percentage of revenue	20%	20%		

General and administrative expenses increased $23.9 million, or 45%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019. The increase was primarily due to an increase of $20.0 million in employee compensation costs related to higher headcount to support our continued growth.

Interest and Other, Net

	Six Months Ended July 31,			
	2020	2019	$ Change	% Change
		(dollars in thousands)		
Interest expense	$ (27,695)	$ (8,545)	$ (19,150)	224%
Interest income and other, net	8,859	6,364	2,495	39
Loss on early extinguishment of debt	(2,174)	—	(2,174)	—
Interest and other, net	$ (21,010)	$ (2,181)	$ (18,829)	863%

Interest expense increased $19.2 million, or 224%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019, primarily related to an increase of $18.5 million and $6.5 million for the 2025 Notes and

2026 Notes, respectively, offset by a decrease of $5.9 million for the 2023 Notes, due to the 2023 Notes Partial Repurchases.

Interest income and other, net increased $2.5 million, or 39%, for the six months ended July 31, 2020 compared to the six months ended July 31, 2019, primarily due to interest income earned on higher cash and cash equivalents and short-term investment balances. We expect interest income earned on our investments to decrease in relation to our overall portfolio balance in fiscal 2021 due to decreases in interest rates.

Loss on early extinguishment of debt increased $2.2 million for the six months ended July 31, 2020 compared to the six months ended July 31, 2019 due to the Second Partial Repurchase of 2023 Notes.

Key Business Metrics

We review a number of operating and financial metrics, including the following key metrics, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans, and make strategic decisions.

	As of July 31,	
	2020	2019
	(dollars in thousands)	
Customers with annual contract value (ACV) above $100,000	1,685	1,222
Dollar-based net retention rate for the trailing 12 months ended	121%	118%
Current remaining performance obligations	$ 684,515	$ 461,147
Remaining performance obligations	$ 1,426,722	$ 913,573

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(in thousands)			
Calculated billings	$ 198,083	$ 155,764	$ 407,588	$ 302,959

Total Customers and Number of Customers with Annual Contract Value Above $100,000

As of July 31, 2020, we had over 8,950 customers on our platform. We believe that our ability to increase the number of customers on our platform is an indicator of our market penetration, the growth of our business, and our potential future business opportunities. Increasing awareness of our platform and capabilities, coupled with the mainstream adoption of cloud technology, has expanded the diversity of our customer base to include organizations of all sizes across all industries. Over time, larger customers have constituted a greater share of our revenue, which has contributed to an increase in average revenue per customer. The number of customers who have greater than $100,000 in annual contract value, or ACV, with us was 1,685 and 1,222 as of July 31, 2020 and 2019, respectively. We expect this trend to continue as larger enterprises recognize the value of our platform and replace their legacy identity access management, or IAM infrastructure. We define a customer as a separate and distinct buying entity, such as a company, an educational or government institution, or a distinct business unit of a large company that has an active contract with us or one of our partners to access our platform.

Dollar-Based Net Retention Rate

Our ability to generate revenue is dependent upon our ability to maintain our relationships with our customers and to increase their utilization of our platform. We believe we can achieve these goals by focusing on delivering value and functionality that enables us to both retain our existing customers and expand the number of users and products used within an existing customer. We assess our performance in this area by measuring our Dollar-Based Net Retention Rate. Our Dollar-Based Net Retention Rate measures our ability to increase revenue across our existing customer base through expansion of users and products associated with a customer as offset by churn and contraction in the number of users and/or products associated with a customer.

Our Dollar-Based Net Retention Rate is based upon our ACV which is calculated based on the terms of that customer's contract and represents the total contracted annual subscription amount as of that period end. We calculate our Dollar-Based Net Retention Rate as of a period end by starting with the ACV from all customers as of twelve months prior to such period end, or Prior Period ACV. We then calculate the ACV from these same customers as of the current period end, or Current Period ACV. Current Period ACV includes any upsells and is net of contraction or churn over the trailing twelve months but excludes revenue from new customers in the current period. We then divide the total Current Period ACV by the total Prior Period ACV to arrive at our Dollar-Based Net Retention Rate.

Our strong Dollar-Based Net Retention Rate is primarily attributable to an expansion of users and upselling additional products within our existing customers. Larger enterprises often implement a limited initial deployment of our platform before increasing their deployment on a broader scale.

Remaining Performance Obligations

Remaining performance obligations, or RPO, represent all future, noncancelable, contracted revenue under our subscription contracts with customers that has not yet been recognized, inclusive of deferred revenue that has been invoiced and noncancelable amounts that will be invoiced and recognized as revenue in future periods. Current RPO represents the portion of RPO expected to be recognized during the next 12 months. RPO fluctuates due to a number of factors, including the timing, duration and dollar amount of customer contracts.

Calculated Billings

Calculated Billings represent our total revenue plus the change in deferred revenue and less the change in unbilled receivables in the period. Calculated Billings in any particular period reflects sales to new customers plus subscription renewals and upsells to existing customers, and represent amounts invoiced for subscription, support and professional services. We typically invoice customers in advance in annual installments for subscriptions to our platform.

Calculated Billings increased 27% in the three months ended July 31, 2020 over the three months ended July 31, 2019, and increased 35% in the six months ended July 31, 2020, over the six months ended July 31, 2019. As our Calculated Billings continue to grow in absolute terms, we expect our Calculated Billings growth rate to trend down over time.

Non-GAAP Financial Measures

In addition to our results determined in accordance with U.S. generally accepted accounting principles, or GAAP, we believe the following non-GAAP measures are useful in evaluating our operating performance. We use the below referenced non-GAAP financial information, collectively, to evaluate our ongoing operations and for internal planning and forecasting purposes. We believe that non-GAAP financial information, when taken collectively with GAAP financial measures, may be helpful to investors because it provides consistency and comparability with past financial performance, and assists in comparisons with other companies, some of which use similar non-GAAP financial information to supplement their GAAP results. The non-GAAP financial information is presented for supplemental informational purposes only, and should not be considered a substitute for financial information presented in accordance with GAAP, and may be different from similarly-titled non-GAAP measures used by other companies. The principal limitation of these non-GAAP financial measures is that they exclude significant expenses that are required by GAAP to be recorded in our financial statements. In addition, they are subject to inherent limitations as they reflect the exercise of judgment by our management about which expenses are excluded or included in determining these non-GAAP financial measures. A reconciliation is provided below for each non-GAAP financial measure to the most directly comparable financial measure stated in accordance with GAAP. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures, and not to rely on any single financial measure to evaluate our business.

Non-GAAP Gross Profit and Non-GAAP Gross Margin

We define non-GAAP gross profit and non-GAAP gross margin as GAAP gross profit and GAAP gross margin, adjusted for stock-based compensation expense and amortization of acquired intangibles.

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(dollars in thousands)			
Gross profit	$ 149,299	$ 101,700	$ 283,672	$ 191,828
Add:				
Stock-based compensation expense included in cost of revenue	7,164	4,984	12,950	8,925
Amortization of acquired intangibles	1,594	1,785	3,187	2,548
Non-GAAP gross profit	$ 158,057	$ 108,469	$ 299,809	$ 203,301
Gross margin	74%	72%	74%	72%
Non-GAAP gross margin	79%	77%	78%	77%

Non-GAAP Operating Income (Loss) and Non-GAAP Operating Margin

We define non-GAAP operating income (loss) and non-GAAP operating margin as GAAP operating loss and GAAP operating margin, adjusted for stock-based compensation expense, non-cash charitable contributions, amortization of acquired intangibles and acquisition-related expenses.

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019	2020	2019
	(dollars in thousands)			
Operating loss	$ (45,388)	$ (43,617)	$ (97,587)	$ (95,399)
Add:				
Stock-based compensation expense	48,394	31,274	86,122	53,959
Non-cash charitable contributions	1,881	652	2,417	652
Amortization of acquired intangibles	1,594	1,785	3,187	2,548
Acquisition-related expenses[1]	—	—	—	3,449
Non-GAAP operating income (loss)	$ 6,481	$ (9,906)	$ (5,861)	$ (34,791)
Operating margin	(23)%	(31)%	(25)%	(36)%
Non-GAAP operating margin	3 %	(7)%	(2)%	(13)%

[1] We define acquisition-related expenses as costs associated with acquisitions, including transaction costs and other non-recurring incremental costs incurred.

Non-GAAP Net Income (Loss) and Non-GAAP Net Margin

We define non-GAAP net income (loss) and non-GAAP net margin as GAAP net loss and GAAP net margin, adjusted for stock-based compensation expense, non-cash charitable contributions, amortization of acquired intangibles, acquisition-related expenses, amortization of debt discount and debt issuance costs and loss on early extinguishment of debt.

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019[1]	2020	2019[1]
	(dollars in thousands)			
Net loss	$ (60,100)	$ (42,980)	$ (117,762)	$ (94,946)
Add:				
Stock-based compensation expense	48,394	31,274	86,122	53,959
Non-cash charitable contributions	1,881	652	2,417	652
Amortization of acquired intangibles	1,594	1,785	3,187	2,548
Acquisition-related expenses[2]	—	—	—	3,449
Amortization of debt discount and debt issuance costs[3]	15,973	4,088	26,330	8,113
Loss on early extinguishment of debt[4]	2,174	—	2,174	—
Non-GAAP net income (loss)	$ 9,916	$ (5,181)	$ 2,468	$ (26,225)
Net margin	(30)%	(31)%	(31)%	(36)%
Non-GAAP net margin	5 %	(4)%	1 %	(10)%

[1] Prior periods have been adjusted to conform to the current presentation. See footnotes (3) and (4) for additional details.

[2] We define acquisition-related expenses as costs associated with acquisitions, including transaction costs and other non-recurring incremental costs incurred.

[3] Amortization of debt issuance costs is an adjustment to non-GAAP net income (loss), effective the three and six months ended July 31, 2020. Debt issuance costs included are $0.8 million and $1.4 million for the three and six months ended July 31, 2020, respectively, and $0.3 million and $0.6 million for the three and six months ended July 31, 2019, respectively.

[4] Loss on early extinguishment of debt is calculated inclusive of write-offs of debt issuance costs, effective the three and six months ended July 31, 2020. The amounts of these write-offs are $1.0 million for the three and six months ended July 31, 2020, respectively, and nil for the three and six months ended July 31, 2019, respectively.

Non-GAAP Net Income (Loss) per share, basic and diluted

We define non-GAAP net income (loss) per share, basic, as non-GAAP net income (loss) divided by GAAP weighted-average shares used to compute net loss per share, basic and diluted.

We define non-GAAP net income (loss) per share, diluted, as non-GAAP net income (loss) divided by GAAP weighted-average shares used to compute net loss per share, basic and diluted adjusted for the potentially dilutive effect of (i) employee equity incentive plans, excluding the impact of unrecognized stock-based compensation expense, and (ii) convertible senior notes outstanding and related warrants. In addition, non-GAAP net income (loss) per share, diluted, includes the anti-dilutive impact of the Company's note hedge and capped call agreements on convertible senior notes outstanding, which fully reduced the potential dilutive effect of the convertible senior notes outstanding. Accordingly, the Company did not record any adjustments to non-GAAP net income (loss) for the potential impact of the convertible senior notes outstanding under the if-converted method.

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	2019[1]	2020	2019[1]
	(dollars in thousands)			
Net loss	$ (60,100)	$ (42,980)	$ (117,762)	$ (94,946)
Add:				
Stock-based compensation expense	48,394	31,274	86,122	53,959
Non-cash charitable contributions	1,881	652	2,417	652
Amortization of acquired intangibles	1,594	1,785	3,187	2,548
Acquisition-related expenses[2]	—	—	—	3,449
Amortization of debt discount and debt issuance costs[3]	15,973	4,088	26,330	8,113
Loss on early extinguishment of debt[4]	2,174	—	2,174	—
Non-GAAP net income (loss)	$ 9,916	$ (5,181)	$ 2,468	$ (26,225)
Weighted-average shares used to compute net loss per share, basic and diluted	126,319	115,033	124,922	114,042
Non-GAAP weighted-average effect of potentially dilutive securities	15,936	—	16,281	—
Non-GAAP weighted-average shares used to compute non-GAAP net income (loss) per share, diluted	142,255	115,033	141,203	114,042
Net loss per share, basic and diluted	$ (0.48)	$ (0.37)	$ (0.94)	$ (0.83)
Non-GAAP net income (loss) per share, basic[5]	$ 0.08	$ (0.05)	$ 0.02	$ (0.23)
Non-GAAP net income (loss) per share, diluted[5]	$ 0.07	$ (0.05)	$ 0.02	$ (0.23)

(1) Prior periods have been adjusted to conform to the current presentation. See footnotes (3), (4) and (5) for additional details.

(2) We define acquisition-related expenses as costs associated with acquisitions, including transaction costs and other non-recurring incremental costs incurred.

(3) Amortization of debt issuance costs is an adjustment to non-GAAP net income (loss), effective the three and six months ended July 31, 2020. Debt issuance costs included are $0.8 million and $1.4 million for the three and six months ended July 31, 2020, respectively, and $0.3 million and $0.6 million for the three and six months ended July 31, 2019, respectively.

(4) Loss on early extinguishment of debt is calculated inclusive of write-offs of debt issuance costs, effective the three and six months ended July 31, 2020. The amounts of these write-offs are $1.0 million for the three and six months ended July 31, 2020, respectively, and nil for the three and six months ended July 31, 2019, respectively.

(5) The total impact of the adjustments noted in footnotes (3) and (4) and for the periods noted in footnote (1) above on non-GAAP net income (loss) per share, basic and diluted is nil and $0.01 for the three and six months ended July 31, 2019, respectively.

Free Cash Flow and Free Cash Flow Margin

We define Free Cash Flow as net cash provided by (used in) operating activities, less cash used for purchases of property and equipment, net of sales proceeds, and capitalized internal-use software costs. Free cash flow margin is calculated as free cash flow divided by total revenue.

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	**2019**	**2020**	**2019**
	(dollars in thousands)			
Net cash provided by (used in) operating activities	$ 10,930	$ (1,134)	$ 49,627	$ 20,128
Less:				
Purchases of property and equipment	(2,739)	(2,207)	(10,669)	(9,917)
Capitalization of internal-use software costs	(1,326)	(961)	(2,326)	(1,330)
Free cash flow	$ 6,865	$ (4,302)	$ 36,632	$ 8,881
Net cash used in investing activities	$ (722,865)	$ (22,383)	$ (672,261)	$ (147,990)
Net cash provided by financing activities	$ 1,047,080	$ 23,070	$ 1,061,247	$ 36,332
Free cash flow margin	3%	(3)%	10%	3%

Calculated Billings

We define Calculated Billings as total revenue plus the change in deferred revenue and less the change in unbilled receivables during the period.

	Three Months Ended July 31,		Six Months Ended July 31,	
	2020	**2019**	**2020**	**2019**
	(in thousands)			
Total revenue	$ 200,446	$ 140,480	$ 383,305	$ 265,703
Add:				
Deferred revenue (end of period)	396,820	291,193	396,820	291,193
Unbilled receivables (beginning of period)	1,121	799	1,026	1,457
Less:				
Unbilled receivables (end of period)	(2,113)	(1,004)	(2,113)	(1,004)
Deferred revenue (beginning of period)	(398,191)	(275,704)	(371,450)	(254,390)
Calculated billings	$ 198,083	$ 155,764	$ 407,588	$ 302,959

Liquidity and Capital Resources

As of July 31, 2020, our principal sources of liquidity were cash, cash equivalents and short-term investments totaling $2,514.5 million, which were held for working capital purposes. Our cash equivalents and investments consisted primarily of U.S. treasury securities, money market funds and corporate debt securities. Historically, we have generated significant operating losses and both positive and negative cash flows from operations as reflected in our accumulated deficit and condensed consolidated statements of cash flows. We expect to continue to incur operating losses and cash flows from operations that may fluctuate between positive and negative amounts for the foreseeable future.

In February 2018, we completed our private offering of the 2023 Notes and received aggregate proceeds of $345.0 million, before deducting costs of issuance of $10.0 million. In connection with the issuance of the 2023 Notes, we entered into convertible Note Hedges with respect to our Class A common stock. We used an aggregate amount of $80.0 million of the net proceeds from the sale of the 2023 Notes to purchase the Note Hedges. The cost of the Note Hedges was partially offset by proceeds of $52.4 million from the sale of warrants to purchase shares of our Class A common stock in connection with the issuance of the 2023 Notes.

In September 2019, we completed our private offering of the 2025 Notes and received aggregate proceeds of $1,060.0 million, before deducting issuance costs of approximately $19.3 million. In connection with the 2025 Notes, we entered into Capped Call transactions with respect to our Class A common stock. We used an aggregate amount of $74.1 million of the net proceeds from the sale of the 2025 Notes to purchase the 2025 Capped Calls.

Concurrent with the private offering of the 2025 Notes, we repurchased $224.4 million principal amount of the 2023 Notes in privately-negotiated transactions for aggregate consideration of $604.8 million, including approximately $224.4 million in cash and approximately 3.0 million shares of Class A common stock. We also terminated a portion of our existing Note Hedges and Warrants in amounts corresponding to the principal amount of the First Partial Repurchase of 2023 Notes for net proceeds of $47.2 million.

In June 2020, we completed our private offering of the 2026 Notes and received aggregate proceeds of $1,150.0 million, before deducting issuance costs of approximately $15.1 million. In connection with the 2026 Notes, we entered into Capped Call transactions with respect to our Class A common stock. We used an aggregate amount of $134.0 million of the net proceeds from the sale of the 2026 Notes to purchase the 2026 Capped Calls.

Concurrent with the private offering of the 2026 Notes, we repurchased $69.9 million principal amount of the 2023 Notes in privately-negotiated transactions for aggregate consideration of $260.5 million, including approximately 1.4 million shares of Class A common stock and $0.2 million in cash. We also terminated a portion of our existing Note Hedges and Warrants in amounts corresponding to the principal amount of the Second Partial Repurchase of 2023 Notes for net proceeds of $19.6 million.

While the potential impacts of the COVID-19 pandemic may create near-term headwinds for cash flow caused by factors such as delays in customer payments and delays in deals closing, we believe our existing cash and cash equivalents, our short-term investments and cash provided by sales of our products and services will be sufficient to meet our working capital and capital expenditure needs for at least the next 12 months. Our future capital requirements will depend on many factors, including our subscription growth rate, subscription renewal activity, billing frequency, the timing and extent of spending to support development efforts, the expansion of sales and marketing activities, the expansion of our international operations, the introduction of new and enhanced product offerings, and the continuing market adoption of our platform. We continue to assess our capital structure and evaluate the merits of deploying available cash. We may in the future enter into arrangements to acquire or invest in complementary businesses, services and technologies, including intellectual property rights. We may be required 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 or generate cash flows necessary to expand our operations and invest in new technologies this could reduce our ability to compete successfully and harm our results of operations.

A significant majority of our customers pay in advance for annual subscriptions. Therefore, a substantial source of our cash is from our deferred revenue, which is included on our condensed consolidated balance sheet as a liability. Deferred revenue consists of the unearned portion of billed fees for our subscriptions, which is recognized as revenue in accordance with our revenue recognition policy. As of July 31, 2020, we had deferred revenue of $396.8 million, of which $391.2 million was recorded as a current liability and is expected to be recorded as revenue in the next 12 months, provided all other revenue recognition criteria have been met.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Six Months Ended July 31,	
	2020	**2019**
	(in thousands)	
Net cash provided by operating activities	$ 49,627	$ 20,128
Net cash used in investing activities	(672,261)	(147,990)
Net cash provided by financing activities	1,061,247	36,332
Effects of changes in foreign currency exchange rates on cash, cash equivalents and restricted cash	578	(1,187)
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 439,191	$ (92,717)

Operating Activities

Our largest source of operating cash is cash collections from our customers for subscription and professional services. Our primary uses of cash from operating activities are for employee-related expenditures, marketing expenses and third-party hosting costs. In recent periods, we have supplemented working capital requirements through net proceeds from the issuance of the 2023, 2025 and 2026 Notes in February 2018, September 2019 and June 2020, respectively, and from our IPO in April 2017.

During the six months ended July 31, 2020, cash provided by operating activities was $49.6 million primarily due to our net loss of $117.8 million, adjusted for non-cash charges of $147.3 million and net cash inflows of $20.1 million provided by changes in our operating assets and liabilities. Non-cash charges primarily consisted of stock-based compensation, amortization of debt discount and issuance costs, amortization of deferred commissions and depreciation, amortization and accretion of property and equipment, intangible assets and short-term investments. The primary drivers of the changes in operating assets and liabilities related to a $25.4 million increase in deferred revenue, a $18.6 million decrease in accounts receivable, a $15.9 million increase in accounts payable and accrued compensation and a $9.0 million decrease in operating lease right-of-use assets, partially offset by a $30.3 million increase in deferred commissions, a $7.7 million decrease in operating lease liabilities, a $7.6 million increase in prepaid expenses and other assets and a $3.1 million decrease in accrued expenses and other liabilities.

During the six months ended July 31, 2019, cash provided by operating activities was $20.1 million primarily due to our net loss of $94.9 million, adjusted for non-cash charges of $80.9 million and net cash inflows of $34.2 million provided by changes in our operating assets and liabilities. Non-cash charges primarily consisted of stock-based compensation, amortization of debt discount and issuance costs, amortization of deferred commissions and depreciation and amortization of property and equipment and intangible assets, offset by non-cash income from deferred income taxes. The primary drivers of the changes in operating assets and liabilities related to a $36.2 million increase in deferred revenue, a $7.4 million increase in accounts payable, accrued compensation, and accrued other expenses, a $4.5 million decrease in accounts receivable, a $1.5 million decrease in prepaid expenses and other assets and a $6.2 million decrease in operating lease right-of-use assets, partially offset by a $21.4 million increase in deferred commissions.

Investing Activities

Net cash used in investing activities during the six months ended July 31, 2020 of $672.3 million was primarily attributable to purchases of investments of $1,029.3 million partially offset by proceeds from the sales and maturities of investments of $370.0 million, purchases of property and equipment of $10.7 million to support additional office space and headcount and the capitalization of internal-use software costs of $2.3 million associated with the development of additional features and functionality of our platform.

Net cash used in investing activities during the six months ended July 31, 2019 of $148.0 million was primarily attributable to the purchases of investments of $237.7 million, payment of $44.2 million, net of cash acquired, in connection with our Azuqua acquisition, payment of $8.5 million in connection with the purchase of developed technology intangible assets, purchases of property and equipment of $9.9 million to support additional office space and headcount, and the capitalization of internal-use software costs of $1.3 million associated with the development of additional features and functionality of our platform. These activities were offset by proceeds from the sales and maturities of investments of $153.7 million.

Financing Activities

Cash provided by financing activities during the six months ended July 31, 2020 of $1,061.2 million was primarily attributable to the issuance of 2026 Notes for proceeds of $1,135.4 million, net of issuance costs and proceeds from the termination of existing Note Hedges of $195.0 million, offset by payments for the termination of existing Warrants of $175.4 million and the purchase of 2026 Capped Calls of $134.0 million. Other items impacting cash provided by financing activities include proceeds from the exercise of stock options of $27.5 million and proceeds from employee purchases under our ESPP of $12.8 million.

Cash provided by financing activities during the six months ended July 31, 2019 of $36.3 million was primarily attributable to proceeds from the exercise of stock options, net of repurchases, of $27.5 million and proceeds from employee purchases under our ESPP of $9.0 million.

Indemnification Agreements

In the ordinary course of business, we enter into agreements of varying scope and terms pursuant to which we agree to indemnify customers, vendors, lessors, business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of the breach of such agreements, services to be provided by us or from intellectual property infringement claims made by third parties. In addition, we have entered into indemnification agreements with our directors and certain officers and employees that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No demands have been made upon us to provide indemnification under such agreements and there are no claims that we are aware of that could have a material effect on our condensed consolidated balance sheets, condensed consolidated statements of operations and comprehensive loss, or condensed consolidated statements of cash flows.

Off-Balance Sheet Arrangements

As of July 31, 2020, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

We prepare our condensed consolidated financial statements in accordance with GAAP. In the preparation of these condensed consolidated financial statements, we are required to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. To the extent that there are material differences between these estimates and actual results, our financial condition or results of operations would be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as critical accounting policies and estimates, which we discuss below.

Our significant accounting policies are discussed in “Notes to Consolidated Financial Statements - Note 2. Summary of Significant Accounting Policies” in our Form 10-K. There have been no significant changes to these policies for the six months ended July 31, 2020, except as described in Note 2 to our condensed consolidated financial statements “Accounting Standards and Significant Accounting Policies”.

Recent Accounting Pronouncements

See Note 2 to our condensed consolidated financial statements “Accounting Standards and Significant Accounting Policies” for more information.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Exchange Risk

The functional currencies of our foreign subsidiaries are the respective local currencies. Most of our sales are denominated in U.S. dollars, and therefore our revenue is not currently subject to significant foreign currency risk. Our operating expenses are denominated in the currencies of the countries in which our operations are located, which are primarily in the United States, the United Kingdom, Canada, Australia, the Netherlands, Germany and France. Our condensed consolidated results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. To date, we have not entered into any hedging arrangements with respect to foreign currency risk or other derivative financial instruments. During the six months ended July 31, 2020 and 2019, a hypothetical 10% change in foreign currency exchange rates applicable to our business would not have had a material impact on our condensed consolidated financial statements.

Interest Rate Risk

We had cash, cash equivalents and short-term investments totaling $2,514.5 million as of July 31, 2020, of which $2,415.2 million was invested in U.S. treasury securities, money market funds, and corporate debt securities. Our cash and cash equivalents are held for working capital purposes. Our short-term investments are made for capital preservation purposes. We do not enter into investments for trading or speculative purposes.

Our cash equivalents and our investment portfolio are subject to market risk due to changes in interest rates. Fixed rate securities may have their market value adversely affected due to a rise in interest rates. Due in part to these factors, our future investment income may fall short of our expectations due to changes in interest rates or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates. However, because we classify our short-term investments as “available for sale,” no gains are recognized due to changes in interest rates. As losses due to changes in interest rates are generally not considered to be credit related changes, no losses in such securities are recognized due to changes in interest rates unless we intend to sell, it is more likely than not that we will be required to sell, we sell prior to maturity, or we otherwise determine that all or a portion of the decline in fair value are due to credit related factors.

As of July 31, 2020, a hypothetical 10% relative change in interest rates would not have had a material impact on the value of our cash equivalents or investment portfolio. Fluctuations in the value of our cash equivalents and investment portfolio caused by a change in interest rates (gains or losses on the carrying value) are recorded in other comprehensive income (loss), and are realized only if we sell the underlying securities prior to maturity.

Convertible Senior Notes

In February 2018, we issued the 2023 Notes due February 15, 2023 with a principal amount of $345.0 million, of which $224.4 million and $69.9 million were repurchased in September 2019 and June 2020, respectively. Concurrently with the issuance of the 2023 Notes, we entered into separate Note Hedges and Warrant transactions, a portion of which were terminated in September 2019 and June 2020 in connection with the 2023 Notes Partial Repurchases. The Note Hedges were completed to reduce the potential dilution from the conversion of the 2023 Notes.

In September 2019 and June 2020, we issued the 2025 Notes due September 1, 2025 and 2026 Notes due June 15, 2026 with a principal amount of $1,060.0 million and $1,150.0 million, respectively. Concurrently with the issuance of the 2025 Notes and 2026 Notes, we entered into separate Capped Call transactions. The 2025 Capped Calls and 2026 Capped Calls were completed to reduce the potential dilution from the conversion of the 2025 Notes and 2026 Notes, respectively.

The 2023, 2025 and 2026 Notes have fixed annual interest rates of 0.25%, 0.125% and 0.375% respectively; accordingly, we do not have economic interest rate exposure on the Notes. However, the fair value of the Notes is exposed to interest rate risk. Generally, the fair market value of the fixed interest rate of the Notes will increase as interest rates fall and decrease as interest rates rise. In addition, the fair value of the Notes fluctuates when the market price of our common stock fluctuates. The fair value was determined based on the quoted bid price of the Notes in an over-the-counter market on the last trading day of the reporting period. See Note 5 to our condensed consolidated financial statements for more information.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on such evaluation, our principal executive officer and principal financial officer have concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable assurance level. In addition, our ability to maintain an effective internal control environment has not been impacted by the COVID-19 pandemic.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Part II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time in the normal course of business, the Company may be subject to various legal matters such as threatened or pending claims or proceedings. There were no material such matters as of July 31, 2020.

Item 1A. Risk Factors

A description of the risks and uncertainties associated with our business is set forth below. You should carefully consider the risks and uncertainties described below, as well as the other information in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The occurrence of any of the events or developments described below, or of additional risks and uncertainties not presently known to us or that we currently deem immaterial, could materially and adversely affect our business, results of operations, financial condition and growth prospects. In such an event, the market price of our Class A common stock could decline and you could lose all or part of your investment.

Risks Related to Our Business

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

In December 2019, a novel coronavirus (COVID-19) was reported in China, in January 2020, the World Health Organization (WHO) declared it a Public Health Emergency of International Concern and in March 2020, the WHO declared it a pandemic. This contagious disease outbreak has continued to spread across the globe and is impacting worldwide economic activity and financial markets, resulting in an economic downturn that may become a global recession. The extent of the impact of COVID-19 on our future operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, related public health measures, and their impact on the global economy, our customers, employees and vendors. In the absence of a vaccine or effective therapeutics, we expect to see continued fluctuations in business openings and closures as communities respond to local outbreaks. This pandemic has resulted in a widespread health crisis that is adversely affecting broader economies and financial markets.

As a result of the COVID-19 pandemic, we have temporarily closed our offices, required our employees to work from home and implemented significant travel restrictions. We shifted our annual user conference, Oktane20 Live, held in the spring of 2020, to a virtual-only conference and in the near-term we have changed our customer, employee and industry events to virtual-only formats. The conditions caused by the COVID-19 pandemic have and may continue to affect the rate of IT spending and have and could adversely affect our current and potential customers' ability or willingness to purchase our offerings. It has and could continue to delay current and prospective customers' purchasing decisions, adversely impact our ability to provide professional services to our customers, delay the provisioning of our offerings, lengthen payment terms, reduce the value or duration of our subscription contracts, or affect customer attrition rates, all of which could adversely affect our future sales, operating results and overall financial performance.

Our operations have also begun to be negatively affected by a range of external factors related to the COVID-19 pandemic that are not within our control. For example, many cities, counties, states, and countries have imposed or may impose a wide range of restrictions on our employees', partners', customers' and potential customers' physical movement to limit the spread of COVID-19. If the COVID-19 pandemic has a substantial impact on our employees', partners', customers' or potential customers' attendance or productivity, our results of operations and overall financial performance may be harmed.

The duration and extent of the impact from the COVID-19 pandemic depends on future developments that cannot be accurately predicted at this time, such as the severity and transmission rate of the virus, the extent and effectiveness of containment actions and the impact of these and other factors on our employees, customers, partners and vendors as well as the global economy. Despite our best efforts to manage the impact of such events effectively, our business still may be harmed.

Adverse general economic and market conditions and reductions in workforce identity and customer identity spending may reduce demand for our products, which could harm our revenue, results of operations and cash flows.

Our revenue, results of operations and cash flows depend on the overall demand for our products. Concerns about the COVID-19 pandemic, the systemic impact of a related widespread recession (in the United States or internationally), energy costs, geopolitical issues or the availability and cost of credit have and could continue to lead to increased market volatility, decreased consumer confidence and diminished growth expectations in the U.S. economy and abroad, which in turn could result in reductions in workforce identity and customer identity spending by our existing and prospective customers. These economic conditions can occur abruptly. Prolonged economic slowdowns may result in customers requesting us to renegotiate existing contracts on less advantageous terms to us than those currently in place or defaulting on payments due on existing contracts or not renewing at the end of the contract term.

Our customers may merge with other entities who use alternative identity solutions and, during weak economic times, there is an increased risk that one or more of our customers will file for bankruptcy protection, either of which may harm our revenue, profitability and results of operations. We also face risk from international customers that file for bankruptcy protection in foreign jurisdictions, particularly given that the application of foreign bankruptcy laws may be more difficult to predict. In addition, we may determine that the cost of pursuing any claim may outweigh the recovery potential of such claim. As a result, if economic growth in countries where we do business slows or if such countries experience further economic recession, it could harm our business, revenue, results of operations and cash flows.

We have experienced rapid growth in recent periods, which makes it difficult to forecast our revenue and evaluate our business and future prospects.

Much of our growth has occurred in recent periods, which makes it difficult to forecast our revenue and evaluate our business and future prospects. We have encountered and will continue to encounter risks and uncertainties frequently experienced by growing companies in rapidly changing industries, including the risks and uncertainties described in this document. Additionally, the sales cycle for the evaluation and implementation of our platform, which typically extends for multiple months for enterprise deals, may also cause us to experience a delay between increasing operating expenses and the generation of corresponding revenue, if any. Accordingly, we may be unable to prepare accurate internal financial forecasts or replace anticipated revenue that we do not receive as a result of delays arising from these factors, and our results of operations in future reporting periods may be below the expectations of investors. If we do not address these risks successfully, our results of operations could differ materially from our estimates and forecasts or the expectations of investors, causing our business to suffer and our stock price to decline.

We have experienced rapid growth in recent periods, and our recent growth rates may not be indicative of our future growth. As our costs increase, we may not be able to generate sufficient revenue to achieve and, if achieved, maintain profitability.

From fiscal 2018 to fiscal 2019, our revenue grew from $256.5 million to $399.3 million, an increase of 56%, and from fiscal 2019 to fiscal 2020, our revenue grew from $399.3 million to $586.1 million, an increase of 47%. In future periods, we may not be able to sustain revenue growth consistent with recent history, or at all. We believe our revenue growth depends on a number of factors, such as macroeconomic conditions and the economic impact of the COVID-19 pandemic, as well as, but not limited to, our ability to:

- price our platform effectively so that we are able to attract and retain customers without compromising our profitability;
- attract new customers, successfully deploy and implement our platform, upsell or otherwise increase our existing customers' use of our platform, obtain customer renewals and provide our customers with excellent customer support;
- increase our network of channel partners, which include resellers, system integrators and other distribution partners and independent software vendors (ISVs);
- adequately expand our sales force, and maintain or increase our sales force's productivity;
- successfully identify and enter into agreements with suitable acquisition targets, integrate any acquisitions and integrate acquired technologies into our existing products or use them to develop new products;
- successfully introduce new products, enhance existing products and address new use cases;

- introduce our platform to new markets outside of the United States;
- successfully compete against larger companies and new market entrants; and
- increase awareness of our brand on a global basis.

If we are unable to accomplish any of these tasks, our revenue growth will be harmed. We also expect our operating expenses to increase in future periods, and if our revenue growth does not increase to offset these anticipated increases in our operating expenses, our business, financial position and results of operations will be harmed, and we may not be able to achieve or maintain profitability.

We have a history of losses, and we expect to incur losses for the foreseeable future.

We have incurred significant net losses in each year since our inception, including net losses of $109.8 million, $125.5 million and $208.9 million in fiscal 2018, 2019 and 2020, respectively. We expect to continue to incur net losses for the foreseeable future. Because the market for our platform is rapidly evolving and has not yet reached widespread adoption, it is difficult for us to predict our future results of operations. We expect our operating expenses to significantly increase over the next several years as we hire additional personnel, particularly in sales and marketing, expand and improve the effectiveness of our distribution channels, expand our operations and infrastructure, both domestically and internationally, pursue business combinations and continue to develop our platform. As we continue to develop as a public company, we may incur additional legal, accounting and other expenses that we did not incur historically. If our revenue does not increase to offset these increases in our operating expenses, we will not be profitable in future periods. While historically, our total revenue has grown, not all components of our total revenue have grown consistently. Further, in future periods, our revenue growth could slow or our revenue could decline for a number of reasons, including slowing demand for our software, increasing competition, any failure to gain or retain channel partners, a decrease in the growth of our overall market, or our failure, for any reason, to continue to capitalize on growth opportunities. As a result, our past financial performance should not be considered indicative of our future performance. Any failure by us to achieve or sustain profitability on a consistent basis could cause the value of our common stock to decline.

If we fail to manage our growth effectively, we may be unable to execute our business plan, maintain high levels of service and customer satisfaction or adequately address competitive challenges.

We have experienced, and may continue to experience, rapid growth and organizational change, which has placed, and may continue to place, significant demands on our management and our operational and financial resources. For example, our headcount has grown from 1,943 employees as of July 31, 2019 to 2,489 employees as of July 31, 2020. We have also experienced significant growth in the number of customers, users and logins and in the amount of data that our Software-as-a-Service, or SaaS, infrastructure supports. Finally, our organizational structure is becoming more complex as we improve our operational, financial and management controls as well as our reporting systems and procedures. We will require significant capital expenditures and the allocation of valuable management resources to grow and change in these areas without undermining our culture of rapid innovation, teamwork and attention to customer success, which has been central to our growth so far. If we fail to manage our anticipated growth and change in a manner that preserves the key aspects of our corporate culture, the quality of our platform may suffer, which could negatively affect our brand and reputation and harm our ability to retain and attract customers and employees.

We have established international offices, including offices in the United Kingdom, the Netherlands, Sweden, France, Germany, Canada, Australia, Singapore and Japan, and we may continue to expand our international operations into other countries in the future. Our expansion has placed, and our expected future growth will continue to place, a significant strain on our managerial, customer operations, research and development, marketing and sales, administrative, financial and other resources. If we are unable to manage our continued growth successfully, our business and results of operations could suffer.

In addition, as we expand our business, it is important that we continue to maintain a high level of customer service and satisfaction. As our customer base continues to grow, we will need to expand our account management, customer service and other personnel, and our network of ISVs, system integrators and other channel partners, to provide personalized account management and customer service. If we are not able to continue to provide high levels of customer service, our reputation, as well as our business, results of operations and financial condition, could be harmed.

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

The markets for our products are rapidly evolving, highly competitive and subject to shifting customer needs and frequent introductions of new technologies. As the markets in which we operate continue to mature and new technologies and competitors enter such markets, we expect competition to intensify. Our competitor categories include, but are not limited to:

- Authentication providers;
- Access and lifecycle management providers;
- Multi-factor authentication providers;
- Infrastructure-as-a-service providers;
- Other customer identity and access management providers; and
- Solutions developed in-house by our potential customers.

We compete with both cloud-based and on-premise enterprise application software providers. Our competitors vary in size and in the breadth and scope of the products and services offered. However, many of our competitors have substantial competitive advantages such as significantly greater financial, technical, sales and marketing, distribution, customer support or other resources, larger intellectual property portfolios, longer operating histories, greater resources to make strategic acquisitions and greater name recognition than we do. Our principal competitor is Microsoft.

With the continuing merger and acquisition activity in the technology industry, particularly transactions involving security or identity and access management technologies, there is a greater likelihood that we will compete with other large technology companies in the future in both the workforce identity and customer identity markets.

In addition, some of our larger competitors have substantially broader product offerings and 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, including through selling at zero or negative margins, product bundling or closed technology platforms. Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier regardless of product performance or features. These larger competitors often have broader product lines and market focus and as a result are not as susceptible to downturns in a particular market. Our competitors may also seek to acquire new offerings or repurpose their existing offerings to provide identity solutions with subscription models. Conditions in our market could change rapidly and significantly as a result of technological advancements, partnering 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. In addition, some of our competitors may enter into new alliances with each other or may establish or strengthen cooperative relationships with systems integrators, third-party consulting firms or other parties. Any such consolidation, acquisition, alliance or cooperative relationship could lead to pricing pressure and our loss of market share and could result in a competitor with greater financial, technical, marketing, service and other resources, all of which could harm our ability to compete. Furthermore, organizations may be more willing to incrementally add solutions to their existing infrastructure from competitors than to replace their existing infrastructure with our products. These competitive pressures in our market or our failure to compete effectively may result in price reductions, fewer orders, reduced revenue and gross margins, increased net losses, and loss of market share. Any failure to meet and address these factors could harm our business, results of operations and financial condition.

If we are unable to attract new customers, sell additional products to our existing customers or develop new products and enhancements to our products that achieve market acceptance, our revenue growth and profitability will be harmed.

To increase our revenue and achieve and maintain profitability, we must add new customers or sell additional products to our existing customers. Numerous factors, however, may impede our ability to add new customers and sell additional products to our existing customers, including our failure to convert new organizations into paying customers, failure to attract, effectively train, retain and motivate sales and marketing personnel, failure to develop or expand relationships with channel partners, failure to successfully deploy products for new customers and provide quality customer support or failure to ensure the effectiveness of our marketing programs. In addition, if prospective customers do not perceive our platform to be of sufficiently high value and quality, we will not be able to attract the number and types of new customers that we are seeking.

In addition, our ability to attract new customers and increase revenue from existing customers depends in large part on our ability to enhance and improve our existing products and to introduce compelling new products that reflect the changing nature of our markets. The success of any enhancement to our products depends on several factors, including timely completion and delivery, competitive pricing, adequate quality testing, integration with existing technologies and our platform and overall market acceptance. If we are unable to successfully develop new products, enhance our existing products to meet customer requirements, or otherwise gain market acceptance, our business, results of operations and financial condition would be harmed.

Further, to grow our business, we must convince developers to adopt and build their applications using our APIs and products. We believe that these developer-built applications facilitate greater usage and customization of our products. If these developers stop developing on or supporting our platform, we will lose the benefit of network effects that have contributed to the growth in our number of customers, and our business (including the performance levels of our products), results of operations and financial condition could be harmed.

Our business depends on our customers renewing their subscriptions and purchasing additional licenses or subscriptions from us. Any material decline in our Dollar-Based Net Retention Rate would harm our future results of operations.

To continue to grow our business, it is important that our customers renew their subscriptions when existing contract terms expire and that we expand our commercial relationships with our existing customers. Our customers have no obligation to renew their subscriptions, and our customers may decide not to renew their subscriptions with a similar contract period, at the same prices and terms or with the same or a greater number of users. We have experienced significant growth in the number of users of our platform, but we do not know whether we will continue to achieve similar user growth rates in the future. In the past, some of our customers have elected not to renew their agreements with us, and it is difficult to accurately predict long-term customer retention and expansion rates. Our customer retention and expansion may decline or fluctuate as a result of a number of factors, including our customers' satisfaction with our products, our product support, our prices and pricing plans, particularly in light of COVID-19 related economic conditions, the prices of competing software products, reductions in our customers' spending levels, user adoption of our platform, deployment success, utilization rates by our customers, new product releases and changes to the packaging of our product offerings. If our customers do not purchase additional subscriptions or renew their subscriptions, renew on less favorable terms or fail to add more users, our revenue may decline or grow less quickly than anticipated, which would harm our future results of operations. Furthermore, if our contractual license terms were to shorten it could lead to increased volatility of, and diminished visibility into, future recurring revenue. If our sales of new or recurring subscriptions and software-related support service contracts decline from existing customers, our revenue and revenue growth may decline, and our business will suffer.

Customer growth could fall below expectations.

We have experienced significant growth in the number of our customers in recent periods. As our customer base continues to grow and as we increase our focus on sales to the world's largest organizations, we do not expect customer growth to continue at the same pace as it has previously. These factors could cause customer growth to fall below analyst or investor expectations. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our Class A common stock could fall substantially, and we could face costly lawsuits, including securities class action suits.

If there are interruptions or performance problems associated with our technology or infrastructure, our existing customers may experience service outages, and our new customers may experience delays in the deployment of our platform.

Our continued growth depends, in part, on the ability of our existing and potential customers to access our platform 24 hours a day, seven days a week, without interruption or degradation of performance. We may experience disruptions, data loss, outages and other performance problems with our infrastructure due to a variety of factors, including infrastructure changes, introductions of new functionality, human or software errors, capacity constraints, denial-of-service attacks or other security-related incidents. In some instances, we may not be able to identify the cause or causes of these performance problems immediately or in short order. We may not be able to maintain the level of service uptime and performance required by our customers, especially during peak usage times and as our products become more complex and our user traffic increases. For example, in October 2016, a distributed denial-of-service attack against Dyn, a domain name service vendor we use (since acquired by Oracle), prevented many of our customers and their users in the United States from accessing our platform or applications authenticated by our platform and resulted in our failing to meet certain contracted uptime levels under our service level agreements and the issuance of service credits to some of our customers, although the dollar value of such credits were not material. If our platform is unavailable or if our customers are unable to access our products or deploy them within a reasonable amount of time, or at all, our business would be harmed. Since our customers rely on our service to access and complete their work, any outage on our platform would impair the ability of our customers to perform their work, which would negatively impact our brand, reputation and customer satisfaction. Moreover, we depend on services from various third parties to maintain our infrastructure and distribute our products via the Internet. If a service provider fails to provide sufficient capacity to support our platform or otherwise experiences service outages, such failure could interrupt our customers' access to our service, which could adversely affect their perception of our platform's reliability and our revenues. Any disruptions in these services, including as a result of actions outside of our control, would significantly impact the continued performance of our products. In the future, these services may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of these services could result in decreased functionality of our products until equivalent technology is either developed by us or, if available from another provider, is identified, obtained and integrated into our infrastructure. If we do not accurately predict our infrastructure capacity requirements, our customers could experience service shortfalls. We may also be unable to effectively address capacity constraints, upgrade our systems as needed, and continually develop our technology and network architecture to accommodate actual and anticipated changes in technology.

Any of the above circumstances or events may harm our reputation, cause customers to terminate their agreements with us, impair our ability to obtain subscription renewals from existing customers, impair our ability to grow our customer base, result in the expenditure of significant financial, technical and engineering resources, subject us to financial penalties and liabilities under our service level agreements, and otherwise harm our business, results of operations and financial condition.

An application, data security or network incident may allow unauthorized access to our systems or data or our customers' data, disable access to our service, harm our reputation, create additional liability and adversely impact our financial results.

Increasingly, companies are subject to a wide variety of attacks on their systems and networks on an ongoing basis. In addition to threats from traditional computer "hackers," malicious code (such as malware, viruses, worms and ransomware), employee or contractor theft or misuse, password spraying, phishing and denial-of-service attacks, we and our third-party service providers now also face threats from sophisticated nation-state and nation-state supported actors who engage in attacks (including advanced persistent threat intrusions) that add to the risks to our systems (including those hosted on AWS or other cloud services), internal networks, our customers' systems and the information that they store and process. Despite significant efforts to create security barriers to such threats, it is virtually impossible for us to entirely mitigate these risks. As a well-known provider of identity and security solutions, we pose an attractive target for such attacks. The security measures we have integrated into our internal systems and platform, which are designed to detect unauthorized activity and prevent or minimize security breaches, may not function as expected or may not be sufficient to protect our internal networks and platform against certain attacks. In addition, techniques used to sabotage or to obtain unauthorized access to networks in which data is stored or through which data is transmitted change frequently, become more complex over time and generally are not recognized until launched against a target. As a result, we and our third-party service providers may be unable to anticipate these techniques or implement adequate preventative measures quickly enough to prevent either an electronic intrusion into our systems or services or a compromise of customer data.

Our customers' use of Okta to access business systems and store data concerning, among others, their employees, contractors, partners and customers is essential to their use of our platform, which stores, transmits and processes customers' proprietary information and personal data. If a breach of customer data on our platform were to occur, as a result of third-party action, technology limitations, employee or contractor error, malfeasance or otherwise, and the confidentiality, integrity or availability of our customers' data or systems was disrupted, we could incur significant liability to our customers and to individuals or businesses whose information was being stored by our customers, and our platform may be perceived as less desirable, which could negatively affect our business and damage our reputation. Because techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and generally are not recognized until launched against a target, we, our third-party service providers and our customers may be unable to anticipate these techniques or to implement adequate preventive measures. Further, because we do not control our third-party service providers, or the processing of data by our third-party service providers, we cannot ensure the integrity or security of measures they take to protect customer information and prevent data loss.

In addition, security breaches impacting our platform could result in a risk of loss or unauthorized disclosure of this information, or the denial of access to this information, which, in turn, could lead to enforcement actions, litigation, regulatory or governmental audits, investigations and possible liability, and increased requests by individuals regarding their personal data. Security breaches could also damage our relationships with and ability to attract customers and partners, and trigger service availability, indemnification and other contractual obligations. Security incidents may also cause us to incur significant investigation, mitigation, remediation, notification and other expenses. Furthermore, as a well-known provider of identity and security solutions, any such breach, including a breach of our customers' systems, could compromise systems secured by our products, creating system disruptions or slowdowns and exploiting security vulnerabilities of our or our customers' systems, and the information stored on our or our customers' systems could be accessed, publicly disclosed, altered, lost or stolen, which could subject us to liability and cause us financial harm. While we maintain cybersecurity insurance, our insurance may be insufficient to cover all liabilities incurred in these incidents, and any incidents may result in loss of, or increased costs of, our cybersecurity insurance. These breaches, or any perceived breach, of our systems, our customers' systems, or other systems or networks secured by our products, whether or not any such breach is due to a vulnerability in our platform, may also undermine confidence in our platform or our industry and result in damage to our reputation and brand, negative publicity, loss of ISVs and other channel partners, customers and sales, increased costs to remedy any problem, costly litigation and other liability. In addition, a breach of the security measures of one of our key ISVs or other channel partners could result in the exfiltration of confidential corporate information or other data that may provide additional avenues of attack, and if a high profile security breach occurs with respect to a comparable cloud technology provider, our customers and potential customers may lose trust in the security of the cloud business model generally, which could adversely impact our ability to retain existing customers or attract new ones, potentially causing a negative impact on our business. Any of these negative outcomes could adversely impact market acceptance of our products and could harm our business, results of operations and financial condition.

Third parties may attempt to fraudulently induce employees, contractors, customers or our customers' users into disclosing sensitive information such as user names, passwords or other information or otherwise compromise the security of our internal networks, electronic systems and/or physical facilities in order to gain access to our data or our customers' data, which could result in significant legal and financial exposure, a loss of confidence in the security of our platform, interruptions or malfunctions in our operations, account lock outs, and, ultimately, harm to our future business prospects and revenue. We may be required to expend significant capital and financial resources to protect against such threats or to alleviate problems caused by breaches in security.

We may experience quarterly fluctuations in our results of operations due to a number of factors that make our future results difficult to predict and could cause our results of operations to fall below analyst or investor expectations.

Our quarterly results of operations fluctuate from quarter to quarter as a result of a number of factors, many of which are outside of our control and may be difficult to predict, including, but not limited to:

- the level of demand for our platform;
- our ability to attract new customers, obtain renewals from existing customers and upsell or otherwise increase our existing customers' use of our platform;
- health epidemics, such as COVID-19, influenza and other highly communicable diseases or viruses;
- the timing and success of new product introductions by us or our competitors or any other change in the competitive landscape of our market;
- pricing pressure as a result of competition, COVID-19 or otherwise;
- seasonal buying patterns for IT spending;
- the mix of revenue attributable to larger transactions as opposed to smaller transactions, and the associated volatility and timing of our transactions;
- changes in remaining performance obligations (RPO), due to seasonality, the timing of and compounding effects of renewals, invoice duration, size and timing, new business linearity between quarters and within a quarter, average contract term or fluctuations due to foreign currency movements, all of which may impact implied growth rates;

- errors in our forecasting of the demand for our products, which could lead to lower revenue, increased costs or both;
- increases in and timing of sales and marketing and other operating expenses that we may incur to grow and expand our operations and to remain competitive;
- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our platform and products;
- our ability to comply with privacy laws and requirements, including the General Data Protection Regulation and California Consumer Privacy Act;
- costs related to the acquisition of businesses, talent, technologies or intellectual property, including potentially significant amortization costs and possible write-downs;
- credit or other difficulties confronting our channel partners;
- adverse litigation judgments, settlements of litigation and other disputes or other litigation-related or dispute-related costs;
- the impact of new accounting pronouncements and associated system implementations;
- changes in the legislative or regulatory environment;
- fluctuations in foreign currency exchange rates;
- expenses related to real estate, including our office leases, and other fixed expenses; and
- general economic conditions in either domestic or international markets, including geopolitical uncertainty and instability.

Any one or more of the factors above may result in significant fluctuations in our results of operations. You should not rely on our past results as an indicator of our future performance.

The variability and unpredictability of our quarterly results of operations or other operating metrics could result in our failure to meet our expectations or those of analysts that cover us or investors with respect to revenue or other metrics for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our Class A common stock could fall substantially, and we could face costly lawsuits, including securities class action suits.

Any actual or perceived failure by us to comply with the privacy or security provisions of our privacy policy, our contracts and/or legal or regulatory requirements could result in proceedings, actions or penalties against us.

Our customers’ storage and use of data concerning, among others, their employees, contractors, partners and customers is essential to their use of our platform. We have implemented various features intended to enable our customers to better comply with applicable privacy and security requirements in their collection and use of data within our online service, but these features do not ensure their compliance and may not be effective against all potential privacy concerns.

Many jurisdictions have enacted or are considering enacting or revising privacy and/or data security legislation, including laws and regulations applying to the collection, use, storage, transfer, disclosure and/or processing of personal data. The costs of compliance with, and other burdens imposed by, such laws and regulations that are applicable to the operations of our customers may limit the use and adoption of our service and reduce overall demand for it. These privacy and data security related laws and regulations are evolving and may result in increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions. In addition, we are subject to certain contractual obligations regarding the collection, use, storage, transfer, disclosure and/or processing of personal data. Although we are working to comply with those federal, state, and foreign laws and regulations, industry standards, contractual obligations and other legal obligations that apply to us, those laws, regulations, standards and obligations are evolving and may be modified, interpreted and applied in an inconsistent manner from one jurisdiction to another, and may conflict with one another, other requirements or legal obligations, our practices or the features of our platform. In addition, some of our customers rely on our authorization under the Federal Risk and Authorization Management Program, or FedRAMP, to help satisfy their own legal and regulatory compliance requirements which, in addition to state or international regulations, may require us to undertake additional actions and expense to ensure compliance.

We also expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security in the United States, the European Union and other jurisdictions, and we cannot yet determine the impact such future laws, regulations and standards may have on our business. For example, in June 2018 California enacted the California Consumer Privacy Act (CCPA) which took effect on January 1, 2020 and broadly defines personal information, gave California residents expanded privacy rights and protections and provides for civil penalties for violations and a private right of action for data breaches. Additionally, certain countries have passed or are considering passing laws requiring local data residency. In addition, the California Privacy Rights Act of 2020 ("CPRA") recently qualified for the November 2020 ballot. The measure, if passed, would strengthen California privacy law in several ways. It would establish a new category of sensitive personal information and give consumers the ability to limit use of this data; prohibit precise geolocation tracking; add e-mail addresses and passwords to the list of personal information that, if lost or breached, would give the affected consumers the right to bring lawsuits; increase the maximum penalties for violations concerning consumers under age 16; and establish the California Privacy Protection Agency to enforce the new law and impose administrative fines. In addition to government activity, privacy advocacy groups and technology and other industries are considering various new, additional or different self-regulatory standards that may place additional burdens on us. Future laws, regulations, standards and other obligations, and changes in the interpretation of existing laws, regulations, standards and other obligations could impair our or our customers' ability to collect, use or disclose information relating to consumers, which could decrease demand for our applications, increase our costs and impair our ability to maintain and grow our customer base and increase our revenue. New laws, amendments to or re-interpretations of existing laws and regulations, industry standards, contractual obligations and other obligations may require us to incur additional costs and restrict our business operations. Such laws and regulations may require companies to implement privacy and security policies, permit users to access, correct and delete personal data stored or maintained by such companies, inform individuals of security breaches that affect their personal data, and, in some cases, obtain individuals' consent to use personal data for certain purposes. If we, or the third parties on which we rely, fail to comply with federal, state and international data privacy laws and regulations our ability to successfully operate our business and pursue our business goals could be harmed.

Any failure or perceived failure by us to comply with federal, state or foreign laws or regulations, industry standards, contractual obligations or other legal obligations, or any actual or suspected security incident, whether or not resulting in unauthorized access to, or acquisition, release or transfer of personal data or other data, may result in enforcement actions and prosecutions, private litigation, fines, penalties and censure, claims for damages by customers and other affected individuals, or adverse publicity and could cause our customers to lose trust in us, which could have an adverse effect on our reputation and business. Any inability to adequately address privacy and security concerns, even if unfounded, or comply with applicable laws, regulations, policies, industry standards, contractual obligations or other legal obligations could result in additional cost and liability to us, damage our reputation, inhibit sales and adversely affect our business.

Since many of our service's features involve the processing of personal data from our customers and their employees, contractors, customers, partners and others, any inability to adequately address privacy concerns, even if such concerns are unfounded, or to comply with applicable privacy or data security laws, regulations and policies, could result in liability to us and our business, damage to our reputation and inhibition of sales.

Around the world, there are numerous lawsuits in process against various technology companies that process personal data. If those lawsuits are successful, it could increase the likelihood that our company may be exposed to liability for our own policies and practices concerning the processing of personal data and could hurt our business. Furthermore, the costs of compliance with, and other burdens imposed by laws, regulations and policies concerning privacy and data security that are applicable to the businesses of our customers may limit the use and adoption of our platform and reduce overall demand for it. Privacy concerns, whether or not valid, may inhibit market adoption of our platform. Additionally, concerns about security or privacy may result in the adoption of new legislation that restricts the implementation of technologies like ours or requires us to make modifications to our platform, which could significantly limit the adoption and deployment of our technologies or result in significant expense to modify our platform.

We publicly post our privacy policies and practices concerning our processing, use and disclosure of the personal data provided to us by our website visitors and by our customers, and other individuals with whom we interact. Our publication of our privacy policies and other statements we publish that provide promises and assurances about privacy and security can subject us to potential state and federal action if they are found to be deceptive or misrepresentative of our practices.

Evolving and changing definitions of what constitutes “Personal Information” and “Personal Data” within the European Union, the United States and elsewhere, especially relating to classification of IP addresses, machine or device identification numbers, location data and other information, may limit or inhibit our ability to operate or expand our business, including limiting technology alliance partners that may involve the sharing of data. In addition, rapidly-evolving privacy laws and frameworks distinguish between a data processor and data controller (or under the CCPA, whether a business is a ‘service provider’), and different risks and requirements may apply to us, depending on the nature of our data processing activities. If our business model expands and changes over time, different sets of risks and requirements may apply to us, requiring us to re-orient the business accordingly.

If our platform is perceived to cause, or is otherwise unfavorably associated with, violations of privacy or data security requirements, it may subject us or our customers to public criticism and potential legal liability. Existing and potential privacy laws and regulations concerning privacy and data security and increasing sensitivity of consumers to unauthorized processing of personal data may create negative public reactions to technologies, products and services such as ours. Public concerns regarding personal data processing, privacy and security may cause some of our customers’ end users to be less likely to visit their websites or otherwise interact with them. If enough end users choose not to visit our customers’ websites or otherwise interact with them, our customers could stop using our platform. This, in turn, may reduce the value of our service, and slow or eliminate the growth of our business, or cause our business to contract.

If we fail to adapt to rapid technological change, our ability to remain competitive could be impaired.

The industry in which we compete is characterized by rapid technological change, frequent introductions of new products and evolving industry standards. Our ability to attract new customers and increase revenue from existing customers will depend in significant part on our ability to anticipate industry standards and trends and continue to enhance existing products or introduce or acquire new products on a timely basis to keep pace with technological developments. The success of any enhancement or new product depends on several factors, including the timely completion and market acceptance of the enhancement or new product. Any new product we develop or acquire might not be introduced in a timely or cost-effective manner and might not achieve the broad market acceptance necessary to generate significant revenue. If any of our competitors implements new technologies before we are able to implement them, those competitors may be able to provide more effective products than ours at lower prices. Any delay or failure in the introduction of new or enhanced products could harm our business, results of operations and financial condition.

Our financial results may fluctuate due to increasing variability in our sales cycles.

We plan our expenses based on certain assumptions about the length and variability of our sales cycle. These assumptions are based upon historical trends for sales cycles and conversion rates associated with our existing customers. As we continue to focus on sales to larger organizations and in light of the current COVID-19 environment, our sales cycles are lengthening in certain circumstances and becoming less predictable, which may harm our financial results. Other factors that may influence the length and variability of our sales cycle include, among other things:

- the need to raise awareness about the uses and benefits of our platform, including our customer identity products;
- the need to allay privacy, regulatory and security concerns;
- the discretionary nature of purchasing and budget cycles and decisions;
- the competitive nature of evaluation and purchasing processes;
- announcements or planned introductions of new products, features or functionality by us or our competitors; and
- often lengthy purchasing approval processes.

Our increasing focus on sales to larger organizations may further increase the variability of our financial results. If we are unable to close one or more of such expected significant transactions in a particular period, or if such an expected transaction is delayed until a subsequent period, our results of operations for that period, and for any future periods in which revenue from such transaction would otherwise have been recognized, may be harmed.

We provide service level commitments under our customer contracts. If we fail to meet these contractual commitments, we could be obligated to provide credits for future service, or face contract termination with refunds of prepaid amounts related to unused subscriptions, which could harm our business, results of operations and financial condition.

Our customer agreements contain service level commitments, under which we guarantee specified availability of our platform. Any failure of or disruption to our infrastructure could make our platform unavailable to our customers. If we are unable to meet the stated service level commitments to our customers or suffer extended periods of unavailability of our platform, we may be contractually obligated to provide affected customers with service credits for future subscriptions, or customers could elect to terminate and receive refunds for prepaid amounts related to unused subscriptions. For example, in October 2016, a distributed denial-of-service attack against Dyn, a domain name service vendor we use (since acquired by Oracle), prevented many of our customers and their users in the United States from accessing our platform or applications authenticated by our platform and resulted in our failing to meet certain contracted uptime levels under our service level commitments and the issuance of service credits to some of our customers. Our revenue, other results of operations and financial condition could be harmed if we suffer unscheduled downtime that exceeds the service level commitments under our agreements with our customers, and any extended service outages could adversely affect our business and reputation as customers may elect not to renew and we could lose future sales.

Our growth depends, in part, on the success of our strategic relationships with third parties.

To grow our business, we anticipate that we will continue to depend on relationships with third parties, such as channel partners. Identifying partners, and negotiating and documenting relationships with them, requires significant time and resources. Our competitors may be effective in causing third parties to favor their products or services over subscriptions to our platform. In addition, acquisitions of such partners by our competitors could result in a decrease in the number of our current and potential customers, as these partners may no longer facilitate the adoption of our applications by potential customers. Further, some of our partners are or may become competitive with certain of our products and may elect to no longer integrate with our platform. If we are unsuccessful in establishing or maintaining our relationships with third parties, our ability to compete in the marketplace or to grow our revenue could be impaired, and our results of operations may suffer. Even if we are successful, we cannot ensure that these relationships will result in increased customer usage of our applications or increased revenue.

Because we generally recognize revenue from our subscriptions and support services over the term of the relevant service period, a decrease in sales during a reporting period may not be immediately reflected in our results of operations for that period.

We generally recognize revenue from subscriptions and related support services revenue ratably over the relevant service period. Net new revenue from new subscriptions, upsells and renewals entered into during a period can generally be expected to generate revenue for the duration of the service period. As a result, most of the revenue we report in each period is derived from the recognition of deferred revenue relating to subscriptions and support services contracts entered into during previous periods. Consequently, a decrease in new or renewed subscriptions in any single reporting period will have a limited impact on our revenue for that period. In addition, our ability to adjust our cost structure in the event of a decrease in new or renewed subscriptions may be limited.

Further, a decline in new subscriptions or renewals in a given period may not be fully reflected in our revenue for that period, but will negatively affect our revenue in future periods. Accordingly, the effect of significant downturns in sales and market acceptance of our services, and changes in our rate of renewals, may not be fully reflected in our results of operations until future periods. Our subscription model also makes it difficult for us to rapidly increase our revenue through additional sales in any period, as revenue from new customers is generally recognized over the applicable service period. Additionally, due to the complexity of certain of our customer contracts, the actual revenue recognition treatment required under Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, or ASC 606, will depend on contract-specific terms and may result in greater variability in revenue from period to period.

In addition, a decrease in new subscriptions or renewals in a reporting period may not have an immediate impact on billings for that period.

If we are unable to ensure that our products integrate or interoperate with a variety of operating systems and software applications that are developed by others, our platform may become less competitive and our results of operations may be harmed.

The number of people who access the Internet through mobile devices and access cloud-based software applications through mobile devices, including smartphones and handheld tablets or laptop computers, has increased significantly in the past several years and is expected to continue to increase. While we have created mobile applications and mobile versions of our products, if these mobile applications and products do not perform well, our business may suffer. We are also dependent on third-party application stores that may prevent us from timely updating our current products or uploading new products. In addition, our products interoperate with servers, mobile devices and software applications predominantly through the use of protocols, many of which are created and maintained by third parties. As a result, we depend on the interoperability of our products with such third-party services, mobile devices and mobile operating systems, as well as cloud-enabled hardware, software, networking, browsers, database technologies and protocols that we do not control. Any changes in such technologies that degrade the functionality of our products or give preferential treatment to competitive services could adversely affect adoption and usage of our platform. Also, we may not be successful in developing or maintaining relationships with key participants in the mobile industry or in developing products that operate effectively with a range of operating systems, networks, devices, browsers, protocols and standards. In addition, we may face different fraud, security and regulatory risks from transactions sent from mobile devices than we do from personal computers. If we are unable to effectively anticipate and manage these risks, or if it is difficult for our customers to access and use our platform, our business, results of operations and financial condition may be harmed.

Our success also depends on the willingness of third-party developers and technology providers to build applications and provide integrations that are complementary to our service. Without the development of these applications and integrations, both current and potential customers may not find our service sufficiently attractive, and our business, results of operations and financial condition could suffer.

Failure to effectively develop and expand our marketing and sales capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our products.

Our ability to increase our customer base and achieve broader market acceptance of our products will depend to a significant extent on our ability to expand our marketing and sales operations. We plan to continue expanding our direct sales force and engaging additional channel partners, both domestically and internationally. This expansion will require us to invest significant financial and other resources. Our business will be harmed if our efforts do not generate a corresponding increase in revenue. We may not achieve anticipated revenue growth from expanding our direct sales force if we are unable to hire and develop talented direct sales personnel, if our new direct sales personnel are unable to achieve desired productivity levels in a reasonable period of time or if we are unable to retain our existing direct sales personnel. We also may not achieve anticipated revenue growth from our channel partners if we are unable to attract and retain additional motivated channel partners, if any existing or future channel partners fail to successfully market, resell, implement or support our products for their customers, or if they represent multiple providers and devote greater resources to market, resell, implement and support the products and solutions of these other providers. For example, some of our channel partners also sell or provide integration and administration services for our competitors' products, and if such channel partners devote greater resources to marketing, reselling and supporting competing products, this could harm our business, results of operations and financial condition.

Our ability to introduce new products and features is dependent on adequate research and development resources and our ability to successfully complete acquisitions. If we do not adequately fund our research and development efforts or complete acquisitions successfully, we may not be able to compete effectively and our business and results of operations may be harmed.

To remain competitive, we must continue to develop new products, applications and enhancements to our existing platform. This is particularly true as we further expand and diversify our capabilities. Maintaining adequate research and development resources, such as the appropriate personnel and development technology, to meet the demands of the market is essential. If we elect not to or are unable to develop products internally, we may choose to expand into a certain market or strategy via an acquisition for which we could potentially pay too much or fail to successfully integrate into our operations. Further, many of our competitors expend a considerably greater amount of funds on their respective research and development programs, and those that do not may be acquired by larger companies that could allocate greater resources to our competitors' research and development programs. Our failure to maintain adequate research and development resources or to compete effectively with the research and development programs of our competitors would give an advantage to such competitors and may harm our business, results of operations and financial condition.

Interruptions or delays in the services provided by third-party data centers or internet service providers could impair the delivery of our platform and our business could suffer.

We host our platform using AWS data centers, a provider of cloud infrastructure services. All of our products use resources operated by us in these locations. Our operations depend on protecting the virtual cloud infrastructure hosted in AWS by maintaining its configuration, architecture and interconnection specifications, as well as the information stored in these virtual data centers and which third-party internet service providers transmit. Although we have disaster recovery plans that use multiple AWS locations, any incident affecting their infrastructure that may be caused by fire, flood, severe storm, earthquake, power loss, telecommunications failures, unauthorized intrusion, computer viruses and disabling devices, natural disasters, war, criminal act, military actions, terrorist attacks and other similar events beyond our control could negatively affect our platform. A prolonged AWS service disruption affecting our platform for any of the foregoing reasons could damage our reputation with current and potential customers, expose us to liability, cause us to lose customers or otherwise harm our business. We may also incur significant costs for using alternative equipment or taking other actions in preparation for, or in reaction to, events that damage the AWS services we use.

AWS enables us to order and reserve server capacity in varying amounts and sizes distributed across multiple regions. AWS provides us with computing and storage capacity pursuant to an agreement that continues until terminated by either party. AWS may terminate the agreement by providing 30 days prior written notice and may, in some cases, terminate the agreement immediately for cause upon notice.

Our platform is accessed by a large number of customers, often at the same time. As we continue to expand the number of our customers and products available to our customers, we may not be able to scale our technology to accommodate the increased capacity requirements, which may result in interruptions or delays in service. In addition, the failure of AWS data centers, or third-party internet service providers, or other third-party service providers whose services are integrated with our platform, to meet our capacity requirements could result in interruptions or delays in access to our platform or impede our ability to scale our operations. In the event that our AWS service agreements are terminated, or there is a lapse of service, interruption of internet service provider connectivity or damage to such facilities, we could experience interruptions in access to our platform as well as delays and additional expense in arranging new facilities and services.

Our success depends, in part, on the integrity and scalability of our systems and infrastructures. System interruption and the lack of integration, redundancy and scalability in these systems and infrastructures may harm our business, results of operations and financial condition.

Our success depends, in part, on our ability to maintain the integrity of our systems and infrastructure, including websites, information and related systems. System interruption and a lack of integration and redundancy in our information systems and infrastructure may adversely affect our ability to operate websites, process and fulfill transactions, respond to customer inquiries and generally maintain cost-efficient operations. We may experience occasional system interruptions that make some or all systems or data unavailable or prevent us from efficiently providing access to our platform. We also rely on third-party computer systems, broadband and other communications systems and service providers in connection with providing access to our platform generally. Any interruptions, outages or delays in our systems and infrastructure, our business and/or third parties, or deterioration in the performance of these systems and infrastructure, could impair our ability to provide access to our platform. Fire, flood, power loss, telecommunications failure, hurricanes, tornadoes, earthquakes, other natural disasters, acts of war or terrorism and similar events or disruptions may damage or interrupt computer, broadband or other communications systems and infrastructure at any time. Any of these events could cause system interruption, delays and loss of critical data, and could prevent us from providing access to our platform. While we have backup systems for certain aspects of these operations, disaster recovery planning by its nature cannot be sufficient for all eventualities. In addition, we may not have adequate insurance coverage to compensate for losses from a major interruption. If any of these events were to occur, it could harm our business, results of operations and financial condition.

We rely on software and services from other parties. Defects in or the loss of access to software or services from third parties could increase our costs and adversely affect the quality of our products.

We rely on technologies from third parties to operate critical functions of our business, including cloud infrastructure services and customer relationship management services. Our business would be disrupted if any of the third-party software or services we use, or functional equivalents, were unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms or prices. In each case, we would be required to either seek licenses to software or services from other parties and redesign our products to function with such software or services or develop substitutes ourselves, which would result in increased costs and could result in delays in our product launches and the release of new product offerings until equivalent technology can be identified, licensed or developed, and integrated into our products. Furthermore, we might be forced to limit the features available in our current or future products. These delays and feature limitations, if they occur, could harm our business, results of operations and financial condition.

Various factors may cause our product implementations to be delayed, inefficient or otherwise unsuccessful.

Our business depends upon the successful implementation of our products by our customers. Increasingly, we, as well as our customers, rely on our network of partners to deliver implementation services, and there may not be enough qualified implementation partners available to meet customer demand. Various factors may cause implementations to be delayed, inefficient or otherwise unsuccessful. For example, changes in the functional requirements of our customers, delays in timeline, or deviation from recommended best practices may occur during the course of an implementation project. As a result of these and other risks, we or our customers may incur significant implementation costs in connection with the purchase, implementation and enablement of our products. Some customer implementations may take longer than planned or fail to meet our customers' expectations, which may delay our ability to sell additional products or result in customers canceling or failing to renew their subscriptions before our products have been fully implemented. Unsuccessful, lengthy, or costly customer implementation and integration projects could result in claims from customers, harm to our reputation, and opportunities for competitors to displace our products, each of which could have an adverse effect on our business and results of operations.

Real or perceived errors, failures, vulnerabilities or bugs in our products, including deployment complexity, could harm our business and results of operations.

Errors, failures, vulnerabilities or bugs may occur in our products, especially when updates are deployed or new products are rolled out. Our platform is often used in connection with large-scale computing environments with different operating systems, system management software, equipment and networking configurations, which may cause errors or failures of products, or other aspects of the computing environment into which our products are deployed. In addition, deployment of our products into complicated, large-scale computing environments may expose errors, failures, vulnerabilities or bugs in our products. Any such errors, failures, vulnerabilities or bugs may not be found until after they are deployed to our customers. Real or perceived errors, failures, vulnerabilities or bugs in our products, or delays in or difficulties implementing our product releases, could result in negative publicity, loss of customer data, loss of or delay in market acceptance of our products, a decrease in customer satisfaction or adoption rates, loss of competitive position, or claims by customers for losses sustained by them, all of which could harm our business, results of operations and financial condition.

Future acquisitions, investments, partnerships or alliances could be difficult to identify and integrate, divert the attention of management personnel, disrupt our business, dilute stockholder value and harm our results of operations and financial condition.

We have in the past acquired, and we may in the future seek to acquire or invest in, businesses, products or technologies that we believe could complement or expand our current platform, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. In addition, we have limited experience in acquiring other businesses. If we acquire additional businesses, we may not be able to successfully integrate and retain the acquired personnel, integrate the acquired operations and technologies, adequately test and assimilate the internal control processes of the acquired business in accordance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or effectively manage the combined business following the acquisition.

We may not be able to find and identify desirable acquisition targets or we may not be successful in entering into an agreement with any particular target. Acquisitions could also result in dilutive issuances of equity securities, use of our available cash or the incurrence of debt, or in adverse tax consequences or unfavorable accounting treatment, which could harm our results of operations.

In addition, from time to time we invest in private growth stage companies for strategic reasons and to support key business initiatives, and we may not realize a return on these investments. All of our venture investments are subject to a risk of partial or total loss of investment capital.

Acquisitions and strategic transactions involve numerous risks, including:

- delays or reductions in customer purchases for both us and the acquired business;
- disruption of partner and customer relationships;
- potential loss of key employees of the acquired company;
- claims by and disputes with the acquired company's employees, customers, stockholders or third parties;
- unknown liabilities or risks associated with the acquired business, product or technology, such as contractual obligations, potential security vulnerabilities of the acquired company and its products and services, potential intellectual property infringement, costs arising from the acquired company's failure to comply with legal or regulatory requirements and litigation matters;
- acquired technologies or products may not comply with legal or regulatory requirements and may require us to make additional investments to make them compliant;
- acquired technologies or products may not be able to provide the same support service levels that we generally offer with our other products;
- they could be viewed unfavorably by our partners, our customers, our stockholders or securities analysts;
- unforeseen integration or other expenses; and
- future impairment of goodwill or other acquired intangible assets.

In addition, if an acquired business fails to meet our expectations, our business, results of operations and financial condition could suffer.

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

A portion of our sales are to government agencies, and we have made, and may continue to make, investments to support future sales opportunities in the government sector. Government demand for our products could be impacted by budgetary cycles, and there may be governmental certification requirements for our products. Further, we may be subject to audits and investigations regarding our government contracts, and violations could result in penalties and sanctions, including termination of the contract, refunding or forfeiting payments, fines and suspension or debarment from future government business. Selling to these entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that we will successfully complete a sale. Government entities often require contract terms that differ from our standard arrangements and impose compliance requirements that are complicated, increased attention to pricing practices, termination rights tied to funding availability, or are otherwise time consuming and expensive to satisfy. Government entities may also have statutory, contractual, or other legal rights to terminate contracts with our partners for convenience, for lack of funding, or due to a default, and any such termination may adversely impact our future results of operations. If we undertake to meet special standards or requirements and do not meet them, we could be subject to increased liability from our customers or regulators or termination rights. Even if we do meet them, the additional costs associated with providing our service to government entities could harm our margins. Moreover, changes in the underlying regulatory conditions that affect these types of customers could harm our ability to efficiently provide our service to them and to grow or maintain our customer base. Any of these risks related to contracting with government entities could adversely impact our future sales and results of operations, or make them more difficult to predict.

If we fail to enhance our brand cost-effectively, our ability to expand our customer base will be impaired and our business, results of operations and financial condition may suffer.

We believe that developing and maintaining awareness of our brand in a cost-effective manner is critical to achieving widespread acceptance of our existing and future products and is an important element in attracting new customers. Furthermore, we believe that the importance of brand recognition will increase as competition in our market increases. Successful promotion of our brand will depend largely on the effectiveness of our marketing efforts and on our ability to provide reliable and useful products at competitive prices. In the past, our efforts to build our brand have involved significant expenses. Brand promotion activities may not yield increased revenue, and even if they do, any increased revenue may not offset the expenses we incur in building our brand. If we fail to successfully promote and maintain our brand, or incur substantial expenses in an unsuccessful attempt to promote and maintain our brand, we may fail to attract new customers or retain our existing customers to the extent necessary to realize a sufficient return on our brand-building efforts, and our business, results of operations and financial condition could suffer.

If we fail to adequately protect our proprietary rights, our competitive position could be impaired and we may lose valuable assets, generate less revenue and incur costly litigation to protect our rights.

Our success is dependent, in part, upon protecting our proprietary information and technology. We rely on a combination of patents, copyrights, trademarks, service marks, trade secret laws and contractual restrictions to establish and protect our proprietary rights. However, the steps we take to protect our intellectual property may be inadequate. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. Despite our precautions, it may be possible for unauthorized third parties to copy our products and use information that we regard as proprietary to create products that compete with ours. Some license provisions protecting against unauthorized use, copying, transfer and disclosure of our products may be unenforceable under the laws of certain jurisdictions and foreign countries. Further, the laws of some countries do not protect proprietary rights to the same extent as the laws of the United States, and mechanisms for enforcement of intellectual property rights in some foreign countries may be inadequate. To the extent we expand our international activities, our exposure to unauthorized copying and use of our products and proprietary information may increase. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our technology and intellectual property.

We rely in part on trade secrets, proprietary know-how and other confidential information to maintain our competitive position. Although we enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with the parties with whom we have strategic relationships and business alliances, no assurance can be given that these agreements will be effective in controlling access to and distribution of our products and proprietary information. Further, these agreements do not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our products.

To protect our intellectual property rights, we may be required to spend significant resources to monitor and protect these rights. Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Such litigation could be costly, time consuming and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits attacking the validity and enforceability of our intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay further sales or the implementation of our products, impair the functionality of our products, delay introductions of new products, result in our substituting inferior or more costly technologies into our products, or injure our reputation. In addition, we may be required to license additional technology from third parties to develop and market new products, and we cannot ensure that we can license that technology on commercially reasonable terms or at all, and our inability to license this technology could harm our ability to compete.

Our results of operations may be harmed if we are subject to an infringement claim or a claim that results in a significant damage award.

There is considerable patent and other intellectual property development activity in our industry, and we expect that software companies will increasingly be subject to infringement claims as the number of products and competitors grows and the functionality of products in different industry segments overlaps. In addition, the patent portfolios of many of our competitors are larger than ours, and this disparity may increase the risk that our competitors may sue us for patent infringement and may limit our ability to counterclaim for patent infringement or settle through patent cross-licenses. Other companies have claimed in the past, and may claim in the future, that we infringe upon their intellectual property rights. A claim may also be made relating to technology that we acquire or license from third parties. Further, we may be unaware of the intellectual property rights of others that may cover some or all of our technology.

Any claim of infringement, regardless of its merit or our defenses, could:

- require costly litigation to resolve and/or the payment of substantial damages, ongoing royalty payments or other amounts to settle such disputes;
- require significant management time and attention;
- cause us to enter into unfavorable royalty or license agreements, if such arrangements are available at all;
- require us to discontinue the sale of some or all of our products, remove or reduce features or functionality of our products or comply with other unfavorable terms;
- require us to indemnify our customers or third-party service providers; and/or
- require us to expend additional development resources to redesign our products.

Any one or more of the above could harm our business, results of operations and financial condition.

We use open source software in our products, which could negatively affect our ability to offer our products and subject us to litigation or other actions.

We use open source software in our products and expect to use more open source software in the future. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate open source software into their products. However, the terms of many open source licenses have not been interpreted by U.S. 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. As a result, we could be subject to lawsuits by parties claiming ownership of what we believe to be open source software. Litigation could be costly for us to defend, have a negative effect on our results of operations and financial condition or require us to devote additional research and development resources to change our products. In addition, if we were to combine our proprietary software products with open source software in a certain manner, we could, under certain of the 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 with less development effort and time. If we inappropriately use open source software, or if the license terms for open source software that we use change, we may be required to re-engineer our products, incur additional costs, discontinue the sale of some or all of our products or take other remedial actions.

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 all of our use of open source software is in a manner that is consistent with our current policies and procedures, or will not subject us to liability.

We may face exposure to foreign currency exchange rate fluctuations.

Today, a vast majority of our customer contracts are denominated in U.S. dollars. Over time, however, an increasing portion of our international customer contracts may be denominated in local currencies. In addition, the majority of our international costs are denominated in local currencies. As a result, fluctuations in the value of the U.S. dollar and foreign currencies may affect our results of operations when translated into U.S. dollars. We do not currently engage in currency hedging activities to limit the risk of exchange rate fluctuations. However, in the future, we may use derivative instruments, such as foreign currency forward and option contracts, to hedge certain exposures to fluctuations in foreign currency exchange rates. The use of such hedging activities may not offset any or more than a portion of the adverse financial effects of unfavorable movements in foreign exchange rates over the limited time the hedges are in place. Moreover, the use of hedging instruments may introduce additional risks if we are unable to structure effective hedges with such instruments.

Indemnity provisions in various agreements potentially expose us to substantial liability for intellectual property infringement and other losses.

Our agreements with customers and other third parties may include indemnification or other provisions under which we agree to indemnify or otherwise be liable to them for losses suffered or incurred as a result of claims of intellectual property infringement, damages caused by us to property or persons, or other liabilities relating to or arising from the use of our platform or other acts or omissions. The term of these contractual provisions often survives termination or expiration of the applicable agreement. As we continue to grow, the possibility of infringement claims and other intellectual property rights claims against us may increase. For any intellectual property rights indemnification claim against us or our customers, we will incur significant legal expenses and may have to pay damages, settlement fees, license fees and/or stop using technology found to be in violation of the third party's rights. Large indemnity payments could harm our business, results of operations and financial condition. We may also have to seek a license for the infringing or allegedly infringing technology. Such license may not be available on reasonable terms, if at all, and may significantly increase our operating expenses or may require us to restrict our business activities and limit our ability to deliver certain products. As a result, we may also be required to develop alternative non-infringing technology, which could require significant effort and expense and/or cause us to alter our platform, which could negatively affect our business.

From time to time, customers require us to indemnify or otherwise be liable to them for breach of confidentiality, violation of applicable law or failure to implement adequate security measures with respect to their data stored, transmitted, or accessed using our platform. Although we normally contractually limit our liability with respect to such obligations, the existence of such a dispute may have adverse effects on our customer relationship and reputation and we may still incur substantial liability related to them.

Any assertions by a third party, whether or not successful, with respect to such indemnification obligations could subject us to costly and time-consuming litigation, expensive remediation and licenses, divert management attention and financial resources, harm our relationship with that customer and other current and prospective customers, reduce demand for our platform, and harm our brand, business, results of operations and financial condition.

We may face particular privacy, data security and data protection risks in Europe due to stringent data protection and privacy laws, including the European General Data Protection Regulation, and increased scrutiny over EU-U.S. data transfers.

On April 27, 2016 the European Union (EU) adopted the General Data Protection Regulation 2016/679, or GDPR, that took effect on May 25, 2018, replacing the data protection laws of each EU member state. The GDPR applies to any company established in the EU as well as to those outside the EU if they collect and use personal data in connection with the offering of goods or services to individuals in the EU or the monitoring of their behavior. The GDPR has enhanced data protection obligations for processors and controllers of personal data, including, for example, expanded disclosures about how personal data is to be used, limitations on retention of information, mandatory data breach notification requirements and onerous new obligations on services providers. Non-compliance with the GDPR can trigger fines of up to €20 million, or 4% of total worldwide annual revenue, whichever is higher. Given the breadth and depth of changes in data protection obligations, complying with its requirements has caused us to expend significant resources and such expenditures are likely to continue into the near future as we respond to new interpretations and enforcement actions following the effective date of the regulation and as we continue to negotiate data processing agreements with our customers and business partners. Separate EU laws and regulations (and member states' implementations of them) govern the protection of consumers and of electronic communications and these are also evolving. A draft of the new ePrivacy Regulation extends the strict opt-in marketing rules with limited exceptions to business-to-business communications, alters rules on third-party cookies, web beacons and similar technology and significantly increases penalties. We cannot yet determine the impact that such future laws, regulations, and standards may have on our business. Such laws and regulations are often subject to differing interpretations and may be inconsistent among jurisdictions. We may incur substantial expense in complying with the new obligations to be imposed by the GDPR and we may be required to make significant changes in our business operations and product and services development, all of which may adversely affect our revenues and our business overall.

In addition, the GDPR restricts transfers outside of the EU to third countries deemed to lack adequate privacy protections (such as the U.S.), unless an appropriate safeguard specified by the GDPR is implemented, such as the Standard Contractual Clauses (SCCs) approved by the European Commission and, until July 16, 2020, the Privacy Shield for EU-U.S. data transfers. On July 16, 2020, the European Court of Justice (ECJ) invalidated the EU-U.S. Privacy Shield, but it deemed that the SCCs are valid. However, the ECJ noted that transfers made pursuant to the SCCs and other alternative transfer mechanisms need to be analyzed on a case-by-case basis to ensure EU standards of data protection are met in the jurisdiction where the data importer is based, and there continue to be concerns about whether the SCCs and other mechanisms will face additional challenges. We rely on SCCs to transfer personal data contained within customers' data to the U.S. Until the remaining legal uncertainties regarding how to legally continue transfers pursuant to the SCCs and other mechanisms are settled, we will continue to face uncertainty as to whether our efforts to comply with our obligations under European privacy laws will be sufficient. We may experience hesitancy, reluctance, or refusal by European or multi-national customers to continue to use our service due to the potential risk exposure to such customers as a result of such developments and the current data protection obligations imposed on them by certain data protection authorities. Such customers may also view any alternative approaches to compliance as being too costly, too burdensome, too legally uncertain or otherwise objectionable and decide not to do business with us. This and other future developments regarding the flow of data across borders will increase the cost and complexity of delivering our products and services in some markets, potentially prohibiting us from providing our products and services in select jurisdictions, and may lead to governmental enforcement actions, litigation, fines and penalties or adverse publicity, which could have an adverse effect on our reputation and business.

We also continue to see jurisdictions imposing data localization laws, which require personal information, or certain subcategories of personal information to be stored in the jurisdiction of origin. These regulations may deter customers from using cloud-based services such as ours, and may inhibit our ability to expand into those markets or prohibit us from continuing to offer services in those markets without significant additional costs.

We and our customers are at risk of enforcement actions taken by certain EU data protection authorities until such point in time that we may be able to ensure that all transfers of personal data to us in the United States from the EU are conducted in compliance with all applicable regulatory obligations, the guidance of data protection authorities and evolving best practices. Any investigation or charges by EU data protection authorities could have a negative effect on our existing business and on our ability to attract and retain new customers. We may find it necessary to establish systems to maintain EU personal data within in the EU, which may involve substantial expense and may cause us to need to divert resources from other aspects of our business, all of which may adversely affect our business.

We function as a HIPAA Business Associate for certain of our customers and, as such, are subject to strict privacy and data security requirements. If we fail to comply with any of these requirements, we could be subject to significant liability, all of which can adversely affect our business as well as our ability to attract and retain new customers.

The Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, or HIPAA, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards directly applicable to business associates. We function as a business associate for certain of our customers that are HIPAA covered entities and service providers, and in that context we are regulated as a business associate for the purposes of HIPAA. The HIPAA-covered entities and service providers to which we provide services require us to enter into HIPAA-compliant business associate agreements with them. These agreements impose stringent data security obligations on us. If we are unable to comply with our obligations as a HIPAA business associate or under the terms of the business associate agreements we have executed, we could face substantial civil and even criminal liability as well as contractual liability under the applicable business associate agreement, all of which can have an adverse impact on our business and generate negative publicity, which, in turn, can have an adverse impact on our ability to attract and retain new customers. Modifying the already stringent penalty structure that was present under HIPAA prior to HITECH, HITECH created four new tiers of civil monetary penalties and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, many state laws govern the privacy and security of health information in certain circumstances, many of which differ from HIPAA and each other in significant ways and may not have the same effect.

In addition, additional guidance regarding HIPAA is expected to be issued in 2020 by the U.S. Department of Health & Human Services, and we are continuing to monitor whether such guidance may obligate us to change our practices. Significant changes to HIPAA, including interpretation and application of HIPAA, could negatively impact our business.

We are subject to anti-corruption, anti-bribery and similar laws, and non-compliance with such laws can subject us to criminal penalties or significant fines and harm our business and reputation.

We are subject to anti-corruption and anti-bribery and similar laws, such as the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, U.S. Travel Act, the USA PATRIOT Act, the U.K. Bribery Act 2010 and other anti-corruption, anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly and prohibit companies and their employees and agents from promising, authorizing, making or offering improper payments or other benefits to government officials and others in the private sector. As we increase our international sales and business, our risks under these laws may increase.

In addition, we use channel partners to sell our products and conduct business on our behalf abroad. We or such partners may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities and under certain circumstances we could be held liable for the corrupt or other illegal activities of such partners, and our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. We have implemented an anti-corruption compliance program but cannot ensure that all our employees and agents, as well as those companies to which we outsource certain of our business operations, will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible.

Noncompliance with the FCPA, other applicable anti-corruption laws, or anti-money laundering laws could subject us to investigations, whistleblower complaints, sanctions, settlements, prosecution, and other enforcement actions. Any violation of these laws could result in disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, adverse media coverage, loss of export privileges, severe criminal or civil sanctions, suspension or debarment from U.S. government contracts and other consequences, any of which could have a material adverse effect on our reputation, business, results of operations, and financial condition.

We are subject to governmental export controls and economic sanctions laws that could impair our ability to compete in international markets and subject us to liability if we are not in full compliance with applicable laws.

Our business activities are subject to various restrictions under U.S. export controls and trade and economic sanctions laws, including the U.S. Commerce Department’s Export Administration Regulations and economic and trade sanctions regulations maintained by the U.S. Treasury Department’s Office of Foreign Assets Control. The U.S. export control laws and U.S. economic sanctions laws include prohibitions on the sale or supply of certain products and services to U.S. embargoed or sanctioned countries, governments, persons and entities and also require authorization for the export of encryption items. In addition, various countries regulate the import of certain encryption technology, including through import and licensing requirements, and have enacted laws that could limit our ability to distribute our service or could limit our customers’ ability to implement our service in those countries. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to civil or criminal penalties, including the possible loss of export privileges and monetary penalties. Obtaining the necessary authorizations, including any required license, for a particular transaction may be time-consuming, is not guaranteed, and may result in the delay or loss of sales opportunities. Although we take precautions to prevent our products from being provided in violation of such laws, our products may have been in the past, and could in the future be, provided inadvertently in violation of such laws, despite the precautions we take. This could result in negative consequences to us, including government investigations, penalties and harm to our reputation.

We may not set optimal prices for our products.

In the past, we have at times adjusted our prices either for individual customers in connection with long-term agreements or for a particular product. We expect that we may need to change our pricing in future periods and potentially in response to COVID-19 pricing pressures. Further, as competitors introduce new products that compete with ours or reduce their prices, we may be unable to attract new customers or retain existing customers based on our historical pricing. As we expand internationally, we also must determine the appropriate price to enable us to compete effectively internationally. In addition, if our mix of products sold changes, then we may need to, or choose to, revise our pricing. As a result, we may be required or choose to reduce our prices or change our pricing model, which could harm our business, results of operations and financial condition.

Because our long-term success depends, in part, on our ability to expand the sales of our products to customers located outside of the United States, our business will be susceptible to risks associated with international operations.

We currently have sales personnel outside the United States and maintain offices outside the United States in the United Kingdom, the Netherlands, Sweden, France, Germany, Canada, Australia, Singapore and Japan, and we intend to expand our international operations.

In each of fiscal 2019 and 2020, our international revenue was 16% of our total revenue. Any international expansion efforts that we may undertake may not be successful. In addition, conducting international operations subjects us to new risks, some of which we have not generally faced in the United States. These risks include, among other things:

- health epidemics, such as the coronavirus outbreak (COVID-19), influenza and other highly communicable diseases or viruses;
- macroeconomic conditions and the economic impact of the COVID-19 pandemic;
- unexpected costs and errors in the localization of our products, including translation into foreign languages and adaptation for local practices and regulatory requirements;
- lack of familiarity and burdens of complying with foreign laws, legal standards, privacy standards, regulatory requirements, tariffs and other barriers;
- laws and business practices favoring local competitors or commercial parties;
- costs and liabilities related to compliance with the GDPR and disparate data privacy standards and enforcement;
- greater risk that our foreign employees or partners will fail to comply with U.S. and foreign laws;
- practical difficulties of enforcing intellectual property rights in countries with fluctuating laws and standards and reduced or varied protection for intellectual property rights in some countries;
- restrictive governmental actions focusing on cross-border trade, including taxes, trade laws, tariffs, import and export restrictions or quotas, barriers, sanctions, custom duties or other trade restrictions;
- unexpected changes in legal and regulatory requirements;
- difficulties in managing systems integrators and technology partners;
- differing technology standards;
- longer accounts receivable payment cycles and difficulties in collecting accounts receivable;
- difficulties in managing and staffing international operations and differing employer/employee relationships and local employment laws;
- political, economic and social instability, war, armed conflict or terrorist activities;
- fluctuations in exchange rates that may increase the volatility of our foreign-based revenue and expense; and
- potentially adverse tax consequences, including the complexities of foreign value added tax (or other tax) systems and restrictions on the repatriation of earnings.

Additionally, operating in international markets also requires significant management attention and financial resources. We cannot be certain that the investment and additional resources required in establishing operations in other countries will produce desired levels of revenue or profitability.

We have not engaged in currency hedging activities to limit risk of exchange rate fluctuations. Changes in exchange rates affect our costs and earnings, and may also affect the book value of our assets located outside the United States and the amount of our stockholders' equity.

We have limited experience in marketing, selling and supporting our platform abroad. Our limited experience in operating our business internationally increases the risk that any potential future expansion efforts that we may undertake will not be successful. If we invest substantial time and resources to expand our international operations and are unable to do so successfully and in a timely manner, our business and results of operations will suffer.

Our international operations may give rise to potentially adverse tax consequences.

We are expanding our international operations and staff to better support our growth into the international markets. Our corporate structure and associated transfer pricing policies anticipate future growth into the international markets. The amount of taxes we pay in different jurisdictions may depend on the application of the tax laws of the various jurisdictions, including the United States, to our international business activities, changes in tax rates, new or revised tax laws or interpretations of existing tax laws and policies and our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for pricing intercompany transactions, which are generally required to be computed on an arm's-length basis pursuant to intercompany arrangements or disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a challenge or disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations. Our financial statements could fail to reflect adequate reserves to cover such a contingency.

Changes in tax laws or regulations in the various tax jurisdictions we are subject to that are applied adversely to us or our customers could increase the costs of our products and harm our business.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time. Those enactments could harm our domestic and international business operations, and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. These events could require us or our customers to pay additional tax amounts on a prospective or retroactive basis, as well as require us or our customers to pay fines and/or penalties and interest for past amounts deemed to be due. If we raise our prices to offset the costs of these changes, existing and potential future customers may elect not to purchase our products in the future. Additionally, new, changed, modified or newly interpreted or applied tax laws could increase our customers' and our compliance, operating and other costs, as well as the costs of our products. Further, these events could decrease the capital we have available to operate our business. Any or all of these events could harm our business and financial performance.

As a multinational organization, we may be subject to taxation in several jurisdictions around the world with increasingly complex tax laws, the application of which can be uncertain. The amount of taxes we pay in these jurisdictions could increase substantially as a result of changes in the applicable tax principles, including increased tax rates, new tax laws or revised interpretations of existing tax laws and precedents, which could harm our liquidity and results of operations. In addition, the authorities in these jurisdictions could review our tax returns and impose additional tax, interest and penalties, and the authorities could claim that various withholding requirements apply to us or our subsidiaries or assert that benefits of tax treaties are not available to us or our subsidiaries, any of which could harm us and our results of operations.

Our business may be subject to additional obligations to collect and remit sales tax and other taxes, and we may be subject to tax liability for past sales. Any successful action by state, foreign or other authorities to collect additional or past sales tax could harm our business.

States and some local taxing jurisdictions have differing rules and regulations governing sales and use taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of sales taxes to our platform in various jurisdictions is unclear. It is possible that we could face sales tax audits and that our liability for these taxes could exceed our estimates as state tax authorities could still assert that we are obligated to collect additional amounts as taxes from our customers and remit those taxes to those authorities. We could also be subject to audits in states and international jurisdictions for which we have not accrued tax liabilities. A successful assertion that we should be collecting additional sales or other taxes on our service in jurisdictions where we have not historically done so and do not accrue for sales taxes could result in substantial tax liabilities for past sales, discourage customers from purchasing our products or otherwise harm our business, results of operations and financial condition.

We file sales tax returns in certain states within the United States as required by law and certain customer contracts for a portion of the products that we provide. We do not collect sales or other similar taxes in other states and many of such states do not apply sales or similar taxes to the vast majority of the products that we provide.

However, one or more states or foreign authorities could seek to impose additional sales, use or other tax collection and record-keeping obligations on us or may determine that such taxes should have, but have not been, paid by us. Liability for past taxes may also include substantial interest and penalty charges. Any successful action by state, foreign or other authorities to compel us to collect and remit sales tax, use tax or other taxes, either retroactively, prospectively or both, could harm our business, results of operations and financial condition.

We depend on our executive officers and other key employees, and the loss of one or more of these employees or an inability to attract and retain other highly skilled employees could harm our business.

Our success depends largely upon the continued services of our executive officers and other key employees. We rely on our leadership team in the areas of research and development, operations, security, marketing, sales, customer support, general and administrative functions, and on individual contributors in our research and development and operations functions. From time to time, there may be changes in our executive management team resulting from the hiring or departure of executives, which could disrupt our business. We do not have employment agreements with our executive officers or other key personnel that require them to continue to work for us for any specified period and they could terminate their employment with us at any time. The loss of one or more of our executive officers or key employees, and any failure to have in place and execute an effective succession plan for key executives, could harm our business. Changes in our executive management team may also cause disruptions in, and harm to, our business.

In addition, to execute our growth plan, we must attract and retain highly qualified personnel. Competition for these personnel in the San Francisco Bay Area, where our headquarters is located, and in other locations where we maintain offices, is intense, especially for engineers experienced in designing and developing software and SaaS applications and experienced sales professionals. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications, and may not be able to fill positions in the desired regions, or at all. Our efforts to attract new personnel may be compounded by intensified restriction on travel (including during the COVID-19 pandemic), changes to immigration policy or the availability of work visas. Many of the companies with which we compete for experienced personnel have greater resources than we have. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached their legal obligations, resulting in a diversion of our time and resources. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity awards declines, it may harm our ability to recruit and retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be harmed.

Our failure to raise additional capital or generate cash flows necessary to expand our operations and invest in new technologies in the future could reduce our ability to compete successfully and harm our results of operations.

We may need to raise additional funds, and we may not be able to obtain additional debt or equity financing on favorable terms, if at all. If we raise additional equity or convertible debt financing, our security holders may experience significant dilution of their ownership interests. If we engage in additional debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, force us to maintain specified liquidity or other ratios or restrict our ability to pay dividends or make acquisitions. If we need additional capital and cannot raise it on acceptable terms, or at all, we may not be able to, among other things:

- develop and enhance our products;
- continue to expand our product development, sales and marketing organizations;
- hire, train and retain employees;
- respond to competitive pressures or unanticipated working capital requirements; or
- pursue acquisition opportunities.

Our inability to do any of the foregoing could reduce our ability to compete successfully and harm our business, results of operations and financial condition.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight. If any of these new or improved controls and systems do not perform as expected, we may experience material weaknesses or significant deficiencies in our controls.

Our controls may become inadequate because of changes in conditions in our business. Further, weaknesses in our disclosure controls and internal control over financial reporting may be discovered in the future. Any failure to maintain effective controls could harm our results of operations or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to maintain effective internal control over financial reporting also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we are required to include in our periodic reports that are filed with the Securities and Exchange Commission (SEC). Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our Class A common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NASDAQ. We are required to provide an annual management report on the effectiveness of our internal control over financial reporting.

Our independent registered public accounting firm is required to formally attest to the effectiveness of our internal control over financial reporting annually. Our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed, or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting could harm our business and results of operations and could cause a decline in the price of our Class A common stock.

Changes in existing financial accounting standards or practices, or taxation rules or practices, may harm our results of operations.

Changes in existing accounting or taxation rules or practices, new accounting pronouncements or taxation rules, or varying interpretations of current accounting pronouncements or taxation practice could harm our results of operations or the manner in which we conduct our business. Further, such changes could potentially affect our reporting of transactions completed before such changes are effective.

GAAP is subject to interpretation by the Financial Accounting Standards Board, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results, and could affect the reporting of transactions completed before the announcement of a change. Adoption of such new standards and any difficulties in implementation of changes in accounting principles, including the ability to modify our accounting systems, could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors’ confidence in us.

If our estimates or judgments relating to our critical accounting policies prove to be incorrect, our results of operations could be adversely affected.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in our condensed consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities and equity, and the amount of revenue and expenses that are not readily apparent from other sources. Significant assumptions and estimates used in preparing our condensed consolidated financial statements include, but are not limited to those related to revenue recognition, period of benefit for deferred commissions, incremental borrowing rates for operating leases, effective interest rates for convertible notes, valuation of deferred income taxes, business combination and valuation of goodwill and purchased intangible assets. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the trading price of our Class A common stock.

Catastrophic events may disrupt our business.

Natural disasters or other catastrophic events may cause damage or disruption to our operations, international commerce and the global economy, and thus could harm our business. We have a large employee presence in San Francisco, California and the west coast of the United States contains active earthquake and wildfire zones which have the potential to disrupt our business. For example, in October 2019, PG&E shut off power to certain cities in the San Francisco Bay Area in order to reduce the risk of wildfires and this resulted in many of our employees being unable to work remotely. In the event of a major earthquake, hurricane or catastrophic event such as fire, power loss, telecommunications failure, vandalism, cyber-attack, war, terrorist attack or health epidemic (including COVID-19), we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our application development, lengthy interruptions in our products, breaches of data security and loss of critical data, all of which could harm our business, results of operations and financial condition. In addition, the insurance we maintain may be insufficient to cover our losses resulting from disasters, cyber-attacks or other business interruptions, and any incidents may result in loss of, or increased costs of, such insurance.

We may be subject to liability claims if we breach our contracts and our insurance may be inadequate to cover our losses.

We are subject to numerous obligations in our contracts with our customers and partners. Despite the procedures, systems and internal controls we have implemented to comply with our contracts, we may breach these commitments, whether through a weakness in these procedures, systems and internal controls, negligence or the willful act of an employee or contractor. Our insurance policies, including our errors and omissions insurance, may be inadequate to compensate us for the potentially significant losses that may result from claims arising from breaches of our contracts, disruptions in our service, including those caused by cybersecurity incidents, failures or disruptions to our infrastructure, catastrophic events and disasters or otherwise. In addition, such insurance may not be available to us in the future on economically reasonable terms, or at all. Further, our insurance may not cover all claims made against us and defending a suit, regardless of its merit, could be costly and divert management’s attention.

Exposure to political developments in the United Kingdom, including the exit of the United Kingdom from the European Union, could harm us.

On June 23, 2016, a referendum was held on the United Kingdom’s membership in the European Union, the outcome of which was a vote in favor of leaving the European Union. The withdrawal was extended several times due to deadlocks in negotiations. On January 31, 2020, the United Kingdom withdrew from the European Union and entered into a transition period to, among other things, negotiate an agreement with the European Union governing the future relationship between the European Union and the United Kingdom. The referendum and subsequent withdrawal of the United Kingdom from the European Union has created significant political and economic uncertainty about the future relationship between the United Kingdom and the European Union.

The referendum, withdrawal and transition period mean that the long-term nature of the United Kingdom’s relationship with the European Union is unclear. The political and economic instability created by the United Kingdom’s vote to leave the European Union has caused and may continue to cause significant volatility in global financial markets and the value of the British Pound or other currencies, including the Euro. In addition, this uncertainty may cause some of our customers or potential customers to curtail or delay spending, and any exit from the European Union may result in new regulatory and cost challenges to our United Kingdom and global operations. The outcome of the referendum has also created uncertainty with regard to the regulation of data protection, immigration and taxation, among other issues, in the United Kingdom. In particular, it is unclear how the United Kingdom's vote to leave the European Union will affect the United Kingdom's enactment of the European General Data Protection Regulation, and how data transfers to and from the United Kingdom will be regulated. Depending on the terms reached regarding any exit from the European Union, it is possible that there may be adverse practical or operational implications on our business.

Our ability to use our net operating loss carry-forwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an “ownership change,” generally defined as a greater than 50% change (by value) in its equity ownership over a three year period, the corporation’s ability to use its pre-change net operating loss carry-forwards and other pre-change tax attributes, such as research tax credits and distributed interest deduction carryover, to offset its post-change income may be limited. We have experienced ownership changes in the past and any such ownership change in the future could result in increased future tax liability. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carry-forwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us.

On December 22, 2017, the U.S. government enacted new tax legislation commonly referred to as the Tax Cuts and Jobs Act (the Tax Act). Among other provisions, the Tax Act imposed limitations on the use of certain net operating losses and allows such losses to be carried forward indefinitely. Additionally, the Tax Act further limits annual interest deductibility which the Company has considered in its determination of deferred taxes.

On March 27, 2020, the U.S. government enacted the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") which included temporary relief from the net operating loss limitations imposed by the Tax Act for tax years beginning after December 31, 2017 and before January 1, 2021, and made certain technical corrections to applying the net operating loss utilization limitations for tax years beginning after January 1, 2021.

Our ability to use our net operating losses is conditioned upon generating future U.S. federal taxable income. Since we do not know whether or when we will generate the U.S. federal taxable income necessary to use our remaining net operating losses, these net operating loss carryforwards generated prior to our tax year ended January 31, 2018 could expire unused.

Risks Related to Ownership of Our Class A Common Stock

The stock price of our Class A common stock may be volatile or may decline.

Prior to our initial public offering, or IPO, there was no public market for shares of our Class A common stock. The market prices of the securities of other newly public companies have historically been highly volatile, and our stock price has been volatile since our IPO. The market price of our Class A common stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including, but not limited to:

- overall performance of the equity markets and/or publicly-listed technology companies;
- actual or anticipated fluctuations in our revenue or other financial or operating metrics;
- changes in the financial projections we provide to the public or our failure to meet these projections;
- failure of securities analysts to initiate or maintain coverage of us, changes in financial estimates and/or recommendations by any securities analysts who follow our company;
- our failure to meet the estimates or the expectations of securities analysts or investors;
- recruitment or departure of key personnel;
- significant security breaches, technical difficulties or interruptions of our service;
- the economy as a whole and market conditions in our industry;
- rumors and market speculation involving us or other companies in our industry;
- announcements by us or our competitors of significant innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- lawsuits threatened or filed against us;
- other events or factors, including those resulting from war, incidents of terrorism, or responses to these events; and
- sales of additional shares of our Class A common stock by us, our directors, our officers or our stockholders.

In addition, stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. Stock prices of many companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business, and harm our business.

The dual class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of our IPO, including our directors, executive officers, and their affiliates, who held in the aggregate 49.8% of the voting power of our capital stock as of July 31, 2020. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.

Our Class B common stock has ten votes per share, and our Class A common stock has one vote per share. As of July 31, 2020, our directors, executive officers, and their affiliates, held in the aggregate 49.8% the voting power of our capital stock. Because of the ten-to-one voting ratio between our Class B and Class A common stock, the holders of our Class B common stock collectively could continue to control nearly a majority of the combined voting power of our common stock and be able to effectively control all matters submitted to our stockholders for approval until April 12, 2027, the date that is the ten year anniversary of the closing of our IPO. This concentrated control may limit or preclude your ability to influence corporate matters for the foreseeable future, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that you may feel are in your best interest as one of our stockholders.

Future transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions, such as certain transfers effected for estate planning purposes. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who have retained their shares.

Sales of a substantial number of shares of our Class A common stock in the public markets, or the perception that sales might occur, could cause the market price of our Class A common stock to decline.

Sales of a substantial number of shares of our Class A common stock into the public market, particularly sales by our directors, executive officers, and principal stockholders, or the perception that these sales might occur, could cause the market price of our Class A common stock to decline.

In addition, we have options outstanding that, if fully exercised, would result in the issuance of shares of our Class A and Class B common stock. We also have restricted stock units, or RSUs, outstanding that, if vested and settled, would result in the issuance of shares of Class A common stock. All of the shares of Class A and Class B common stock issuable upon the exercise of stock options and vesting of RSUs and the shares reserved for future issuance under our equity incentive plans, are registered for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market upon issuance, subject to applicable vesting requirements.

Furthermore, a substantial number of shares of our Class A common stock is reserved for issuance upon the exercise of the Notes (as defined below) and the warrants (as defined below) issued at the time of the issuance of the 2023 Notes (as defined below). If we elect to satisfy our conversion obligation on the Notes solely in shares of our Class A common stock upon conversion of the notes, we will be required to deliver the shares of our Class A common stock, together with cash for any fractional share, on the second business day following the relevant conversion date.

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

We are subject to the reporting requirements of the Exchange Act, the listing standards of NASDAQ and other applicable securities rules and regulations. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting, and financial compliance costs, make some activities more difficult, time-consuming, and costly, and place significant strain on our personnel, systems, and resources. For example, the Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and results of operations. As a result of the complexity involved in complying with the rules and regulations applicable to public companies, our management's attention may be diverted from other business concerns, which could harm our business, results of operations and financial condition. Although we have already hired additional employees to assist us in complying with these requirements, we may need to hire more employees in the future or engage outside consultants, which will increase our operating expenses.

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

Being a public company under these new rules and regulations has made it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

As a result of disclosure of information in filings required of a public company, our business and financial condition is visible, which may result in an increased risk of threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and results of operations could be harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and harm our business, results of operations and financial condition.

If securities or industry analysts do not publish or cease publishing research, or publish inaccurate or unfavorable research, about our business, the price of our Class A common stock and trading volume could decline.

The trading market for our Class A common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If industry analysts do not publish or cease publishing research on our company, the trading price for our Class A common stock would be negatively affected. If one or more of the analysts who cover us downgrade our Class A common stock or publish inaccurate or unfavorable research about our business, our Class A common stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us on a regular basis, demand for our Class A common stock could decrease, which might cause our Class A common stock price and trading volume to decline.

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

We have never declared or paid any cash dividends on our common stock and do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the operation of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

Provisions in our charter documents and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current board of directors, and limit the market price of our Class A 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 of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- provide that our board of directors is classified into three classes of directors with staggered three-year terms;
- permit the board of directors to establish the number of directors and fill any vacancies and newly-created directorships;
- require super-majority voting to amend some provisions in our amended and restated certificate of incorporation and amended and restated bylaws;

- authorize the issuance of “blank check” preferred stock that our board of directors could use to implement a stockholder rights plan;
- provide that only the Chairperson of our board of directors, our Chief Executive Officer, or a majority of our board of directors are authorized to call a special meeting of stockholders;
- provide for a dual class common stock structure in which holders of our Class B common stock have the ability to effectively control the outcome of matters requiring stockholder approval, even if they own significantly less than a majority of the outstanding shares of our Class A and Class B common stock, including the election of directors and significant corporate transactions, such as a merger or other sale of our company or its assets;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- provide that the board of directors is expressly authorized to make, alter or repeal our bylaws; and
- advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon by stockholders at annual stockholder meetings.

Moreover, Section 203 of the Delaware General Corporation Law may discourage, delay, or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations, and other transactions between us and holders of 15% or more of our common stock.

Our amended and restated bylaws designate a state or federal court located within the State of Delaware as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit stockholders’ ability to obtain a favorable judicial forum for disputes with us.

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware will be the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws; or
- or any action asserting a claim against us that is governed by the internal affairs doctrine.

This choice of forum provision may limit a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations and financial condition.

Risks Related to our Outstanding Convertible Notes

Servicing our debt may require a significant amount of cash. We may not have sufficient cash flow from our business to pay our indebtedness.

In February 2018, we issued the 2023 convertible senior notes in a private offering (2023 Notes), in September 2019, we issued the 2025 convertible senior notes in a private offering (2025 Notes) and in June 2020 we issued the 2026 convertible senior notes in a private offering (2026 Notes, and together with the 2023 Notes and 2025 Notes, the Notes). Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the Notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional debt financing or equity capital on terms that may be onerous or highly dilutive. Our ability to refinance any future indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations. In addition, any of our future debt agreements may contain restrictive covenants that may prohibit us from adopting any of these alternatives. Our failure to comply with these covenants could result in an event of default which, if not cured or waived, could result in the acceleration of our debt.

We may not have the ability to raise the funds necessary for cash settlement upon conversion of the Notes or to repurchase the Notes for cash upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion of the Notes or to repurchase the Notes.

Holders of the Notes have the right to require us to repurchase their Notes upon the occurrence of a fundamental change (as defined in the Indentures governing their respective Notes) at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest, if any. Upon conversion of the Notes, unless we elect to deliver solely shares of our Class A common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Notes being converted. We may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of Notes surrendered or Notes being converted. In addition, our ability to repurchase the Notes or to pay cash upon conversions of the Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase Notes at a time when the repurchase is required by the indenture governing such notes or to pay any cash payable on future conversions of the Notes as required by such indenture would constitute a default under such indenture. A default under the indenture governing the Notes or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment 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 the Notes or make cash payments upon conversions.

In addition, our indebtedness, combined with our other financial obligations and contractual commitments, could have other important consequences. For example, it could:

- make us more vulnerable to adverse changes in general U.S. and worldwide economic, industry and competitive conditions and adverse changes in government regulation;
- limit our flexibility in planning for, or reacting to, changes in our business and our industry;
- place us at a disadvantage compared to our competitors who have less debt;
- limit our ability to borrow additional amounts to fund acquisitions, for working capital and for other general corporate purposes; and
- make an acquisition of our company less attractive or more difficult.

Any of these factors could harm our business, results of operations and financial condition. In addition, if we incur additional indebtedness, the risks related to our business and our ability to service or repay our indebtedness would increase.

The conditional conversion feature of the Notes, if triggered, may adversely affect our financial condition and results of operations.

In the event the conditional conversion feature of the Notes is triggered, holders of the Notes will be entitled to convert the Notes, as applicable, at any time during specified periods at their option. If one or more holders elect to convert their Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. As disclosed in Note 9 to our condensed consolidated financial statements, the conditional conversion feature of the 2023 Notes was triggered as of July 31, 2020, and the 2023 Notes are currently convertible at the option of the holders, in whole or in part, between August 1, 2020 and October 31, 2020. Whether the 2023 Notes will be convertible following such fiscal quarter will depend on the continued satisfaction of this condition or another conversion condition in the future. From the date of their respective issuances through July 31, 2020, the conditions allowing holders of the 2025 Notes and the 2026 Notes, respectively, to convert were not met.

In addition, even if holders do not elect to convert their Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the notes as a current rather than long-term liability, which would result in a material reduction of our net working capital. The 2023 Notes were classified as current liabilities on the condensed consolidated balance sheet as of July 31, 2020.

Transactions relating to our Notes may affect the value of our Class A common stock.

The conversion of some or all of the Notes would dilute the ownership interests of existing stockholders to the extent we satisfy our conversion obligation by delivering shares of our Class A common stock upon any conversion of such Notes. Our Notes may become in the future convertible at the option of their holders under certain circumstances. If holders of our Notes elect to convert their notes, we may settle our conversion obligation by delivering to them a significant number of shares of our Class A common stock, which would cause dilution to our existing stockholders.

In addition, in connection with the issuance of the 2023 Notes, we entered into convertible note hedges (Note Hedges) with certain financial institutions (the 2023 Notes Option Counterparties). We also entered into warrant transactions with the 2023 Option Counterparties pursuant to which we sold warrants for the purchase of our Class A common stock (Warrants). The Note Hedges are expected generally to reduce the potential dilution to our Class A common stock upon any conversion or settlement of the 2023 Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted 2023 Notes, as the case may be. The warrant transactions could separately have a dilutive effect to the extent that the market price per share of our Class A common stock exceeds the strike price of any warrants unless, subject to the terms of the warrant transactions, we elect to cash settle the warrants. In September 2019 and June 2020, and in connection with the first partial repurchase of 2023 Notes (First Partial Repurchase) and the second partial repurchase of 2023 Notes (Second Partial Repurchase), the Company terminated Note Hedges corresponding to approximately 4.6 million shares and 1.4 million shares, respectively. As of July 31, 2020, Note Hedges giving the Company the option to purchase approximately 1.0 million shares (subject to adjustment) remained outstanding. In September 2019 and June 2020, and in connection with the First Partial Repurchase of 2023 Notes and the Second Partial Repurchase of 2023 Notes, the Company terminated warrants corresponding to approximately 4.6 million shares and 1.4 million shares, respectively. As of July 31, 2020, warrants to acquire up to approximately 1.0 million shares (subject to adjustment) remained outstanding.

In addition, in connection with the issuance of the 2025 Notes and 2026 Notes, we entered into capped call transactions (Capped Calls) with certain financial institutions (the 2025 Notes and 2026 Notes Capped Call Counterparties and together with the 2023 Notes Option Counterparties, the Option Counterparties). The Capped Calls are generally expected to reduce potential dilution to our Class A common stock upon any conversion or settlement of the 2025 Notes and 2026 Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted 2025 Notes and 2026 Notes, as the case may be, with such reduction and/or offset subject to a cap.

From time to time, the Option Counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivative transactions with respect to our Class A common stock and/or purchasing or selling our Class A common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes. This activity could cause a decrease in the market price of our Class A common stock.

The accounting method for convertible debt securities that may be settled in cash, such as the Notes, could have a material effect on our reported financial results.

Under Financial Accounting Standards Board Accounting Standards Codification 470-20, *Debt with Conversion and Other Options*, which we refer to as ASC 470-20, an entity must separately account for the liability and equity components of convertible debt instruments (such as the Notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer’s economic interest cost. ASC 470-20 requires the value of the conversion options of the Notes, representing the equity component, to be recorded as additional paid-in capital within stockholders’ equity in our condensed consolidated balance sheet and as a discount to the Notes, which reduces their initial carrying value. The carrying value of the Notes, net of the applicable discount recorded, will be accreted up to the principal amount of the Notes, as the case may be, from the issuance date until maturity, which will result in non-cash charges to interest expense in our condensed consolidated statement of operations. Accordingly, we will report lower net income or higher net loss in our financial results because ASC 470-20 requires interest to include both the current period’s accretion of the debt discount and the instrument’s coupon interest, which could adversely affect our reported or future financial results, the trading price of our Class A common stock and the respective trading price of the Notes.

In addition, under certain circumstances, convertible debt instruments (such as the Notes) that may be settled entirely or partly in cash are currently permitted to be accounted for using the treasury stock method, the effect of which is that the shares issuable upon conversion of the Notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the Notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of Class A common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued.

Accounting standards in the future will not permit the use of the treasury stock method. As disclosed in Note 2 to our condensed consolidated financial statements, the Financial Accounting Standards Board recently issued an accounting standards update to amend these accounting standards to eliminate the treasury stock method for convertible instruments and instead require application of the “if-converted” method which would be effective for us beginning in fiscal 2023, but may be voluntarily adopted earlier. We currently already apply the “if-converted” method for calculating any potential dilutive effect of the conversion options embedded in the Notes on diluted net income per share, which assumes that all of the Notes were converted solely into shares of Class A common stock at the beginning of the reporting period or the issuance date of the corresponding Notes, unless the result would be anti-dilutive. The standards update also eliminates the liability and equity component separation model for convertible debt instruments with a cash conversion feature, which is expected to reduce reported interest expense, increase reported net income, and result in a reclass of certain balance sheet amounts from stockholders' equity to liabilities as it relates to our Notes.

Item 6. Exhibits.

We have filed the exhibits listed on the accompanying Exhibit Index, which is incorporated herein by reference.

Index to Exhibits

Exhibit Number	Exhibit Description	Incorporated by Reference from Form
4.1	Indenture, dated as of June 12, 2020, between Okta, Inc., and Wilmington Trust, National Association, as trustee.	Exhibit 4.1 to Form 8-K filed June 15, 2020
4.2	Form of 0.375% Convertible Senior Notes due 2026 (included in Exhibit 4.1).	Exhibit 4.2 to Form 8-K filed June 15, 2020
10.1	Form of Capped Call Transaction Confirmation.	Exhibit 10.1 to Form 8-K filed June 15, 2020
31.1	Certification of the Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith
31.2	Certification of the Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith
32.1*	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its IBRL tags are embedded within the Inline XBRL document.	Filed herewith
101.SCH	Inline XBRL Taxonomy Extension Schema Document	Filed herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	Filed herewith
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	Filed herewith
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101.*)	Filed herewith

* The certifications furnished in Exhibit 32.1 hereto are deemed to accompany this Quarterly Report on Form 10-Q and will not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference.

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.

Okta, Inc.

August 27, 2020	/s/ William E. Losch
	William E. Losch
	Chief Financial Officer
	(Principal Financial Officer)

Exhibit 31.1

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Todd McKinnon, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Okta, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a—15(e) and 15d—15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 27, 2020

/s/ Todd McKinnon

Todd McKinnon
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, William E. Losch, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Okta, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a—15(e) and 15d—15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 27, 2020

/s/ William E. Losch

William E. Losch
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Todd McKinnon, Chief Executive Officer of Okta, Inc. (the “Company”), and William E. Losch, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company’s Quarterly Report on Form 10-Q for the quarterly period ended July 31, 2020, to which this Certification is attached as Exhibit 32.1 (the “Periodic Report”), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 27, 2020

/s/ Todd McKinnon

Todd McKinnon
Chief Executive Officer
(Principal Executive Officer)

/s/ William E. Losch

William E. Losch
Chief Financial Officer
(Principal Financial Officer)