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 October 31, 2019
OR

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

For the transition period from to

Commission File Number: 001-38044

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** **California** **94105** (Address of Principal executive offices)	(I.R.S. Employer Identification Number)

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 November 30, 2019, the number of shares of registrant's Class A common stock outstanding was 112,408,775 and the number of shares of the registrant's Class B common stock outstanding was 8,795,515.

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 and plans and market trends, opportunities and positioning. 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;
- 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)

(unaudited)

	October 31, 2019	January 31, 2019 As Adjusted [1]
Assets		
Current assets:		
Cash and cash equivalents	$ 1,039,626	$ 298,394
Short-term investments	326,629	265,374
Accounts receivable, net of allowances of $1,146 and $2,098	101,778	91,926
Deferred commissions	29,544	24,185
Prepaid expenses and other current assets	29,023	28,237
Total current assets	1,526,600	708,116
Property and equipment, net	51,730	52,921
Operating lease right-of-use assets	126,746	121,389
Deferred commissions, noncurrent	65,466	54,812
Intangible assets, net	33,826	13,897
Goodwill	47,964	18,089
Other assets	18,445	15,089
Total assets	$ 1,870,777	$ 984,313
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 4,924	$ 2,431
Accrued expenses and other current liabilities	33,288	33,653
Accrued compensation	34,212	19,770
2023 Convertible senior notes, net	99,227	271,628
Deferred revenue	306,743	245,622
Total current liabilities	478,394	573,104
2025 Convertible senior notes, net	828,237	—
Operating lease liabilities, noncurrent	153,960	147,046
Deferred revenue, noncurrent	7,013	8,768
Other liabilities, noncurrent	4,779	3,018
Total liabilities	1,472,383	731,936
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 October 31, 2019 and January 31, 2019.	—	—
Class A Common stock, par value $0.0001 per share; 1,000,000 shares authorized as of October 31, 2019 and January 31, 2019; 112,251 and 101,093 shares issued and outstanding as of October 31, 2019 and January 31, 2019, respectively.	11	10
Class B Common stock, par value $0.0001 per share; 120,000 shares authorized as of October 31, 2019 and January 31, 2019; 8,880 and 11,059 shares issued and outstanding as of October 31, 2019 and January 31, 2019, respectively.	1	1
Additional paid-in capital	1,048,899	744,896
Accumulated other comprehensive income (loss)	135	(319)
Accumulated deficit	(650,652)	(492,211)
Total stockholders’ equity	398,394	252,377
Total liabilities and stockholders' equity	$ 1,870,777	$ 984,313

(1) Adjusted for adoption of ASC 842, Leases. See Note 2.

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

(unaudited)

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	**2018**	**2019**	**2018**
Revenue:				
Subscription	$ 144,517	$ 97,698	$ 394,174	$ 262,393
Professional services and other	8,520	7,878	24,566	21,390
Total revenue	153,037	105,576	418,740	283,783
Cost of revenue:				
Subscription	30,124	20,265	82,581	55,808
Professional services and other	10,700	9,435	32,118	26,227
Total cost of revenue	40,824	29,700	114,699	82,035
Gross profit	112,213	75,876	304,041	201,748
Operating expenses:				
Research and development	41,832	27,596	115,909	72,354
Sales and marketing	87,224	56,911	247,721	165,408
General and administrative	28,887	19,848	81,540	55,873
Total operating expenses	157,943	104,355	445,170	293,635
Operating loss	(45,730)	(28,479)	(141,129)	(91,887)
Interest expense	(7,826)	(4,118)	(16,371)	(10,893)
Other income, net	4,982	2,413	11,346	6,211
Loss on early extinguishment of debt	(14,572)	—	(14,572)	—
Interest expense and other income, net	(17,416)	(1,705)	(19,597)	(4,682)
Loss before provision for (benefit from) income taxes	(63,146)	(30,184)	(160,726)	(96,569)
Provision for (benefit from) income taxes	349	(667)	(2,285)	(1,883)
Net loss	$ (63,495)	$ (29,517)	$ (158,441)	$ (94,686)
Net loss per share, basic and diluted	$ (0.53)	$ (0.27)	$ (1.37)	$ (0.89)
Weighted-average shares used to compute net loss per share, basic and diluted	118,976	108,776	115,598	106,587

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(In thousands)

(unaudited)

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	**2018**	**2019**	**2018**
Net loss	$ (63,495)	$ (29,517)	$ (158,441)	$ (94,686)
Other comprehensive income (loss):				
Net change in unrealized gains or losses on available-for-sale securities	227	4	616	(44)
Foreign currency translation adjustments	1,561	(442)	(162)	(1,265)
Other comprehensive income (loss)	1,788	(438)	454	(1,309)
Comprehensive loss	$ (61,707)	$ (29,955)	$ (157,987)	$ (95,995)

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands)

(unaudited)

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	**2018**	**2019**	**2018**
Common stock and additional paid-in capital:				
Balance, beginning of period	$ 839,535	$ 677,508	$ 744,907	$ 565,663
Issuance of common stock upon exercise of stock options and other activity, net	9,430	7,646	46,911	36,800
Issuance of common stock for settlement of RSUs	—	—	2,809	—
Stock-based compensation	36,180	21,667	90,518	54,327
Equity component of convertible senior notes, net of issuance costs	217,347	—	217,347	77,631
Equity component of early extinguishment of 2023 convertible senior notes	(26,713)	—	(26,713)	—
Purchases of hedges related to 2023 convertible senior notes	—	—	—	(80,040)
Proceeds from hedges related to 2023 convertible senior notes	405,851	—	405,851	—
Issuance of warrants related to 2023 convertible senior notes	—	—	—	52,440
Payments for warrants related to 2023 convertible senior notes	(358,622)	—	(358,622)	—
Purchases of capped calls related to 2025 convertible senior notes	(74,094)	—	(74,094)	—
Other, net	(3)	—	(3)	—
Balance, end of period	1,048,911	706,821	1,048,911	706,821
Accumulated deficit:				
Balance, beginning of period	(587,157)	(431,883)	(492,211)	(366,714)
Net loss	(63,495)	(29,517)	(158,441)	(94,686)
Balance, end of period	(650,652)	(461,400)	(650,652)	(461,400)
Accumulated other comprehensive income (loss):				
Balance, beginning of period	(1,653)	(480)	(319)	391
Other comprehensive income (loss)	1,788	(438)	454	(1,309)
Balance, end of period	135	(918)	135	(918)
Total stockholder's equity	$ 398,394	$ 244,503	$ 398,394	$ 244,503

See Notes to Condensed Consolidated Financial Statements.

OKTA, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

(unaudited)

	Nine Months Ended October 31,	
	2019	2018 As Adjusted [(1)]
Cash flows from operating activities:		
Net loss	$ (158,441)	$ (94,686)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Stock-based compensation	89,691	53,899
Depreciation, amortization and accretion	12,336	5,824
Amortization of debt discount and issuance costs	15,653	10,315
Amortization of deferred commissions	20,541	14,963
Deferred income taxes	(3,069)	(2,269)
Non-cash charitable contributions	1,162	1,008
Loss on early extinguishment of debt	14,572	—
Other	84	153
Changes in operating assets and liabilities:		
Accounts receivable	(9,393)	(17,539)
Deferred commissions	(36,641)	(25,907)
Prepaid expenses and other assets	(1,518)	(2,822)
Operating lease right-of-use assets	7,851	12,209
Accounts payable	1,962	(334)
Accrued compensation	17,352	7,973
Accrued expenses and other liabilities	4,017	1,859
Operating lease liabilities	(4,128)	(5,614)
Deferred revenue	58,737	46,036
Net cash provided by operating activities	30,768	5,068
Cash flows from investing activities:		
Capitalization of internal-use software costs	(2,659)	(2,329)
Purchases of property and equipment	(9,980)	(14,253)
Purchases of securities available for sale and other	(321,462)	(478,138)
Proceeds from maturities of securities available for sale	244,393	219,650
Proceeds from sales of securities available for sale and other	17,329	12,470
Purchases of intangible assets	(8,500)	—
Payments for business acquisition, net of cash acquired	(44,223)	(15,616)
Net cash used in investing activities	(125,102)	(278,216)
Cash flows from financing activities:		
Proceeds from issuance of convertible senior notes, net of issuance costs	1,040,760	334,980
Payments for repurchases of 2023 convertible senior notes	(224,414)	—
Purchases of hedges related to 2023 convertible senior notes	—	(80,040)
Proceeds from hedges related to 2023 convertible senior notes	405,851	—
Proceeds from issuance of warrants related to 2023 convertible senior notes	—	52,440
Payments for warrants related to 2023 convertible senior notes	(358,622)	—
Purchases of capped calls related to 2025 convertible senior notes	(74,094)	—
Proceeds from stock option exercises, net of repurchases	36,371	28,524
Proceeds from shares issued in connection with employee stock purchase plan	9,005	6,654
Other, net	(126)	(206)
Net cash provided by financing activities	834,731	342,352
Effects of changes in foreign currency exchange rates on cash, cash equivalents and restricted cash	(241)	(990)
Net increase in cash, cash equivalents and restricted cash	740,156	68,214
Cash, cash equivalents and restricted cash at beginning of period	311,215	136,233
Cash, cash equivalents and restricted cash at end of period	$ 1,051,371	$ 204,447

Supplementary cash flow disclosure:		
Cash paid during the period for:		
Interest	$ 862	$ 403
Income taxes	845	395
Non-cash investing and financing activities:		
Issuance of common stock for repurchases of 2023 convertible senior notes	380,406	—
Vesting of early exercised common stock options	370	629
Common stock issued as charitable contribution	1,162	1,008
Operating lease right-of-use assets exchanged for lease obligations	14,957	126,088
Property and equipment acquired through tenant improvement allowance	1,682	22,237
Property and equipment and other accrued but not yet paid	927	1,431
Bonus settled through the issuance of common stock	2,809	—
Debt issuance costs, accrued but not yet paid	101	—
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	$ 1,039,626	$ 195,898
Restricted cash, current included in prepaid expenses and other current assets	307	—
Restricted cash, noncurrent included in other assets	11,438	8,549
Total cash, cash equivalents and restricted cash	$ 1,051,371	$ 204,447

(1) Adjusted for adoption of ASC 842, Leases. See Note 2.

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 U.S. generally accepted accounting principles (GAAP). All intercompany balances and transactions have been eliminated in consolidation.

The condensed consolidated balance sheet as of January 31, 2019, 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, 2020 or any future period.

The Company's fiscal year ends on January 31. References to fiscal 2020, for example, refer to the fiscal year ending January 31, 2020.

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 14, 2019. Effective February 1, 2018, the Company adopted the requirements of Accounting Standards Update (ASU) No. 2016-02, Leases (ASC 842) as discussed in Note 2. All amounts and disclosures set forth in this Form 10-Q have been updated to comply with this standard, as indicated by references to "as adjusted" in these condensed consolidated financial statements and related notes.

Certain reclassifications of prior period amounts have been made in our condensed consolidated financial statements to conform to the current period presentation. We reclassified $14.8 million of certain accrued accounts payable to accrued expenses as of January 31, 2019. These reclassifications had no impact on net loss, stockholders' equity or cash flows as previously reported.

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 our convertible senior notes, the determination of the incremental borrowing rate used for operating lease liabilities, the valuation of deferred income tax assets, contingencies and the valuation of acquired intangible assets.

2. Accounting Standards and Significant Accounting Policies

Recently Adopted Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-02, *Leases (ASC 842)*, which requires lessees to record a right-of-use asset and a corresponding lease liability on their balance sheet for most leases. The Company adopted the requirements of ASC 842 as of February 1, 2019, using the modified retrospective method for leases that existed as of February 1, 2017, or were entered into thereafter. The modified retrospective method provides a method for recording existing leases at adoption and in comparative periods that approximates the results of a full retrospective approach.

In order to simplify an entity's transition, ASC 842 provides a package of three practical expedients, which must be elected together and applied consistently to all of an entity's leases. The Company elected to utilize the package of practical expedients and, therefore, did not reassess:

- whether contractual arrangements that expired prior to or existed as of February 1, 2017, are or contain leases,
- the classification of leases that expired prior to or existed as of February 1, 2017, and
- initial direct costs for leases that existed as of February 1, 2017.

As of the later of February 1, 2017 or each lease's respective commencement date, the Company recorded lease liabilities equal to the present value of the remaining minimum lease payments and right-of-use assets equal to the corresponding lease liability adjusted for (i) any prepaid or accrued lease payments, (ii) the remaining balance of any lease incentives received, (iii) unamortized initial direct costs and (iv) any impairments.

The Company adjusted its condensed consolidated balance sheet from amounts previously reported due to the adoption of ASC 842. Select condensed consolidated balance sheet line items, which reflect the adoption of ASC 842, are as follows (in thousands):

	As of January 31, 2019		
	As Reported	Adoption of ASC 842	As Adjusted
		(unaudited)	
Assets			
Current assets:			
Prepaid expenses and other current assets	$ 29,451	$ (1,214)	$ 28,237
Total current assets	709,330	(1,214)	708,116
Operating lease right-of-use assets	—	121,389	121,389
Other noncurrent assets	15,286	(197)	15,089
Total assets	$ 864,335	$ 119,978	$ 984,313
Liabilities and stockholders' equity			
Current liabilities:			
Accrued expenses and other liabilities	$ 24,740	$ 8,913	$ 33,653
Total current liabilities	564,191	8,913	573,104
Other noncurrent liabilities	38,999	(35,981)	3,018
Operating lease liabilities, noncurrent	—	147,046	147,046
Total liabilities	611,958	119,978	731,936
Total liabilities and stockholders' equity	$ 864,335	$ 119,978	$ 984,313

The Company's condensed consolidated statement of cash flows reflects the adoption of ASC 842. The adoption of ASC 842 did not have an impact on cash provided by or used in operating, investing, or financing activities or on the Company's condensed consolidated statements of operations.

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, 2019. The Company further described its accounting policy for Convertible Senior Notes, and except for the accounting policies for operating leases that were updated below as a result of adopting ASC 842, there have been no significant changes to these policies for the nine months ended October 31, 2019.

Operating Leases and Incremental Borrowing Rate

The Company leases office space under operating leases with expiration dates through 2028. The Company determines whether an arrangement constitutes a lease and records lease liabilities and right-of-use assets on its consolidated balance sheets at lease commencement. Lease liabilities are measured based on the present value of the total lease payments not yet paid discounted based on the more readily determinable of the rate implicit in the lease or the Company's incremental borrowing rate, which is the estimated rate the Company would be required to pay for a collateralized borrowing equal to the total lease payments over the term of the lease. The estimation of the incremental borrowing rate is based on an analysis of publicly traded debt securities of companies with similar credit and financial profiles. Right-of-use assets are measured based on the corresponding lease liability adjusted for (i) payments made to the lessor at or before the commencement date, (ii) initial direct costs incurred and (iii) tenant incentives under the lease. Recognition of rent expense begins when the lessor makes the underlying asset available to the Company. The Company does not assume renewals or early terminations of its leases unless it is reasonably certain to exercise these options at commencement and does not allocate consideration between lease and non-lease components.

For short-term leases, the Company records rent expense in its condensed consolidated statements of operations on a straight-line basis over the lease term and records variable lease payments as incurred.

Convertible Senior Notes

In February 2018, the Company issued $345.0 million aggregate principal amount of 0.25% convertible senior notes due February 15, 2023 (2023 Notes). In September 2019, the Company issued $1,060.0 million aggregate principal amount of 0.125% convertible senior notes due September 1, 2025 (2025 Notes, together with the 2023 Notes, the Notes). Concurrent with the issuance of the 2025 Notes, the Company used part of the net proceeds to repurchase a portion of the 2023 Notes (2023 Notes Partial Repurchase). See Note 9 for additional details.

The Notes are accounted for in accordance with FASB ASC Subtopic 470-20, Debt with Conversion and Other Options. Pursuant to ASC Subtopic 470-20, issuers of certain convertible debt instruments, such as the Notes, that have a net settlement feature and may be settled wholly or partially in cash upon conversion are required to separately account for the liability (debt) and equity (conversion option) components of the instrument. The carrying amount of the liability component of the instrument is computed by estimating the fair value of a similar liability without the conversion option. The amount of the equity component is then calculated by deducting the fair value of the liability component from the principal amount of the instrument. The difference between the principal amount and the liability component represents a debt discount that is amortized to interest expense over the respective terms of the Notes using an effective interest rate method. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. In accounting for the issuance costs related to the Notes, the allocation of issuance costs incurred between the liability and equity components were based on their relative values.

Similarly, in accordance with ASC Subtopic 470-20, transactions involving contemporaneous exchanges of cash between the same debtor and creditor in connection with the issuance of a new debt obligation and satisfaction of an existing debt obligation by the debtor, such as the contemporaneous 2023 Notes Partial Repurchase and issuance of the 2025 Notes, should be evaluated as a modification or an exchange transaction depending on whether the exchange is determined to have substantially different terms. The 2023 Notes Partial Repurchase and issuance of the 2025 Notes were deemed to have substantially different terms due to the significant difference between the value of the conversion option immediately prior to and after the exchange, and consequently, the 2023 Notes Partial Repurchase was accounted for as a debt extinguishment. Pursuant to ASC Subtopic 470-20, total consideration for the 2023 Notes Partial Repurchase was separated into liability and equity components by estimating the fair value of a similar liability without a conversion option and assigning the residual value to the equity component. The gain or loss on extinguishment of the debt is subsequently determined by comparing repurchase consideration allocated to the liability component to the sum of the carrying value of the liability component, net of the proportionate amounts of unamortized debt discount and remaining unamortized debt issuance costs.

Recently Issued Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments, which changes the impairment model for most financial assets. The new model uses a forward-looking expected loss method, which will generally result in earlier recognition of allowances for losses. This guidance is effective for the Company on February 1, 2020 with early adoption permitted. The Company is currently evaluating the impact of the adoption of this standard on its condensed consolidated financial statements.

In August 2018, the FASB issued ASU 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. This guidance is effective for the Company on February 1, 2020 with early adoption permitted. The Company is currently evaluating the impact of the adoption of this standard on its condensed consolidated financial statements.

3. Business Combinations

On July 13, 2018, the Company acquired all issued and outstanding capital stock of ScaleFT, Inc. (ScaleFT), a "zero trust" security company which provides access solutions for the modern workforce. The acquisition date cash consideration transferred for ScaleFT was $15.6 million, net of $0.6 million in cash acquired. The Company recorded $4.6 million for developed technology intangible assets with an estimated useful life of three years and $11.8 million of goodwill, which is primarily attributed to the assembled workforce as well as the integration of ScaleFT's technology and the Company's technology. The Company incurred $1.1 million of acquisition-related costs, which were recorded as general and administrative expense in the quarter ended July 31, 2018.

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 preliminarily 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.

The Company also incurred total deferred compensation arrangements in connection with these acquisitions of $10.8 million, of which $3.2 million was recognized as compensation during the nine months ended October 31, 2019. The remaining deferred compensation balance of $5.9 million will be recognized over a future weighted-average period of 1.7 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 October 31, 2019 and January 31, 2019 were as follows (in thousands):

	As of October 31, 2019			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
		(unaudited)		
Cash equivalents:				
Money market funds	$ 989,029	$ —	$ —	$ 989,029
Total cash equivalents	989,029	—	—	989,029
Short-term investments:				
U.S. treasury securities	167,266	265	—	167,531
Corporate debt securities	158,769	330	(1)	159,098
Total short-term investments	326,035	595	(1)	326,629
Total	$ 1,315,064	$ 595	$ (1)	$ 1,315,658

	As of January 31, 2019			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
Cash equivalents:				
Money market funds	$ 247,426	$ —	$ —	$ 247,426
Corporate debt securities	3,409	—	(1)	3,408
Total cash equivalents	250,835	—	(1)	250,834
Short-term investments:				
U.S. treasury securities	195,913	37	(53)	195,897
Corporate debt securities	69,483	13	(19)	69,477
Total short-term investments	265,396	50	(72)	265,374
Total	$ 516,231	$ 50	$ (73)	$ 516,208

All short-term investments were designated as available-for-sale securities as of October 31, 2019 and January 31, 2019.

The Company's short-term investments as of October 31, 2019 and January 31, 2019 all mature within one year, as follows (in thousands):

	As of October 31, 2019		As of January 31, 2019	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(unaudited)			
Due within one year	$ 326,035	$ 326,629	$ 265,396	$ 265,374

The Company had 1 and 34 short-term investments in unrealized loss positions as of October 31, 2019 and January 31, 2019, 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 nine months ended October 31, 2019 or 2018.

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 and (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. Based on this evaluation, the Company determined that there were no other-than-temporary impairments associated with short-term investments as of October 31, 2019 and January 31, 2019.

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 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 and liabilities that are measured at fair value on a recurring basis using the above input categories (in thousands):

	As of October 31, 2019			
	Level 1	Level 2	Level 3	Total
	(unaudited)			
Assets:				
Cash equivalents:				
Money market funds	$ 989,029	$ —	$ —	$ 989,029
Corporate debt securities	—	—	—	—
Total cash equivalents	989,029	—	—	989,029
Short-term investments:				
U.S. treasury securities	—	167,531	—	167,531
Corporate debt securities	—	159,098	—	159,098
Total short-term investments	—	326,629	—	326,629
Total cash equivalents and short-term investments	$ 989,029	$ 326,629	$ —	$ 1,315,658

	As of January 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	$ 247,426	$ —	$ —	$ 247,426
Corporate debt securities	—	3,408	—	3,408
Total cash equivalents	247,426	3,408	—	250,834
Short-term investments:				
U.S. treasury securities	—	195,897	—	195,897
Corporate debt securities	—	69,477	—	69,477
Total short-term investments	—	265,374	—	265,374
Total cash equivalents and short-term investments	$ 247,426	$ 268,782	$ —	$ 516,208

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 October 31, 2019	
	Net Carrying Amount (1)	Estimated Fair Value
	(unaudited)	
2023 Convertible senior notes	$ 101,190	$ 279,764
2025 Convertible senior notes	$ 843,265	$ 1,006,406

(1) Before unamortized debt issuance costs.

The difference between the principal amount of the 2023 Notes and the 2025 Notes, $120.6 million and $1,060.0 million, respectively, and the 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 October 31, 2019, the difference between the net carrying amount of the Notes and their estimated fair values represents the equity conversion value premium the market assigned to the Notes. Based on the closing price of our common stock of $109.07 on October 31, 2019, the if-converted value of the 2023 Notes exceeded the principal amount of $120.6 million, while the if-converted value of the 2025 Notes was less than the principal amount of $1,060.0 million.

6. Deferred Commissions

Sales commissions capitalized as contract costs totaled $15.3 million and $11.7 million in the three months ended October 31, 2019 and 2018, respectively, and $36.7 million and $25.9 million in the nine months ended October 31, 2019 and 2018, respectively. Amortization of contract costs was $7.3 million and $5.4 million for the three months ended October 31, 2019 and 2018, respectively, and $20.5 million and $15.0 million for the nine months ended October 31, 2019 and 2018, respectively. There was no impairment loss in relation to the costs capitalized.

7. Goodwill and Intangible Assets, net

Goodwill

As of October 31, 2019 and January 31, 2019, goodwill was $48.0 million and $18.1 million, respectively. During the nine months ended October 31, 2019, the Company recorded $29.9 million of goodwill in connection with the Azuqua acquisition that was completed in March 2019. See Note 3 for further details. No goodwill impairments were recorded during the three and nine months ended October 31, 2019 and 2018.

Intangible Assets, net

Intangible assets consisted of the following (in thousands):

	As of October 31, 2019		
	Gross	Accumulated Amortization	Net
		(unaudited)	
Capitalized internal-use software costs	$ 23,264	$ (13,592)	$ 9,672
Purchased developed technology	28,800	(4,728)	24,072
Software licenses	1,023	(941)	82
	$ 53,087	$ (19,261)	$ 33,826

	As of January 31, 2019		
	Gross	Accumulated Amortization	Net
Capitalized internal-use software costs	$ 19,838	$ (9,969)	$ 9,869
Purchased developed technology	4,600	(833)	3,767
Software licenses	1,023	(763)	260
	$ 25,461	$ (11,565)	$ 13,896

The Company capitalized $1.8 million and $0.7 million of internal-use software costs in the three months ended October 31, 2019 and 2018, respectively, and $3.5 million and $2.8 million of internal-use software costs in the nine months ended October 31, 2019 and 2018, respectively. Stock-based compensation expense included in the total amounts capitalized were immaterial.

During the nine months ended October 31, 2019, the Company recorded $24.2 million of purchased developed technology, of which $15.7 million related to the Azuqua acquisition (see Note 3 for further details), and the remainder in connection with an asset acquisition in May 2019, whereby the Company recorded $8.5 million of purchased developed technology with an estimated useful life of five years. During the nine months ended October 31, 2018, the Company recorded $4.6 million of purchased developed technology from the ScaleFT acquisition. See Note 3 for further details.

Intangible amortization expense was $2.6 million and $1.8 million for the three months ended October 31, 2019 and 2018, respectively, and $7.7 million and $4.1 million for the nine months ended October 31, 2019 and 2018, respectively.

8. Deferred Revenue and Performance Obligations

Deferred Revenue

Deferred revenue, which is a contract liability, consists primarily of payments received 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 October 31, 2019 and 2018 that was included in the deferred revenue balances at the beginning of the respective periods was $123.5 million and $81.6 million, respectively, and $224.0 million and $147.0 million for the nine months ended October 31, 2019 and 2018, respectively. Professional services and other revenue recognized in the three and nine months ended October 31, 2019 and 2018 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 contracted revenue that has not yet been recognized, which includes deferred revenue for subscription contracts that have been invoiced and will be recognized as revenue in future periods.

As of October 31, 2019, total remaining noncancelable performance obligations under the Company's subscription contracts with customers was approximately $1,031.3 million. Of this amount, the Company expects to recognize revenue of approximately $515.9 million, or 50%, 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 October 31, 2019 was not material.

Unbilled Receivables

The Company receives payments from customers based on billing schedules as established in its contracts. Unbilled receivables and contract assets represent amounts for which the Company has recognized revenue in excess of billings pursuant to its revenue recognition policy. As of October 31, 2019 and January 31, 2019, contract assets and unbilled receivables were $1.0 million and $1.5 million, respectively, which are included in prepaid expenses and other current assets in the condensed consolidated balance sheets.

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 for the 2023 Notes Partial Repurchase, 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. Of the $604.8 million in aggregate consideration, $197.7 million and $407.1 million were allocated to the debt and equity components, respectively, utilizing an effective discount 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 2023 Notes Partial Repurchase, net of unamortized debt discount and issuance costs, was $183.1 million. The 2023 Notes Partial Repurchase resulted in a $14.6 million loss on early debt extinguishment, of which $3.8 million consisted of unamortized debt issuance costs. As of October 31, 2019, $120.6 million of principal remains 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 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 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 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 October 31, 2019, 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 January 31, 2020 and were classified as current liabilities on the condensed consolidated balance sheet as of October 31, 2019. In addition, as of the date of this filing, holders of the 2023 Notes have converted an immaterial amount of such notes (which was not in connection with the 2023 Notes Partial Repurchase).

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 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 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, utilizing an effective interest rate of 5.68% to determine the fair value of the liability component. This interest rate was based on the interest rates of similar liabilities held by other companies with similar credit risk ratings at the time of issuance that did not have associated convertible features. The following table sets forth total interest expense recognized related to the 2023 Notes (in thousands):

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(unaudited)			
Contractual interest expense	$ 99	$ 215	$ 530	$ 577
Amortization of debt issuance costs	214	299	862	777
Amortization of debt discount	2,403	3,604	9,868	9,539
Total	$ 2,716	$ 4,118	$ 11,260	$ 10,893

Total 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 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 October 31, 2019
	(unaudited)
Liability component:	
Principal	$ 120,589
Less: unamortized debt issuance costs and debt discount	(21,362)
Net carrying amount	$ 99,227

	At Issuance
	(unaudited)
Equity component:	
2023 Notes	$ 27,949
Less: issuance costs	(811)
Carrying amount of the equity component[1]	$ 27,138

[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 hedge transactions 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 connection with the 2023 Notes Partial Repurchase, the Company terminated Note Hedges corresponding to approximately 4.6 million shares for cash proceeds of $405.9 million. The proceeds were recorded as an increase to Additional paid-in capital in the condensed consolidated balance sheets. As of October 31, 2019, Note Hedges giving the Company the option to purchase approximately 2.5 million shares (subject to adjustment) remain 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 connection with the 2023 Notes Partial Repurchase, the Company terminated Warrants corresponding to approximately 4.6 million shares for total cash payments of $358.6 million. The termination payment was recorded as a decrease to Additional paid-in capital in the condensed consolidated balance sheets. As of October 31, 2019, Warrants to acquire up to approximately 2.5 million shares (subject to adjustment) remain 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 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 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 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 October 31, 2019, 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 October 31, 2019, the Company has not redeemed 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 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 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 utilizing an effective interest rate of 4.10% to determine the fair value of the liability component. This interest rate was based on the interest rates of similar liabilities held by other companies with similar credit risk ratings at the time of issuance that did not have associated convertible features. The following table sets forth total interest expense recognized related to the 2025 Notes (in thousands):

	Three Months Ended October 31, 2019 (unaudited)
Contractual interest expense	$ 188
Amortization of debt issuance costs	275
Amortization of debt discount	4,649
Total	$ 5,112

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 October 31, 2019
	(unaudited)
Liability component:	
Principal	$ 1,060,000
Less: unamortized debt issuance costs and debt discount	(231,763)
Net carrying amount	$ 828,237

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

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

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 (Capped Calls). The 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 Capped Calls have initial cap prices of $255.88 per share (subject to adjustment) and will expire in 2025, if not exercised earlier. The 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 Capped Calls. The amount paid for the Capped Calls was recorded as a reduction to Additional paid-in capital in the condensed 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 do not contain material variable rent payments, residual value guarantees, covenants or other restrictions.

The Company has various sublease agreements with third parties. The subleases have remaining lease terms of between one and five years. Sublease income, which is recorded as a reduction of rental expense, was $0.8 million and $2.2 million for the three and nine months ended October 31, 2019.

Operating lease costs for the three and nine months ended October 31, 2019 and 2018, are as follows (in thousands):

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(unaudited)			
Operating lease cost[(1)]	$ 5,882	$ 6,973	$ 16,965	$ 16,213

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

The weighted-average remaining term of the Company's operating leases was 8.2 and 8.9 years and the weighted-average discount rate used to measure the present value of the operating lease liabilities was 5.7% and 5.8% as of October 31, 2019 and January 31, 2019, respectively.

Maturities of the Company’s operating lease liabilities, which do not include short-term leases, as of October 31, 2019 are as follows (in thousands):

	Operating Leases
	(unaudited)
2020	$ 6,010
2021	26,552
2022	26,654
2023	26,662
2024	27,218
Thereafter	103,340
Total lease payments	216,436
Less imputed interest	(47,720)
Total operating lease liabilities	$ 168,716

Cash payments included in the measurement of the Company’s operating lease liabilities were $6.1 million and $3.1 million for the three months ended October 31, 2019 and 2018, respectively, and $10.9 million and $9.2 million for the nine months ended October 31, 2019 and 2018, respectively.

As of October 31, 2019, the Company has $55.0 million of undiscounted future payments under various operating leases that has not yet commenced, which are excluded from the table above. These operating leases will commence in fiscal 2021 and have lease terms between 4.9 and 8.7 years.

11. Commitments and Contingencies

Letters of Credit

In conjunction with the execution of leases, letters of credit in the aggregate amount of $11.7 million and $12.7 million were issued and outstanding as of October 31, 2019 and January 31, 2019, 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 October 31, 2019.

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 October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
		(unaudited)		
Cost of revenue				
Subscription	$ 3,604	$ 2,383	$ 9,137	$ 5,813
Professional services and other	1,900	1,305	5,292	3,277
Research and development	10,894	6,291	26,322	15,776
Sales and marketing	10,937	6,228	26,959	15,852
General and administrative	8,400	5,335	21,984	13,181
Total	$ 35,735	$ 21,542	$ 89,694	$ 53,899

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 nine months ended October 31, 2019 and 2018. 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 October 31, 2019, options to purchase 12,343,495 shares of Class B common stock and 1,082,093 shares of Class A common stock remain outstanding.

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

	As of October 31, 2019
	(unaudited)
Stock options and unvested RSUs outstanding	18,526,930
Available for future stock option and RSU grants	16,558,291
Available for ESPP	3,778,949
	38,864,170

Stock Options

A summary of the Company's stock option activity and related information is 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, 2019	17,803,794	$ 9.16	7.1	$ 1,304,446
Granted	415,547	82.33		
Exercised	(4,406,311)	8.26		
Canceled	(387,442)	13.76		
Outstanding as of October 31, 2019 (unaudited)	13,425,588	$ 11.59	6.4	$ 1,308,703
As of October 31, 2019				
Vested and exercisable (unaudited)	9,018,364	$ 8.03	6.0	$ 911,209

As of October 31, 2019, there was a total of $33.3 million of unrecognized stock-based compensation expense, which is expected to be recognized over a weighted-average period of 1.6 years.

Restricted Stock Units

A summary of the Company's RSU activity and related information is as follows:

	Number of RSUs	Weighted-Average Grant Date Fair Value Per Share
Outstanding as of January 31, 2019	4,835,536	$ 44.49
Granted	2,157,585	114.18
Vested	(1,391,628)	44.34
Forfeited	(500,151)	49.36
Outstanding as of October 31, 2019 (unaudited)	5,101,342	$ 73.53

As of October 31, 2019, there was $341.6 million of unrecognized stock-based compensation expense related to unvested RSUs, which is expected to be recognized over a weighted-average period of 2.8 years based on vesting under the award service conditions.

Employee Stock Purchase Plan

Except for the initial offering period which began April 7, 2017 and ended on June 20, 2018, 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 October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(unaudited)			
Expected volatility	—	—	43% - 59%	39% - 40%
Expected term (in years)	—	—	0.5 - 1.0	0.5 - 1.0
Risk-free interest rate	—	—	2.05% - 1.95%	2.12% - 2.34%
Expected dividend yield	—	—	—	—

During the nine months ended October 31, 2019, the Company's employees purchased 197,703 shares of its Class A common stock under the ESPP. The shares were purchased at a weighted-average purchase price of $45.55 per share, with total proceeds of $9.0 million.

As of October 31, 2019, there was $5.4 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 nine months ended October 31, 2019, the Company recorded a tax provision of $0.3 million and tax benefit of $2.3 million on pretax losses of $63.1 million and $160.7 million, respectively. The effective tax rate for the three and nine months ended October 31, 2019 was (0.6)% and 1.4%, 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 benefit recognized for the nine months ended October 31, 2019 was partially offset by income tax expense in profitable foreign jurisdictions and U.S. state taxes.

For the three and nine months ended October 31, 2018, the Company recorded a tax benefit of $0.7 million and $1.9 million, respectively, on pretax losses of $30.2 million and $96.6 million, respectively. The effective tax rate for the three and nine months ended October 31, 2018 was 2.2% and 1.9%, 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 ScaleFT acquisition and excess tax benefits from stock-based compensation in the United Kingdom. These tax benefits were partially offset by income tax expense in profitable foreign jurisdictions and U.S. state taxes.

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 October 31,				Nine Months Ended October 31,			
	2019		2018		2019		2018	
	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
	(unaudited)							
Numerator:								
Net loss	$ (58,761)	$ (4,734)	$ (26,502)	$ (3,015)	$ (145,139)	$ (13,302)	$ (79,991)	$ (14,695)
Denominator:								
Weighted-average shares outstanding - basic and diluted	110,105	8,871	97,665	11,111	105,893	9,705	90,045	16,542
Net loss per share, basic and diluted	$ (0.53)	$ (0.53)	$ (0.27)	$ (0.27)	$ (1.37)	$ (1.37)	$ (0.89)	$ (0.89)

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 October 31,	
	2019	2018
	(unaudited)	
Unvested restricted common stock issued and outstanding	—	400
Stock options issued and outstanding	13,426	19,314
Unvested RSUs issued and outstanding	5,101	4,936
Unvested restricted stock awards issued and outstanding	177	388
Shares related to 2023 convertible senior notes	2,494	7,134
Shares subject to warrants related to the issuance of 2023 convertible senior notes	2,494	—
Shares related to 2025 convertible senior notes	5,617	—
Shares committed under the ESPP	209	359
Unvested shares subject to repurchase	7	67
	29,525	32,598

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 and 2025 Notes and exercise rights of the Warrants will have a dilutive impact on net income per share of common stock when the average market price per share of the Company's Class A common stock for a given period exceeds the conversion prices of $48.36 per share, $188.71 per share and exercise price of $68.06 per share, respectively. During the three months ended October 31, 2019, the weighted average price per share of the Company's Class A common stock exceeded the conversion price of the 2023 Notes and 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 people to technology, anywhere, anytime and from any device. Every day, millions of people use Okta to securely access a wide range of cloud, mobile and web applications, IT infrastructure providers, servers 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 embed identity into their software. Our approach allows our customers to simplify and scale their IT and security infrastructures more efficiently as the number of users, devices, clouds and other technologies in their ecosystem grows.

We founded the company in 2009 to reinvent identity for the modern cloud era, where identity is the critical foundation for connection and trust between users and technology. Since our inception, we have consistently innovated to enhance and extend our platform and our product offerings.

In parallel to this product innovation, 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 October 31, 2019, 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 up-selling 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, independent software vendors, or ISVs, 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.

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 expect capitalized internal-use software costs and related amortization to 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 revenue as our 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 Expense and Other Income, Net

Interest expense and other income, 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 tables set forth our results of operations for the periods presented in dollars and as a percentage of our revenue:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)			
Revenue:				
Subscription	$ 144,517	$ 97,698	$ 394,174	$ 262,393
Professional services and other	8,520	7,878	24,566	21,390
Total revenue	153,037	105,576	418,740	283,783
Cost of revenue:				
Subscription[(1)]	30,124	20,265	82,581	55,808
Professional services and other[(1)]	10,700	9,435	32,118	26,227
Total cost of revenue	40,824	29,700	114,699	82,035
Gross profit	112,213	75,876	304,041	201,748
Operating expenses:				
Research and development[(1)]	41,832	27,596	115,909	72,354
Sales and marketing[(1)]	87,224	56,911	247,721	165,408
General and administrative[(1)]	28,887	19,848	81,540	55,873
Total operating expenses	157,943	104,355	445,170	293,635
Operating loss	(45,730)	(28,479)	(141,129)	(91,887)
Interest expense	(7,826)	(4,118)	(16,371)	(10,893)
Other income, net	4,982	2,413	11,346	6,211
Loss on early extinguishment of debt	(14,572)	—	(14,572)	—
Interest expense and other income, net	(17,416)	(1,705)	(19,597)	(4,682)
Loss before provision for (benefit from) income taxes	(63,146)	(30,184)	(160,726)	(96,569)
Provision for (benefit from) income taxes	349	(667)	(2,285)	(1,883)
Net loss	$ (63,495)	$ (29,517)	$ (158,441)	$ (94,686)

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

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)			
Cost of subscription revenue	$ 3,604	$ 2,383	$ 9,137	$ 5,813
Cost of professional services and other revenue	1,900	1,305	5,292	3,277
Research and development	10,894	6,291	26,322	15,776
Sales and marketing	10,937	6,228	26,959	15,852
General and administrative	8,400	5,335	21,984	13,181
Total stock-based compensation expense	$ 35,735	$ 21,542	$ 89,694	$ 53,899

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
Revenue				
Subscription	94 %	93 %	94 %	92 %
Professional services and other	6	7	6	8
Total revenue	100	100	100	100
Cost of revenue				
Subscription	20	19	19	20
Professional services and other	7	9	8	9
Total cost of revenue	27	28	27	29
Gross profit	73	72	73	71
Operating expenses				
Research and development	27	26	28	25
Sales and marketing	57	54	59	58
General and administrative	19	19	20	20
Total operating expenses	103	99	107	103
Operating loss	(30)	(27)	(34)	(32)
Interest expense	(5)	(4)	(4)	(4)
Other income (expense), net	3	2	3	2
Loss on early extinguishment of debt	(9)	—	(4)	—
Interest expense and other income, net	(11)	(2)	(5)	(2)
Loss before provision for (benefit from) income taxes	(41)	(29)	(39)	(34)
Provision for (benefit from) income taxes	—	(1)	(1)	(1)
Net loss	(41)%	(28)%	(38)%	(33)%

Comparison of the Three Months Ended October 31, 2019 and 2018

Revenue

	Three Months Ended October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
Revenue:				
Subscription	$ 144,517	$ 97,698	$ 46,819	48%
Professional services and other	8,520	7,878	642	8
Total revenue	$ 153,037	$ 105,576	$ 47,461	45%
Percentage of revenue:				
Subscription	94%	93%		
Professional services and other	6	7		
Total	100%	100%		

Subscription revenue increased by $46.8 million, or 48%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. 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 $0.6 million, or 8%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. The increase in professional services revenue 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 October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
Cost of revenue:				
Subscription	$ 30,124	$ 20,265	$ 9,859	49%
Professional services and other	10,700	9,435	1,265	13
Total cost of revenue	$ 40,824	$ 29,700	$ 11,124	37%
Gross profit	$ 112,213	$ 75,876	$ 36,337	48%
Gross margin:				
Subscription	79 %	79 %		
Professional services and other	(26)	(20)		
Total gross margin	73	72		

Cost of subscription revenue increased by $9.9 million, or 49%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018, primarily due to an increase of $5.6 million in employee compensation costs related to higher headcount to support the growth in our subscription services, an increase of $1.9 million in data center costs as we increased capacity to support our growth, and an increase of $0.9 million for amortization of purchased developed technology intangible assets.

Our gross margin for subscription revenue remained consistent at 79% for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. 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 $1.3 million, or 13%, for the three months ended October 31, 2019, compared to the three months ended October 31, 2018, primarily due to an increase of $1.4 million in employee compensation costs related to higher headcount.

Our gross margin for professional services and other revenue decreased to (26)% during the three months ended October 31, 2019 from (20)% during the three months ended October 31, 2018, primarily due to additional investment in our professional services organization.

Operating Expenses

Research and Development Expenses

	Three Months Ended October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
Research and development	$ 41,832	$ 27,596	$ 14,236	52%
Percentage of revenue	27%	26%		

Research and development expenses increased $14.2 million, or 52%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. The increase was primarily due to an increase of $12.9 million in employee compensation costs due to higher headcount.

Sales and Marketing Expenses

	Three Months Ended October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
Sales and marketing	$ 87,224	$ 56,911	$ 30,313	53%
Percentage of revenue	57%	54%		

Sales and marketing expenses increased $30.3 million, or 53%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. The increase was primarily due to an increase of $19.0 million in employee compensation costs related to headcount growth, and an increase of $1.7 million in employee-related expenses. Marketing and event costs increased by $4.9 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 October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
General and administrative	$ 28,887	$ 19,848	$ 9,039	46%
Percentage of revenue	19%	19%		

General and administrative expenses increased $9.0 million, or 46%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. The increase was primarily due to an increase of $7.6 million in employee compensation costs primarily related to higher headcount to support our continued growth and an increase of $1.6 million in costs from professional services comprised primarily of legal and accounting fees.

Interest Expense and Other Income, Net

	Three Months Ended October 31,			
	2019	2018	$ Change	% Change
	(dollars in thousands)			
Interest expense	$ (7,826)	$ (4,118)	(3,708)	90%
Other income, net	4,982	2,413	2,569	106
Loss on early extinguishment of debt	(14,572)	—	(14,572)	—
Interest expense and other income, net	$ (17,416)	$ (1,705)	$ (15,711)	921%

Interest expense increased $3.7 million, or 90%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018, due to an increase of $5.1 million for the 2025 Notes offset by a decrease of $1.4 million for the 2023 Notes, due to the 2023 Notes Partial Repurchase. Other income, net increased $2.6 million, or 106%, for the three months ended October 31, 2019 compared to the three months ended October 31, 2018. The increase was primarily due to interest and other income earned on higher cash and short-term investment balances.

Loss on early extinguishment of debt increased $14.6 million for the three months ended October 31, 2019 compared to the three months ended October 31, 2018 due to the 2023 Notes Partial Repurchase.

Comparison of the Nine Months Ended October 31, 2019 and 2018

Revenue

	Nine Months Ended October 31,			
	2019	2018	$ Change	% Change
	(dollars in thousands)			
Revenue:				
Subscription	$ 394,174	$ 262,393	$ 131,781	50%
Professional services and other	24,566	21,390	3,176	15
Total revenue	$ 418,740	$ 283,783	$ 134,957	48%
Percentage of revenue:				
Subscription	94%	92%		
Professional services and other	6	8		
Total	100%	100%		

Subscription revenue increased by $131.8 million, or 50%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018. 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 $3.2 million, or 15%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018. The increase in professional services revenue 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

	Nine Months Ended October 31,			
	2019	**2018**	**$ Change**	**% Change**
	(dollars in thousands)			
Cost of revenue:				
Subscription	$ 82,581	$ 55,808	$ 26,773	48%
Professional services and other	32,118	26,227	5,891	22
Total cost of revenue	$ 114,699	$ 82,035	$ 32,664	40%
Gross profit	$ 304,041	$ 201,748	$ 102,293	51%
Gross margin:				
Subscription	79 %	79 %		
Professional services and other	(31)	(23)		
Total gross margin	73	71		

Cost of subscription revenue increased by $26.8 million, or 48%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018, primarily due to an increase of $14.3 million in employee compensation costs related to higher headcount to support the growth in our subscription services, an increase of $4.4 million in data center costs as we increased capacity to support our growth and an increase of $3.4 million for amortization of purchased developed technology intangible assets.

Our gross margin for subscription revenue remained consistent at 79% during the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018. 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 $5.9 million, or 22%, for the nine months ended October 31, 2019, compared to the nine months ended October 31, 2018, primarily due to an increase of $5.0 million in employee compensation costs related to higher headcount.

Our gross margin for professional services and other revenue decreased to (31)% during the nine months ended October 31, 2019 from (23)% during the nine months ended October 31, 2018 primarily due to additional investment in our professional services organization.

Operating Expenses

Research and Development Expenses

	Nine Months Ended October 31,			
	2019	**2018**	**$ Change**	**% Change**
	(dollars in thousands)			
Research and development	$ 115,909	$ 72,354	$ 43,555	60%
Percentage of revenue	28%	25%		

Research and development expenses increased $43.6 million, or 60%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018. The increase was primarily due to an increase of $37.5 million in employee compensation costs due to higher headcount and an increase of $2.3 million in allocated overhead costs.

Sales and Marketing Expenses

	Nine Months Ended October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
Sales and marketing	$ 247,721	$ 165,408	$ 82,313	50%
Percentage of revenue	59%	58%		

Sales and marketing expenses increased $82.3 million, or 50%, for the nine months ended October 31, 2019, compared to the nine months ended October 31, 2018. The increase was primarily due to an increase of $49.6 million in employee compensation costs related to headcount growth. Marketing and event costs increased by $13.6 million due to an increase in the scope and scale of our annual customer conference compared to fiscal 2019 and increases in demand generation programs, advertising and brand awareness efforts aimed at acquiring new customers. Employee related expenses increased by $5.7 million to support efforts to expand our customer base and allocated overhead costs increased by $5.2 million, in line with the increased scale of our sales and marketing organization.

General and Administrative Expenses

	Nine Months Ended October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
General and administrative	$ 81,540	$ 55,873	$ 25,667	46%
Percentage of revenue	20%	20%		

General and administrative expenses increased $25.7 million, or 46%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018. The increase was primarily due to an increase of $21.3 million in employee compensation costs related to higher headcount to support our continued growth, and an increase of $2.2 million in acquisition costs primarily related to higher costs incurred for our acquisition of Azuqua in the nine months ended October 2019 as compared to our costs incurred for our acquisition of ScaleFT in the nine months ended October 2018.

Interest Expense and Other Income, Net

	Nine Months Ended October 31,			
	2019	2018	$ Change	% Change
		(dollars in thousands)		
Interest expense	$ (16,371)	$ (10,893)	$ (5,478)	50%
Other income, net	11,346	6,211	5,135	83
Loss on early extinguishment of debt	(14,572)	—	(14,572)	—
Interest expense and other income, net	$ (19,597)	$ (4,682)	$ (14,915)	319%

Interest expense increased $5.5 million, or 50%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018, primarily related to an increase of $5.1 million for the 2025 Notes. Other income, net increased $5.1 million, or 83%, for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018. The increase was primarily due to interest and other income earned on higher cash and short-term investment balances.

Loss on early extinguishment of debt increased $14.6 million for the nine months ended October 31, 2019 compared to the nine months ended October 31, 2018 due to the 2023 Notes Partial Repurchase.

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 October 31,	
	2019	2018
Customers with Annual Contract Value (ACV) above $100,000	1,325	937
Dollar-Based Net Retention Rate for the trailing 12 months ended	117%	120%

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)			
Calculated Billings	$ 175,576	$ 124,038	$ 478,535	$ 329,355

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

As of October 31, 2019, we had over 7,400 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 ACV with us was 1,325 and 937 as of October 31, 2019 and 2018, respectively. We expect this trend to continue as larger enterprises recognize the value of our platform and replace their legacy 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 Dollar-Based Net Retention Rate for the trailing 12 months ended October 31, 2019 and 2018 was 117% and 120%, respectively.

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 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 attrition 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.

As we add larger customers and the size of our initial deployments continues to grow, we expect our Dollar-Based Net Retention Rate will remain strong, with period to period fluctuations.

Calculated Billings

Calculated Billings represent our total revenue plus the change in total deferred revenue and the change in total 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, as well as our rights to consideration for performance obligations satisfied but unbilled as of the reporting date. We typically invoice customers in advance in annual installments for subscriptions to our platform.

Calculated Billings increased 42% in the three months ended October 31, 2019 over the three months ended October 31, 2018, and increased 45% in the nine months ended October 31, 2019 over the nine months ended October 31, 2018. 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 and income 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 and income 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 October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(dollars in thousands)			
Gross profit	$ 112,213	$ 75,876	$ 304,041	$ 201,748
Add:				
Stock-based compensation expense included in cost of revenue	5,504	3,688	14,429	9,090
Amortization of acquired intangibles	1,347	449	3,895	449
Non-GAAP gross profit	$ 119,064	$ 80,013	$ 322,365	$ 211,287
Gross margin	73%	72%	73%	71%
Non-GAAP gross margin	78%	76%	77%	74%

Non-GAAP Operating Loss and Non-GAAP Operating Margin

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

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(dollars in thousands)			
Operating loss	$ (45,730)	$ (28,479)	$ (141,129)	$ (91,887)
Add:				
Stock-based compensation expense	35,735	21,542	89,694	53,899
Charitable contributions	510	—	1,162	1,008
Amortization of acquired intangibles	1,347	449	3,895	449
Acquisition-related expenses	—	—	3,449	—
Non-GAAP operating loss	$ (8,138)	$ (6,488)	$ (42,929)	$ (36,531)
Operating margin	(30)%	(27)%	(34)%	(32)%
Non-GAAP operating margin	(5)%	(6)%	(10)%	(13)%

Non-GAAP Net Loss and Non-GAAP Net Margin

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

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(dollars in thousands)			
Net Loss	$ (63,495)	$ (29,517)	$ (158,441)	$ (94,686)
Add:				
Stock-based compensation expense	35,735	21,542	89,694	53,899
Charitable contributions	510	—	1,162	1,008
Amortization of acquired intangibles	1,347	449	3,895	449
Acquisition-related expenses	—	—	3,449	—
Amortization of debt discount	7,052	3,604	14,517	9,539
Loss on early extinguishment of debt, net of debt issuance costs	10,794	—	10,794	—
Non-GAAP net loss	$ (8,057)	$ (3,922)	$ (34,930)	$ (29,791)
Net margin	(41)%	(28)%	(38)%	(33)%
Non-GAAP net margin	(5)%	(4)%	(8)%	(10)%

Free Cash Flow

We define Free Cash Flow as net cash provided by (used in) operating activities, less cash used for purchases of property and equipment and capitalized internal-use software costs.

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)			
Net cash provided by operating activities	$ 10,640	$ 6,439	$ 30,768	$ 5,068
Less:				
Purchases of property and equipment	(63)	(4,463)	(9,980)	(14,253)
Capitalization of internal-use software costs	(1,329)	(604)	(2,659)	(2,329)
Free cash flow	$ 9,248	$ 1,372	$ 18,129	$ (11,514)
Net cash used in investing activities	$ 22,888	$ (10,545)	$ (125,102)	$ (278,216)
Net cash provided by financing activities	$ 798,399	$ 7,469	$ 834,731	$ 342,352

Calculated Billings

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

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)			
Total revenue	$ 153,037	$ 105,576	$ 418,740	$ 283,783
Add:				
Deferred revenue (end of period)	313,756	211,123	313,756	211,123
Unbilled receivables (beginning of period)	1,004	818	1,457	809
Less:				
Unbilled receivables (end of period)	(1,028)	(1,581)	(1,028)	(1,581)
Deferred revenue (beginning of period)	(291,193)	(191,898)	(254,390)	(164,779)
Calculated billings	$ 175,576	$ 124,038	$ 478,535	$ 329,355

Liquidity and Capital Resources

As of October 31, 2019, our principal sources of liquidity were cash, cash equivalents and short-term investments totaling $1,366.3 million, which were held for working capital purposes. Our cash equivalents and investments were comprised primarily of money market funds, U.S. treasury securities and corporate debt securities. We have generated significant operating losses 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 negative cash flows from operations 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 Note Hedge transactions 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 the 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 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 2023 Notes Partial Repurchase for net proceeds of $47.2 million.

We believe our existing cash and cash equivalents, our 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 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 October 31, 2019, we had deferred revenue of $313.8 million, of which $306.7 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:

	Nine Months Ended October 31,	
	2019	2018
	(in thousands)	
Net cash provided by operating activities	$ 30,768	$ 5,068
Net cash used in investing activities	(125,102)	(278,216)
Net cash provided by financing activities	834,731	342,352
Effects of changes in foreign currency exchange rates on cash, cash equivalents and restricted cash	(241)	(990)
Net increase in cash, cash equivalents and restricted cash	$ 740,156	$ 68,214

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. Historically, we have generated negative cash flows from operating activities and have supplemented working capital requirements through net proceeds from the private sale of equity securities and more recently from the net proceeds from the issuance of the Notes and from our IPO.

During the nine months ended October 31, 2019, cash provided by operating activities was $30.8 million primarily due to our net loss of $158.4 million, adjusted for non-cash charges of $151.0 million and net cash inflows of $38.2 million provided by changes in our operating assets and liabilities. Non-cash charges primarily consisted of stock-based compensation, loss on early extinguishment of debt, amortization of deferred commissions, amortization of debt discount and issuance costs, depreciation and amortization of property and equipment and intangible assets, and non-cash charitable contributions, offset by non-cash income from deferred income taxes. The primary drivers of the changes in operating assets and liabilities related to a $58.7 million increase in deferred revenue, a $23.3 million increase in accounts payable, accrued compensation, and accrued other expenses and a $7.9 million increase in operating lease right-of-use assets, partially offset by a $36.6 million increase in deferred commissions, a $9.4 million increase in accounts receivable, a $4.1 million decrease in operating lease liabilities and a $1.5 million increase in prepaid expenses and other assets.

During the nine months ended October 31, 2018, cash used in operating activities was $5.1 million primarily due to our net loss of $94.7 million, adjusted for non-cash charges of $83.9 million and net cash inflows of $15.9 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. The primary drivers of the changes in operating assets and liabilities related to a $46.0 million increase in deferred revenue, a $12.2 million decrease in operating lease right-of-use assets, a $1.9 million increase in other accrued expenses and a $7.6 million increase in accounts payable and accrued compensation, partially offset by a $25.9 million increase in deferred commissions, a $17.5 million increase in accounts receivable, a $5.6 million decrease in operating lease liabilities and a $2.8 million increase in prepaid expenses and other assets.

Investing Activities

Net cash used in investing activities during the nine months ended October 31, 2019 of $125.1 million was primarily attributable to the purchases of investments of $321.5 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 $10.0 million to support additional office space and headcount, and the capitalization of internal-use software costs of $2.7 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 $261.7 million.

Net cash used in investing activities during the nine months ended October 31, 2018 of $278.2 million was primarily attributable to the purchase of investments of $478.1 million, payment of $15.6 million, net of cash acquired, in connection with ScaleFT acquisition, purchases of property and equipment of $14.3 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. These activities were partially offset by proceeds from the sale and maturities of investments of $232.1 million.

Financing Activities

Cash provided by financing activities during the nine months ended October 31, 2019 of $834.7 million was primarily attributable to the issuance of the 2025 Notes for proceeds of $1,040.8 million, net of issuance costs and proceeds from the termination of Note Hedges of $405.9 million, offset by cash payments for the 2023 Notes Partial Repurchase of $224.4 million, payments for the termination of Warrants of $358.6 million, and the purchase of Capped Calls for the 2025 notes of $74.1 million. Other items impacting cash provided by financing activities include proceeds from the exercise of stock options, net of repurchases, of $36.4 million and proceeds from employee purchases under our employee stock purchase plan (ESPP) of $9.0 million.

Cash provided by financing activities during the nine months ended October 31, 2018 of $342.4 million was primarily attributable to proceeds from the issuance of the 2023 Notes of $335.0 million, net of costs of issuance, proceeds from the issuance of warrants of $52.4 million and proceeds from the exercise of stock options of $28.5 million, net of repurchases and proceeds from our ESPP of $6.7 million, partially offset by cash used to purchase the Note Hedges of $80.0 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 financial statements.

Off-Balance Sheet Arrangements

As of October 31, 2019, 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 nine months ended October 31, 2019, 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 and Australia. 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 nine months ended October 31, 2019 and 2018, 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 $1,366.3 million as of October 31, 2019, of which $1,315.7 million was invested in money market funds, U.S. treasury securities 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 or losses are recognized due to changes in interest rates unless such securities are sold prior to maturity or declines in fair value are determined to be other-than-temporary.

As of October 31, 2019, 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 were repurchased in September 2019. 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 in connection with the 2023 Notes Partial Repurchase. The Note Hedges were completed to reduce the potential dilution from the conversion of the 2023 Notes.

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

The Notes have a fixed annual interest rate of 0.25% and 0.125% 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.

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 October 31, 2019.

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

We have a limited operating history, which makes it difficult to forecast our revenue and evaluate our business and future prospects.

We have been in existence since 2009, and much of our growth has occurred in recent periods. As a result of our limited operating history, our ability to forecast our future results of operations and plan for and model future growth is limited and subject to a number of uncertainties. We have encountered and will continue to encounter risks and uncertainties frequently experienced by growing companies in rapidly changing industries, such as the risks and uncertainties described herein. 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 2017 to fiscal 2018, our revenue grew from $160.8 million to $256.5 million, an increase of 60%, and from fiscal 2018 to fiscal 2019, our revenue grew from $256.5 million to $399.3 million, an increase of 56%. 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, including, 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, ISVs, system integrators and other distribution partners;
- 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 $75.1 million, $109.8 million and $125.5 million in fiscal 2017, 2018 and 2019, 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 1,473 employees as of October 31, 2018 to 2,116 employees as of October 31, 2019. 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 and Australia, 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 market for identity solutions is intensely competitive, and we expect competition to increase in the future from established competitors and new market entrants. For products that organizations can use to manage identities for their workforce (employees, contractors and partners), which we refer to as workforce identity, our competitors include authentication, lifecycle management and multi-factor authentication providers, many of which are large companies such as Computer Associates (a subsidiary of Broadcom), IBM, Microsoft, Oracle, Ping Identity, RSA (a division of Dell Technologies), Duo Security (a division of Cisco Systems), SailPoint and Symantec, and other companies that have acquired identity management solution providers in recent years. For products that organizations can use to manage and secure their customers' identities, which we refer to as customer identity, we generally compete with internally developed systems, infrastructure-as-a-service providers, such as Amazon Web Services (AWS), Google Cloud Platform and Microsoft, and dedicated customer identity and access management vendors, such as Gigya (a division of SAP) and Janrain (a division of Akamai Technologies). We also actively compete with private companies that offer products for both workforce identity and customer identity. 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. Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as significantly greater financial, technical, sales and marketing, distribution, customer support or other resources, longer operating histories, greater resources to make strategic acquisitions and greater name recognition than we do.

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 will therefore not be 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 inability to convert new organizations into paying customers, failure to attract and effectively train new sales and marketing personnel, failure to retain and motivate our current 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 once deployed 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, 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.

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 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 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 in time to prevent compromise, or at all. 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, 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;
- 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 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;
- 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 our privacy policy or legal or regulatory requirements in one or multiple jurisdictions 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.

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 governmental enforcement actions and prosecutions, private litigation, fines and penalties 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.

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 which takes effect on January 1, 2020 and will broadly define personal information, give California residents expanded privacy rights and protections and provide for civil penalties for violations and a private right of action for data breaches. 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.

Our failure to comply with applicable laws and regulations, or to protect such data, could result in enforcement action against us, including fines and public censure, claims for damages by customers and other affected individuals, damage to our reputation and loss of goodwill (both in relation to existing customers and prospective customers), any of which could harm our business, results of operations and financial condition.

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, damage to our reputation, inhibition of sales and to our business.

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. 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.

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.

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, we expect our sales cycles to lengthen and become less predictable, which may harm our financial results. 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.

If we fail to offer high-quality customer support, our business and reputation will suffer.

Once our platform is deployed to our customers, our customers rely on our support services to resolve any related issues. High-quality customer education and customer support is important for the successful marketing and sale of our products and for the renewal of existing customers. The importance of high-quality customer support will increase as we expand our business and pursue new organizations. If we do not help our customers quickly resolve post-deployment issues and provide effective ongoing customer support, our ability to upsell additional products to existing customers would suffer and our reputation with existing or potential customers would be harmed.

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 providing incentives to 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 assure you 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 Topic 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 due to factors that may offset the decrease, such as an increase in billings duration, the dollar value of contracts with future start dates, or the dollar value of collections in the current period related to contracts with future start dates.

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.

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 systemic impact of a potential widespread recession (in the United States or internationally), energy costs, geopolitical issues or the availability and cost of credit could 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. 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, broadening or protracted extension of an economic downturn could harm our business, revenue, results of operations and cash flows.

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 few 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. We therefore 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 due to certain constraints, such as high employee turnover, lack of management ability or a lack of other research and development resources, 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 would 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 utilize 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 utilize 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 their 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 utilize, or functional equivalents thereof, 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 these components 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, including our customers' business, integration, migration and security requirements, or errors by us or our partners, may cause implementations of our products 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. Further, various factors, including our customers' business, integration, migration and security requirements, or errors by us or our partners, 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.

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 governmental 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 governmental contracts, and any violations could result in penalties and sanctions, including termination of the contract, refunding or forfeiting payments, fines and suspension or disbarment 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, require preferential pricing, termination rights tied to funding availability or "most favored nation" terms and conditions, 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 assure you that we could 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.

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 the invalidation of the Safe Harbor Program and the European General Data Protection Regulation.

In the European Community, Directive 95/46/EC, or the Directive, has required European Union member states to implement data protection laws to meet the strict privacy requirements of the Directive. Among other requirements, the Directive regulates transfers of personally identifiable data that is subject to the Directive, or Personal Data, to third countries, such as the United States, that have not been found to provide adequate protection to such Personal Data. Our customers have in the past relied upon our adherence to the U.S. Department of Commerce's Safe Harbor Privacy Principles and compliance with the U.S.-EU and U.S.-Swiss Safe Harbor Frameworks as agreed to and set forth by the U.S. Department of Commerce, and the European Union and Switzerland, which established a means for legitimating the transfer of Personal Data by data controllers in the European Economic Area, or EEA, to the United States. As a result of the October 6, 2015 European Union Court of Justice, or ECJ, opinion in Case C-362/14 (Schrems v. Data Protection Commissioner) regarding the adequacy of the U.S.-EU Safe Harbor Framework, the U.S.-EU Safe Harbor Framework is no longer deemed to be a valid method of compliance with requirements set forth in the Directive (and member states' implementations thereof) regarding the transfer of Personal Data outside of the EEA.

After the invalidation of the Safe Harbor Framework, negotiators from the European Union and United States worked to arrive at a new solution to legitimize transfers of Personal Data from the EEA to the United States and eventually reached political agreement on a successor to the Safe Harbor Framework. The Privacy Shield was formally adopted and as of August 1, 2016, interested companies have been permitted to register for the program. There continue to be concerns about the future of Privacy Shield as a legitimate data transfer mechanism as it continues to be subject to legal challenges. Until the remaining legal uncertainties regarding the future of the EU-US Privacy Shield are settled and we determine whether we will participate in the program, we will continue to face uncertainty as to whether our efforts to comply with our obligations under European privacy laws will be sufficient. In addition, the other bases on which we and our customers rely for the transfer of data, such as the Standard Contractual Clauses, continue to be subjected to regulatory and judicial scrutiny. In 2017, a legal challenge to the validity of the EU Standard Contractual Clauses (a data transfer mechanism) was referred to the ECJ for review. If the Standard Contractual Clauses are struck down as a lawful data transfer mechanism as a result of these proceedings or otherwise, it could harm us and our customers who rely on these clauses. If we are investigated by a European data protection authority, we may face fines and other penalties. Any such investigation or charges by European data protection authorities could have a negative effect on our existing business and on our ability to attract and retain new customers.

In light of the ECJ opinion in Case C-362/14, we offer our customers other methods to enable compliant data transfers from the EEA to the United States and have begun to undertake efforts to conform transfers of Personal Data from the EEA based on current regulatory obligations, the guidance of data protection authorities, and evolving best practices. Despite this, we may be unsuccessful in establishing conforming means or means that are acceptable to our customers of transferring such data from the EEA, including due to ongoing legislative activity, which may vary the current data protection landscape.

We may also 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 the ECJ ruling in Case C-362/14 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 therefore decide not to do business with us.

In addition, data protection regulation is an area of increased focus and changing requirements. On April 27, 2016 the European Union adopted the General Data Protection Regulation 2016/679, or GDPR, that took effect on May 25, 2018, replacing the data protection laws of each European Union member state. The GDPR applies to any company established in the European Union as well as to those outside the European Union if they collect and use personal data in connection with the offering of goods or services to individuals in the European Union or the monitoring of their behavior. The GDPR enhances 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 European Union laws and regulations (and member states' implementations thereof) 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.

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 European Union 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 EEA are conducted in compliance with all applicable regulatory obligations, the guidance of data protection authorities and evolving best practices. We may find it necessary to establish systems to maintain Personal Data originating from the European Union in the EEA, 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 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. If we are unable to comply with our obligations as a HIPAA business associate, we could face substantial civil and even criminal liability. 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.

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 meet the requirements of any of these business associate agreements, we could face contractual liability under the applicable business associate agreement as well as possible civil and criminal liability under HIPAA, 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.

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 we can 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 assure you 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. 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. 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 transactions with U.S. sanction targets, we could inadvertently provide our products to persons prohibited by U.S. sanctions. This could result in negative consequences to us, including government investigations, penalties and harm to our reputation.

We have limited experience with respect to determining the optimal prices for our products.

In the past, we have sometimes 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. 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.

We may face exposure to foreign currency exchange rate fluctuations.

Today, our international customer contracts are primarily 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. Therefore, 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.

Future acquisitions, strategic investments, partnerships or alliances could be difficult to identify and integrate, divert the attention of key 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, 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.

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;
- 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 may suffer.

Our customers may fail to pay us in accordance with the terms of their agreements, necessitating action by us to compel payment.

We typically enter into multiple year, non-cancelable arrangements with our customers. If customers fail to pay us under the terms of our agreements, we may be adversely affected both from the inability to collect amounts due and the cost of enforcing the terms of our contracts, including litigation. The risk of such negative effects increases with the term length of our customer arrangements. Furthermore, some of our customers may seek bankruptcy protection or other similar relief and fail to pay amounts due to us, or pay those amounts more slowly, either of which could adversely affect 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 and Australia, and we intend to expand our international operations. In fiscal 2018 and 2019, our international revenue was 15% and 16%, respectively, 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:

- 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
- 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.

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, therefore, 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. 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 management team has limited experience managing a public company.

Most members of our management team have limited experience managing a publicly-traded company, interacting with public company investors, and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage us as a public company that is subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could harm our business, results of operations and financial condition.

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 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. For example, in May 2014 the Financial Accounting Standards Board issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers (Topic 606) (ASU 2014-09)*, for which certain elements may impact our accounting for revenue and costs incurred to acquire contracts. Under this new standard, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. We adopted this new standard on February 1, 2018, and the adoption did not have a material impact on revenue. The primary impact of the adoption relates to the treatment of the costs incurred to acquire contracts. Refer to Note 2 to our consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended January 31, 2019 for additional information on the new standard and a summary of adjustments to amounts previously reported. 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 those related to revenue recognition, capitalized internal-use software costs, leases, income taxes, non-income taxes, business combination and valuation of goodwill and purchased intangible assets and stock-based compensation. 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 zones. In the event of a major earthquake, hurricane or catastrophic event such as fire, power loss, telecommunications failure, vandalism, cyber-attack, war or terrorist attack, 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 outcome of the U.K. referendum on membership in the EU, 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 United Kingdom's vote to leave the European Union creates an uncertain political and economic environment in the United Kingdom and potentially across other EU member states, which may last for a number of months or years.

The result of the referendum means that the long-term nature of the United Kingdom's relationship with the European Union is unclear and that there is considerable uncertainty as to when any such relationship will be agreed and implemented. 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 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 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.

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.

In addition, 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). The Tax Act makes broad and complex changes to the U.S. tax code, including changes to the uses and limitations of net operating losses. For example, while the Tax Act allows for federal net operating losses incurred during our taxable year ended January 31, 2018 to be carried forward indefinitely, the Tax Act also imposes an 80% limitation, and indefinite carryforward, on our net operating losses generated during our taxable year ended January 31, 2019, and forward. Furthermore, our ability to utilize 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 utilize 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 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 54.2% of the voting power of our capital stock as of October 31, 2019. 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 October 31, 2019, our directors, executive officers, and their affiliates, held in the aggregate 54.2% of 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 a majority of the combined voting power of our common stock and therefore be able to 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 and the warrants issued at the time of the issuance of the 2023 Notes. 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.

We also expect that being a public company and these new rules and regulations will make 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 will become more 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 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
- establish 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, and we may not have the ability to raise the funds necessary to settle for cash conversions of the Notes or to repurchase the Notes for cash upon a fundamental change, which could adversely affect our business and results of operations.

In February 2018, we issued $345.0 million aggregate principal amount of the 2023 Notes in a private offering. The interest rate is fixed at 0.25% per annum and is payable semi-annually in arrears on February 15 and August 15 of each year, beginning on August 15, 2018. In September 2019, the Company repurchased $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. Following the 2023 Notes Partial Repurchase, $120.6 million of the 2023 Notes remain outstanding. In September 2019, concurrent with the 2023 Notes Partial Repurchase, we issued $1,060.0 million aggregate principal amount of the 2025 Notes in a private offering, including the initial purchasers' partial exercise of their option to purchase additional notes. The interest rate on the 2025 Notes is fixed at 0.125% per annum and is payable semi-annually in arrears on March 1 and September 1 of each year, beginning on March 1, 2020.

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.

In addition, 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 therefor 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 thereof.

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 October 31, 2019, and the 2023 Notes are currently convertible at the option of the holders, in whole or in part, between November 1, 2019 and January 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. During the three months ended October 31, 2019, the conditions allowing holders of the 2025 Notes 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 October 31, 2019

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 hedge transactions 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. The convertible note hedge transactions 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 in connection with the 2023 Notes Partial Repurchase, the Company terminated Note Hedges corresponding to approximately 4.6 million shares. As of October 31, 2019, Note Hedges giving the Company the option to purchase approximately 2.5 million shares (subject to adjustment) remain outstanding. In September 2019, and in connection with the 2023 Notes Partial Repurchase, the Company terminated warrants corresponding to approximately 4.6 million shares. As of October 31, 2019, warrants to acquire up to approximately 2.5 million shares (subject to adjustment) remain outstanding.

In addition, in connection with the issuance of the 2025 Notes, we entered into capped call transactions with certain financial institutions (the 2025 Notes Capped Call Counterparties and together with the 2023 Notes Option Counterparties, the Option Counterparties). The capped call transactions are generally expected to reduce potential dilution to our Class A common stock upon any conversion or settlement of the 2025 Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted 2025 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 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 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 utilizing 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. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. For example, the Financial Accounting Standards Board recently published an exposure draft proposing to amend these accounting standards to eliminate the treasury stock method for convertible instruments and instead require application of the "if-converted" method. 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, unless the result would be anti-dilutive.

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
3.1	Amended and Restated Certificate of Incorporation.	Exhibit 3.2 to Form S-1 filed on March 13, 2017
3.2	Amended and Restated Bylaws.	Exhibit 3.4 to Form S-1 filed on March 13, 2017
4.1	Form of Class A Common Stock Certificate.	Exhibit 4.1 to Form S-1 filed on March 13, 2017
4.2	Indenture, dated as of September 9, 2019, between Okta, Inc., and Wilmington Trust, National Association, as trustee.	Exhibit 4.1 to Form 8-K filed September 4, 2019
4.3	Form of 0.125% Convertible Senior Notes due 2025 (included in Exhibit 4.2).	Exhibit 4.2 to Form 8-K filed September 4, 2019
10.1	Form of Capped Call Transaction Confirmation.	Exhibit 10.1 to Form 8-K filed September 4, 2019
10.2	Office Lease Agreement dated December 2, 2017 between the Registrant and KR 100 First Street Owner, LLC, as amended to date.	Filed herewith
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.

December 5, 2019	/s/	William E. Losch
		William E. Losch
		Chief Financial Officer
		(Principal Financial Officer)

FIRST AMENDMENT TO OFFICE LEASE

THIS FIRST AMENDMENT TO OFFICE LEASE (this "**Amendment**") is made and entered into as of August 29, 2019, by and between **KR 100 FIRST STREET OWNER, LLC, a Delaware limited liability company** ("**Landlord**"), and **OKTA, INC., a Delaware corporation** ("**Tenant**").

RECITALS

A. Landlord and Tenant are parties to that certain Office Lease dated December 2, 2017 (the "**Lease**"). Pursuant to the Lease, Landlord has leased to Tenant space currently containing **207,066** rentable square feet (the "**Initial Premises**") in the building located at 100 First Street, San Francisco, California (the "**Building**"), comprised of: (i) 23,289 rentable square feet of space described as Suite 400 on the fourth (4^{th}) floor of the Building; (ii) 23,289 rentable square feet of space described as Suite 500 on the fifth (5^{th}) floor of the Building; (iii) 23,289 rentable square feet of space described as Suite 600 on the sixth (6^{th}) floor of the Building; (iv) 23,289 rentable square feet of space described as Suite 700 on the seventh (7^{th}) floor of the Building; (v) 19,039 rentable square feet of space described as Suite 800 on the eighth (8^{th}) floor of the Building; (vi) 19,039 rentable square feet of space described as Suite 900 on the ninth (9^{th}) floor of the Building; (vii) 19,039 rentable square feet of space described as Suite 1000 on the tenth (10^{th}) floor of the Building; (viii) 19,039 rentable square feet of space described as Suite 1100 on the eleventh (11^{th}) floor of the Building; (ix) 19,060 rentable square feet of space described as Suite 1400 on the fourteenth (14^{th}) floor of the Building; and (x) 18,694 rentable square feet of space described as Suite 1500 on the fifteenth (15^{th}) floor of the Building. Pursuant to the Lease, Landlord has also leased to Tenant space currently containing **47,939** rentable square feet (the "**Must-Take Space**"), comprised of (a) 9,137 rentable square feet of space described as Suite 1200 on the twelfth (12^{th}) floor of the Building; (b) 19,401 rentable square feet of space described as Suite 1600 on the sixteenth (16^{th}) floor of the Building; and (c) 19,401 rentable square feet of space described as Suite 1700 on the seventeenth (17^{th}) floor of the Building. The Must-Take Space together with the Initial Premises are collectively referred to herein as the "**Original Premises**".

B. Tenant has requested that additional space containing **11,361** rentable square feet described as Suite 2400 on the twenty-fourth (24^{th}) floor of the Building, as shown on **Exhibit A** hereto (the "**Expansion Space**"), be added to the Original Premises and that the Lease be appropriately amended and Landlord is willing to do the same on the following terms and conditions.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant agree as follows:

1. **Expansion and Effective Date.** Effective as of the date that is six (6) months after the Expansion Delivery Date (as defined below) (the "**Expansion Effective Date**"), the Initial Premises is increased from **207,066** rentable square feet in the Building to **218,427** rentable square feet in the Building by the addition of the Expansion Space, and from and after the Expansion Effective Date, the Initial Premises and the Expansion Space, collectively, shall be deemed the "Premises", as defined in the Lease, and as used herein. The Lease Term for the Expansion Space shall commence on the Expansion Effective Date and end on the Lease Expiration Date (i.e., October 31, 2028). The Expansion Space is subject to all the terms and conditions of the Lease except as expressly modified herein and except that Tenant shall not be entitled to receive any allowances, abatements or other financial concessions granted with respect to the Original Premises unless such concessions are expressly provided for herein with respect to the Expansion Space. Without limiting the generality of the foregoing, during any period from and after the Expansion Effective Date that Tenant is entitled to provide janitorial services, equipment and supplies to the Expansion Space and Tenant does provide such janitorial services, equipment and supplies to the Expansion Space in

accordance with Section 6.1.5 of the Lease, Tenant shall be entitled to the Janitorial Credit, subject to and in accordance with the terms and conditions of Section 6.1.5 of the Lease.

1.1 Subject to Section 1.4 below, Landlord anticipates delivery of the Expansion Space will occur on September 1, 2019 (the "**Anticipated Expansion Delivery Date**") and Tenant shall accept possession of the Expansion Space as of the date Landlord delivers possession of the Expansion Space to Tenant (the "**Expansion Delivery Date**") in the Delivery Condition as defined in the Work Letter attached to the Lease as Exhibit B (the "**Work Letter**"). If Landlord fails to deliver the Expansion Space within sixty (60) days of the Anticipated Expansion Delivery Date in the Delivery Condition, Tenant shall be entitled to an abatement of Base Rent in an amount equal to the per diem Base Rent for the Expansion Space that would have been applicable to the Expansion Space had Landlord delivered the Expansion Space on the Anticipated Expansion Delivery Date in the Delivery Condition, for every day in the period beginning on the Anticipated Expansion Delivery Date and ending on the Expansion Delivery Date. Any abatement accrued pursuant to this Section 1.1 shall be automatically applied to the first payment of Base Rent due on the Expansion Space Landlord and Tenant acknowledge and agree that: (i) the determination of the date on which Landlord tenders possession of the subject Expansion Space shall be delayed on a day for day basis for each day to the extent such delay is caused by the acts or omissions of Tenant or any Tenant Parties (including without limitation, any failure of Tenant to timely deliver any additional insurance certificate or security required to be delivered with the Expansion Space, as applicable); and (ii) the Anticipated Expansion Delivery Date shall be postponed by the number of days Landlord's delivery of the subject Expansion Space is delayed due to events of Force Majeure. In no event shall Tenant be required to take delivery of the Expansion Space prior to September 1, 2019.

1.2 If Landlord is unable for any reason to deliver possession of the Expansion Space to Tenant on the Anticipated Expansion Delivery Date, such failure shall not affect the validity of this Amendment or the obligations of Tenant hereunder (except as otherwise expressly provided in the Lease, as amended hereby), provided that if such delay is the result of a holdover by the prior tenant, Landlord shall use commercially reasonable efforts to recover possession of the Expansion Space and deliver the same to Tenant. The Expansion Delivery Date shall be delayed to the extent that Landlord fails to deliver possession of the Expansion Space for any reason, including but not limited to, holding over by prior occupants. Except as otherwise expressly provided in Section 1.1 above and Section 1.5 below, any such delay in the Expansion Delivery Date shall not subject Landlord to any liability for any loss or damage resulting therefrom. If the Expansion Delivery Date is delayed, the Lease Expiration Date under the Lease shall not be similarly extended.

1.3 Subject to the applicable express terms of Section 7 below, the Expansion Space (including improvements, if any) shall be accepted by Tenant broom clean and in its "asbuilt" condition and configuration existing on the Expansion Delivery Date. Landlord shall provide an allowance (the "**Expansion Space Improvement Allowance**") in the amount of up to $1,136,100.00 (i.e., $100.00 per rentable square foot of the Expansion Space). Such Expansion Space Improvement Allowance shall be applied toward the cost of initial improvements to be performed in the Expansion Space (the "**Expansion Space Improvements**") in accordance with the TCCs of the Work Letter. The Expansion Space Improvement Allowance shall be disbursed during construction of the Expansion Space Improvements in the same manner and subject to the same conditions and limitations as applicable to the disbursement of the "Improvement Allowance" pursuant to the Work Letter, except as modified by Section 8 hereof. A Coordination Fee (as defined in the Work Letter) of Eight Thousand Two Hundred and No/100 Dollars ($8,200.00) shall be payable to Landlord in connection with the Expansion Space Improvements.

1.4 Subject to the terms of this Section 1.4, as of the later of (i) the applicable Expansion Delivery Date; or (ii) the date that is one (1) business day following the date that Tenant has delivered all prepaid rental and insurance certificates required hereunder, Landlord grants Tenant the right to enter the subject Expansion Space at Tenant's sole risk, solely for the purpose of performing the Expansion Space Improvements and installing telecommunications and data cabling, equipment, furnishings and other personalty, in accordance with the terms and conditions of this Amendment and the Lease. In addition, upon Tenant's Substantial Completion of the Expansion Space Improvements, Tenant shall have the right to conduct business operations within the Premises prior to the Expansion Effective Date, subject to and in accordance with the terms of this Section 1.4. Such possession prior to the Expansion Effective Date shall be subject to all of the terms and conditions of the Lease, as amended, except that Tenant shall not be required to pay Base Rent or Tenant's Share of Direct Expenses applicable to the Expansion Space with respect to the period of time prior to the Expansion Effective Date during which Tenant occupies the Expansion Space solely for such purposes; provided, however, that Tenant shall be obligated to pay (a) the costs and expenses, calculated in accordance with the TCCs of Section 6.2 of the Lease, associated with any HVAC provided to Tenant after Building Hours (as defined below) at Tenant's request and (b) Landlord's reasonable costs and expenses to provide any additional Building security after Building Hours required due to any reasonable increased risk to property at the

Building from Tenant's construction activities as mutually agreed upon by Landlord and Tenant or as may otherwise be required by applicable Law. Notwithstanding the foregoing, if Tenant takes possession of any portion of the Expansion Space before the applicable Expansion Effective Date for the purpose of conducting Tenant's business therein, such possession shall be subject to the terms and conditions of the Lease, as amended, and Tenant shall pay Base Rent and Tenant's Share of Direct Expenses for the Expansion Space and any other charges payable hereunder commencing on the date on which Tenant commenced conduct of business in the Expansion Space. Said early possession shall not advance the Lease Expiration Date.

1.5 In addition to any abatement accrued pursuant to Section 1.1 above, in the event the Expansion Delivery Date with respect to the Expansion Space has not occurred on or before May 1, 2020 (the "**Outside Expansion Space Date**"), Tenant, as its sole remedy, may terminate this Amendment, solely with respect to the Expansion Space (in which case, the Lease, as amended hereby, solely with respect to the Expansion Space, shall terminate), by giving Landlord written notice of termination on or before the earlier to occur of: (i) five (5) business days after the Outside Expansion Space Date; and (ii) the Expansion Delivery Date. In such event, (A) the Lease shall be deemed terminated solely with respect to the Expansion Space (but shall continue in full force and effect as to the remaining portions of the Premises) and the provisions of this Amendment relating to the Expansion Space shall be null and void; (B) the required L-C Amount under the Lease shall be reduced by the portion of the Additional L-C Amount applicable to the Expansion Space (as set forth in Section 4 below); and (C) the Expansion Space shall be deemed to be a Potential First Offer Space and subject to the TCCs of Section 1.3 of the Lease; provided, however, that, if the Expansion Space is subsequently deemed a Potential First Offer Space, then in such event, the First Offer Rent for the Expansion Space shall be the lesser of (I) Market Rent and (II) the then-current Base Rent payable for the Expansion Space under this Amendment. Landlord and Tenant acknowledge and agree that the Outside Expansion Space Date shall be postponed by the number of days Landlord's delivery of the Expansion Space is delayed due to events of Force Majeure.

2. **Must-Take Space.** As set forth in the Lease, Andersen Tax LLC, a Delaware limited liability company (the "**Existing Must-Take Space Tenant**"), is the current tenant of the Must-Take Space. Landlord represents that the Existing Must-Take Space Tenant did not exercise its option to renew the term for its lease of the Must-Take Space. Accordingly, Landlord anticipates that Landlord will deliver the Must-Take Space in its entirety to Tenant on February 1, 2020.

3. **Expansion Space Base Rent.** As of the Expansion Effective Date, the schedule of Base Rent payable with respect to the Expansion Space for the balance of the original Lease Term is the following.

Period	Rentable Square Footage	Annual Base Rent*	Monthly Installment of Base Rent*	Annual Rental Rate per Rentable Square Foot*
Expansion Space Lease Year 1	11,361	$1,011,129.00	$84,260.75	$89.00
Expansion Space Lease Year 2	11,361	$1,041,462.87	$86,788.57	$91.67
Expansion Space Lease Year 3	11,361	$1,072,706.76	$89,392.23	$94.42**
Expansion Space Lease Year 4	11,361	$1,104,887.96	$92,074.00	$97.25**
Expansion Space Lease Year 5	11,361	$1,138,034.60	$94,836.22	$100.17**
Expansion Space Lease Year 6	11,361	$1,172,175.64	$97,681.30	$103.18**
Expansion Space Lease Year 7	11,361	$1,207,340.91	$100,611.74	$106.27**
Expansion Space Lease Year 8	11,361	$1,243,561.14	$103,630.10	$109.46**
Expansion Space Lease Year 9	11,361	$1,280,867.97	$106,739.00	$112.74**

All such Base Rent shall be payable by Tenant in accordance with the terms of the Lease, as amended hereby.

For purposes of the foregoing schedule, "Expansion Space Lease Year 1" shall mean the twelve (12) calendar month period commencing on the Expansion Effective Date and ending on the last day of the month in which the first anniversary of the Expansion Effective Date occurs (or if the Expansion Effective Date is the first day of a calendar month, then the first Expansion Space Lease Year shall commence on the Expansion Effective Date and end on the day immediately preceding the first anniversary of the Expansion Effective Date), and the second and each succeeding Expansion Space Lease Year shall commence on the first day of the next calendar month; and further provided that the last Expansion Space Lease Year shall end on the Lease Expiration Date.

* The initial Annual Base Rent amount was calculated by multiplying the initial Annual Rental Rate per Rentable Square Foot amount by the number of rentable square feet of space in the Expansion Space, and the initial Monthly Installment of Base Rent amount was calculated by dividing the initial Annual Base Rent amount by twelve (12). Both Tenant and Landlord acknowledge and agree that multiplying the Monthly Installment of Base Rent amount by twelve (12) does not always equal the Annual Base Rent amount. The calculation of each Annual Base Rent amount reflects an annual increase of three percent (3%) commencing on the first (1st) day of Expansion Space Lease Year 2 and each Monthly Installment of Base Rent amount was calculated by dividing the corresponding Annual Base Rent amount by twelve (12).

** The amount(s) identified in the column entitled "Annual Rental Rate per Rentable Square Foot" are rounded amounts provided for informational purposes only.

4. **Letter of Credit.** Landlord is currently holding a letter of credit (the "**Letter of Credit**") in the amount of $8,000,000.00 (the "**L-C Amount**") as collateral for Tenant's performance of its
obligations under the Lease, as amended hereby. Subject to the remaining terms of this Section 4, Tenant shall deliver to Landlord on or before December 15, 2019, an amendment to the existing
Letter of Credit (the "**Additional Expansion L-C Amendment**"), increasing the L-C Amount by an amount equal to $320,217.00 (the "**Additional L-C Amount**"); provided, however, that Tenant

shall not be required to deliver the Additional Expansion L-C Amendment, if, as of October 31, 2019 (the "**Expansion L-C Reference Date**"), Tenant's Financial Information reflects Tenant's satisfaction of the Must-Take L-C Withdrawal Conditions.

In lieu of providing Landlord with the Additional Expansion L-C Amendment as provided above and/or the 25th Floor Must-Take L-C Amendment (as defined below), if applicable, Tenant may instead deliver to Landlord a replacement letter of credit (a "**Replacement Letter of Credit**") in the then required L-C Amount. Any amendment to the existing Letter of Credit or Replacement Letter of Credit provided to Landlord pursuant to this Section 4 shall comply with the terms of Article 21 of the Lease.

5. **Tenant's Share.** For the period commencing with the Expansion Effective Date and ending on the Lease Expiration Date, Tenant's Share for the Expansion Space is **2.51%** of the Office Space. Tenant's Share for the Expansion Space and the Original Premises (which, by definition, includes the Must-Take Space once added) is, collectively, **58.79%** of the Office Space.

6. **Additional Rent.** For the period commencing with the Expansion Effective Date and ending on the Lease Expiration Date, Tenant shall pay for Tenant's Share of Direct Expenses applicable to the Expansion Space in accordance with the terms of the Lease, as amended hereby; provided, however, during such period, the Base Year for the computation of Tenant's Share of Direct Expenses solely with respect to the Expansion Space is calendar year 2020; provided, further, however, that if the actual Expansion Effective Date occurs after September 30th, 2020, the Base Year for the computation of Tenant's Share of Direct Expenses solely with respect to the Expansion Space shall be calendar year 2021.

7. **Improvements.**

7.1 **Condition of Expansion Space.** Except as specifically set forth in this Amendment and the Work Letter, Tenant shall accept the Expansion Space in its existing "as-is" condition and Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Expansion Space. However, notwithstanding the foregoing, Landlord agrees that the Building Systems serving the Expansion Space shall be in good working order as of the date Landlord delivers possession of the Expansion Space to Tenant. Except to the extent caused by a BS/BS Exception or otherwise arising in connection with any Alterations performed by or on behalf of Tenant, if such Building Systems serving the Expansion Space are not in good working order as of the date possession of the Expansion Space is delivered to Tenant, Landlord shall be responsible for repairing the same at Landlord's sole cost and expense, provided that Tenant has delivered written notice to Landlord with respect to any Building Systems in the Expansion Space, no later than forty-five (45) days following the Expansion Effective Date.

7.2 **Responsibility for Improvements to Expansion Space.** Landlord shall perform the Landlord Work (as defined in the Work Letter) in accordance with the terms of the Work Letter, as amended by Section 8 below.

8. **<u>Work Letter Revisions.</u>** The construction of the Expansion Space Improvements shall be governed by the terms of the Work Letter and not the terms of Article 8 of the Lease. Accordingly, for purposes of this Amendment, (i) all references in the Work Letter to "Improvements" shall mean and refer to the "Expansion Space Improvements", (ii) all references in the Work Letter to "Must-Take Space" and "Must-Take Space Improvements" shall mean and refer to the "Expansion Space" and "Expansion Space Improvements", respectively, (iii) all references in the Work Letter to "Improvement Allowance" shall mean the "Expansion Space Improvement Allowance", (iv) all references in the Work Letter to "Delivery Date" shall mean

"Expansion Delivery Date", (v) all references in the Work Letter to "Lease Commencement Date" shall mean "Expansion Effective Date", (vi) the third to final sentence of Section 2.2.2.1 of the Work Letter shall be revised to read as follows: "Within ten (10) days thereafter, Landlord shall deliver a check made payable to the applicable Contractor in payment of the lesser of: (A) the amounts so requested by Tenant, as set forth in this <u>Section 2.2.2.1</u> above, less a ten percent (10%) retention (the aggregate amount of such retentions to be known as the "**Final Retention**"), and (B) the balance of any remaining available portion of the applicable Expansion Space Improvement Allowance (excluding the Final Retention), provided that Landlord does not dispute any request for payment based on non-compliance of any work with the Approved Working Drawings, as that term is defined in <u>Section 3.4</u> below, or due to any substandard work, or for any other reason.", (vii) the phrase "Subject to the provisions of this Work Letter, a check for the Final Retention payable jointly to Tenant and the applicable Contractor, or directly to such Contractor at Landlord's reasonable discretion" at the start of Section 2.2.2.2 of the Work Letter shall be revised to read as follows: "Subject to the provisions of this Work Letter, a check for the Final Retention made payable to the applicable Contractor", (viii) Section 4.2.1.2 of the Work Letter shall be deleted in its entirety, (ix) the reference to "One Hundred Fifty Thousand and 00/100 Dollars ($150,000.00)" in the second sentence of Section 4.2.2.1 shall be replaced by the following: "Eight Thousand Two Hundred and 00/100 Dollars ($8,200.00)", (x) the reference to "634 Second Street, San Francisco, California, as designated by Landlord" in Section 4.2.5 shall be deleted in its entirety, (xi) Eddie Perez shall be removed as a Landlord's representative from Section 6.2 of the Work Letter, (xii) the Construction Risk Alternative shall not apply to the Expansion Space Improvements and Landlord shall have no right to deliver Landlord's Construction Risk Notice with respect to such Expansion Space Improvements, (xiii) the references to "IA Interior Architect" in Section 3.1 of the Work Letter shall be replaced with "M Moser Associates" as an Architect approved by Landlord; (xiv) Section 1.2.4 of the Work Letter shall be deleted in its entirety; and (xv) Section 1.2.5 of the Work Letter shall be replaced by the following: "Landlord's failure to substantially complete the Required Compliance Corrections within the timeframe set forth in Section 1.2.3 above shall be deemed a "Landlord Caused Delay", as that term is defined in Section 5.1 below". Notwithstanding anything to the contrary contained in the Work Letter, Landlord shall make all payments from the Expansion Space Improvement Allowance to the applicable Contractors first and thereafter any remaining amounts shall be the responsibility of Tenant, it being the intent of the parties that no funds or payment shall be made on a *pari passu* basis.

9. **<u>Landlord's Consent to Assignment or Sublease of Suite 2500</u>.** Landlord represents that Landlord, as landlord, and AppsFlyer Inc., a Delaware corporation (including any successors or assigns, "**AppsFlyer**"), as tenant, are parties to that certain Office Lease dated August 18, 2017 (the "**AppsFlyer Lease**") for 11,635 rentable square feet of space described as Suite 2500 ("**Suite 2500**") on the twenty-fifth (25^{th}) floor of the Building. Subject to Landlord's Recapture Right (as defined in <u>Section 10.1</u> below) set forth in the AppsFlyer Lease, provided that (i) Tenant is not in default beyond notice and cure periods under the Lease, as amended hereby; and (ii) Tenant delivers a fully executed assignment agreement fully assigning all of AppsFlyer's right, title and interest in and to the AppsFlyer Lease to Tenant or a fully executed sublease agreement, as applicable, Landlord shall consent to such assignment or sublease, as applicable. Upon Landlord's request, Tenant agrees to execute a commercially reasonable consent agreement.

10. **<u>Contingent 25^{th} Floor Must-Take Space</u>.**

10.1 If, (i) in connection with a proposed assignment, sublease or other transfer by AppsFlyer for which Landlord has a right to recapture the subject space, Landlord, in its sole and absolute discretion and pursuant to its rights contained in the applicable lease, at any time during the initial Lease Term, exercises its recapture right set forth in the AppsFlyer Lease (the "**Recapture Right**"), or (ii) the AppsFlyer Lease is terminated for any reason other than Landlord's exercise of the Recapture Right prior to its stated termination date of June 30, 2025 (the "**AppsFlyer Lease Early Termination**"), then Tenant shall be required to lease from Landlord and Landlord shall be required to lease to Tenant Suite 2500 (hereinafter, the "**25^{th} Floor Must-Take Space**"). Landlord covenants and agrees to not extend the term for the AppsFlyer Lease beyond its present termination date existing as of the date hereof which Landlord represents and warrants to Tenant is June 30, 2025.

Notwithstanding the above, if Landlord would be entitled to exercise the Recapture Right over all or any portion of the 25th Floor Must-Take Space in connection with a proposed assignment, sublease or other transfer to Tenant pursuant to this Section 10, Tenant, prior to entering into a sublease or assignment with AppsFlyer, shall have the right to advise Landlord (the "**AppsFlyer Prior Notice**") of its intention to sublet the 25th Floor MustTake Space or assume the AppsFlyer Lease. In the AppsFlyer Prior Notice, Tenant shall describe whether Tenant intends to assume the AppsFlyer Lease or whether Tenant intends to sublease all or a portion of the 25th Floor Must-Take Space (and the portion of the 25th Floor Must-Take Space Tenant intends to sublease), the agreed upon economic terms (e.g., rent, tenant improvements, allowances and concessions) and the expected effective date of the proposed assignment or sublease. Landlord, by providing notice to Tenant within thirty (30) days after receipt of the AppsFlyer Prior Notice, shall notify Tenant of whether Landlord shall or shall not exercise the Recapture Right over the subject portion of the 25th Floor Must-Take Space, and by delivery of such notice shall covenant and agree to exercise the Recapture Right as of the effective date set forth in the AppsFlyer Prior Notice. If Landlord fails to so notify Tenant within such thirty (30) day period after the AppsFlyer Prior Notice, and if Tenant, within ninety (90) days after the earlier of (i) the date Landlord notifies Tenant Landlord shall not recapture the subject portion of the 25th Floor Must-Take Space, and (ii) the expiration of the thirty (30) day period, enters into the type of assignment or sublease described in its AppsFlyer Prior Notice with respect to the portion of the Premises described in the AppsFlyer Prior Notice (which fully executed sublease or assignment shall be tendered to Landlord no later than ten (10) business days following mutual execution thereof), then Landlord shall not have the right to recapture such portion of the Premises in connection with such assignment or sublease.

10.2 If Landlord exercises the Recapture Right or an AppsFlyer Lease Early Termination occurs, Landlord shall provide notice to Tenant (the "**25th Floor Must-Take Notice**"), which 25th Floor Must-Take Notice shall include Landlord's determination of the Market Rent payable by Tenant for the 25th Floor Must-Take Space during the 25th Floor MustTake Term (as defined below) in accordance with Exhibit H to the Lease, no later than sixty (60) days prior to the date Landlord anticipates delivery of the 25th Floor Must-Take Space (the "**Anticipated 25th Floor Must-Take Delivery Date**"). Tenant shall accept possession of the 25th Floor Must-Take Space as of the date Landlord delivers possession of the 25th Floor Must-Take Space to Tenant in the 25th Floor Must-Take Delivery Condition (as defined below) (the "**25th Floor Must-Take Delivery Date**"); provided, however, that in no event shall the 25th Floor Must-Take Delivery Date occur prior to the later of (a) February 1, 2020, and (b) the Anticipated 25th Floor Must-Take Delivery Date. The Term with respect to the 25th Floor Must-Take Space (the "**25th Floor Must-Take Term**") shall commence (the "**25th Floor Must-Take Effective Date**") on the earlier of (i) the date that is sixty (60) days after the 25th Floor Must-Take Delivery Date; or (ii) the date on which Tenant first conducts business operations in any portion of the 25th Floor Must-Take Space, and end, unless sooner terminated pursuant to the terms of the Lease, as amended hereby, on the Lease Expiration Date (i.e., October 31, 2028). Notwithstanding the foregoing, in the event that based upon the timing of events, the 25th Floor Must-Take Effective Date is later than October 31, 2023, the 25th Floor Must-Take Term shall be sixty (60) months from the 25th Floor Must-Take Effective Date. Accordingly, the parties agree that the 25th Floor Must-

Take Term may expire later than the Lease Expiration Date with respect to the remainder of the Premises and that such later expiration of the 25th Floor Must-Take Term shall not serve to extend the Lease Expiration Date with respect to the remainder of the Premises.

10.3 As of the 25th Floor Must-Take Effective Date, the 25th Floor Must-Take Space shall become part of the Premises and the rentable square footage of the Premises shall be increased to include the 25th Floor Must-Take Space. Tenant's Share for the 25th Floor Must-Take Space shall be 2.57% of the Office Space. The 25th Floor Must-Take Space shall be subject to all the terms and conditions of the Lease, as amended hereby, except as expressly modified herein and except that Tenant shall not be entitled to receive any allowances, abatements or other financial concessions granted with respect to the Original Premises or the Expansion Space except as expressly provided in this Section 10. Except as otherwise expressly set forth below, if an allowance is provided with respect to the 25th Floor Must-Take Space, any unused portion thereof remaining after the eighteenth (18th) month following the 25th Floor Must-Take Effective Date (the "**25th Floor Must-Take Improvement Allowance Sunset Date**") shall remain with Landlord and Tenant shall have no further right thereto; provided, however, to the extent Tenant timely requested disbursement for any allowance items for the 25th Floor Must-Take Space prior to the 25th Floor Must-Take Improvement Allowance Sunset Date, Landlord shall provide such disbursement. Notwithstanding anything to the contrary herein, Tenant's failure to request disbursement of any allowance provided by Landlord for the 25th Floor Must-Take Space by the 25th Floor Must-Take Improvement Allowance Sunset Date shall not be deemed a Tenant default under the Lease. Landlord and Tenant acknowledge and agree that the 25th Floor Must-Take Improvement Allowance Sunset Date shall be postponed by the number of days that substantial completion of improvements to the 25th Floor Must-Take Space is delayed due to a Completion Delay (as defined in Exhibit B to the Lease).

10.4 The Base Rent payable by Tenant during the 25th Floor Must-Take Term shall be equal to the Market Rent (as that term is defined in, and determined pursuant to, Exhibit H to the Lease). For purposes of this Section 10, all references to the "Premises" in Exhibit H to the Lease shall mean the 25th Floor Must-Take Space. In the event that Tenant does not agree with Landlord's determination of the Rent payable by Tenant for the 25th Floor Must-Take Space (the "**25th Floor Must-Take Rent**") as set forth in Landlord's 25th Floor Must-Take Notice, then within fifteen (15) days after Landlord's delivery of the 25th Floor Must-Take Notice, Tenant shall deliver to Landlord Tenant's calculation of the Market Rent (the "**Tenant's 25th Floor Must-Take Rent Calculation**").

If Tenant timely delivers a Tenant's 25th Floor Must-Take Rent Calculation to Landlord, and unless Landlord notifies Tenant in writing within five (5) business days that Landlord accepts Tenant's 25th Floor Must-Take Rent Calculation, the parties shall follow the same procedure set forth in Section 2.2.4 of the Lease and the Market Rent for the 25th Floor Must-Take Space shall be determined in accordance with the terms of Section 2.2.4 of the Lease, provided that (A) all references in Section 2.2.4 of the Lease to (i) "Option Rent" shall be deemed to mean the "25th Floor Must-Take Rent", (ii) "Option Term" shall be deemed to mean the "25th Floor Must-Take Term", and (iii) the "Outside Agreement Date" shall be deemed to mean the date that is forty-five (45) days after the date Landlord delivers the Landlord 25th Floor Must-Take Notice to Tenant; and (B) in the event that the 25th Floor Must-Take Rent shall not have been determined pursuant to the terms of Section 2.2.4 of the Lease prior to the commencement of the 25th Floor Must-Take Term, Tenant shall be required to pay Base Rent for the 25th Floor Must-Take Space based on the Annual Rental Rate per Rentable Square Foot then in effect for the Expansion Space, and upon the final determination of the 25th Floor Must-Take Rent, the payments made by Tenant shall be

reconciled with the actual amounts due, and the appropriate party shall make any corresponding payment to the other party within thirty (30) calendar days after the 25th Floor Must-Take Rent has finally been determined. The terms of Section 3.2 of the Lease shall be inapplicable in connection with the 25th Floor Must-Take Space. If Tenant fails to timely deliver a Tenant's 25th Floor Must-Take Rent Calculation, the 25th Floor Must-Take Rent shall be as set forth in the 25th Floor Must-Take Notice delivered by Landlord.

10.5 Tenant shall pay Tenant's Share of Direct Expenses for the 25th Floor Must-Take Space on the same terms and conditions set forth in the Lease, as amended hereby; provided that the Base Year for the computation of Tenant's Share of Direct Expenses solely with respect to the 25th Floor Must-Take Term shall be either (i) the calendar year in which the 25th Floor Must-Take Term commences, if the 25th Floor Must-Take Term commences on or before September 30th of such calendar year, or (ii) the calendar year immediately subsequent to the calendar year in which the 25th Floor Must-Take Term commences, if the 25th Floor Must-Take Term commences after September 30th of such calendar year. In addition, if the Base Year is determined pursuant to subpart (i) above, Tenant shall not be required to pay Tenant's Share of Direct Expenses applicable to the 25th Floor Must-Take Space during the first twelve (12) full Lease Months of the 25th Floor Must-Take Term.

10.6 Subject to the terms of Section 4 above and this Section 10, Tenant shall deliver to Landlord on or before the 25th Floor Must-Take Delivery Date, an amendment to the existing Letter of Credit (the "**25th Floor Must-Take L-C Amendment**"), increasing the L-C Amount by an amount equal to three (3) months of the Base Rent payable during the last rental period of the 25th Floor Must-Take Term; provided, however, that Tenant shall not be required to deliver the 25th Floor Must-Take L-C Amendment if, as of the fiscal quarter immediately prior to the anticipated 25th Floor Must-Take Delivery Date based on Landlord's 25th Floor Must-Take Notice (the "**25th Floor Must-Take L-C Reference**

Date"), Tenant's Financial Information satisfies the Must-Take L-C Withdrawal Conditions (as applied to the 25th Floor Must-Take Space).

10.7 The 25th Floor Must-Take Space (including improvements, if any) shall be accepted by Tenant broom clean and in its "as-built" condition and configuration existing on the 25th Floor Must-Take Delivery Date (the "**25th Floor Must-Take Delivery Condition**"). However, notwithstanding the foregoing, Landlord agrees that the Building Systems serving the 25th Floor Must-Take Space shall be in good working order as of the 25th Floor Must-Take Delivery Date. Except to the extent caused by a BS/BS Exception (as defined in Article 7 of the Lease) or otherwise arising in connection with any Alterations performed by or on behalf of Tenant, if such Building Systems are not in good working order as of the 25th Floor Must-Take Delivery Date, Landlord shall be responsible for repairing the same at Landlord's sole cost and expense, provided that Tenant has delivered written notice to Landlord no later than forty-five (45) days following the 25th Floor Must-Take Effective Date. Landlord shall not be required to provide any improvement allowance for the 25th Floor Must-Take Space, except to the extent tenants leasing space in Comparable Transactions receive an allowance pursuant to the definition of Market Rent defined in Exhibit H to the Lease. The construction of the initial improvements to the 25th Floor Must-Take Space shall be governed by the terms of the Work Letter attached as Exhibit B to the Lease (including Section 1 thereof) and not, except as otherwise set forth in the Work Letter, the terms of Article 8 of the Lease.

10.8 Landlord shall prepare an amendment (the "**25th Floor Must-Take Amendment**") to reflect the 25th Floor Must-Take Effective Date and the changes in Base Rent, rentable square footage of the Premises, Tenant's Share, any improvement allowance and other appropriate terms. A copy of the 25th Floor Must-Take Amendment shall be sent to Tenant within a reasonable time after the 25th Floor Must-Take Effective Date, and Tenant shall execute and return the 25th Floor Must-Take Amendment to Landlord within ten (10) business days thereafter, but Tenant's leasing of the 25th Floor Must-Take Space in accordance with this Section 10 shall be fully effective whether or not the 25th Floor MustTake Amendment is executed.

10.9 Without limiting the generality of the foregoing, during any period from and after the 25th Floor Must-Take Effective Date that Tenant is entitled to provide janitorial services, equipment and supplies to the 25th Floor Must-Take Space and Tenant does provide such janitorial services, equipment and supplies to the 25th Floor Must-Take Space in accordance with Section 6.1.5 of the Lease, Tenant shall be entitled to the Janitorial Credit, subject to and in accordance with the terms and conditions of Section 6.1.5 of the Lease.

10.10 If Landlord fails to tender possession of the 25th Floor Must-Take Space to Tenant in the 25th Floor Must-Take Delivery Condition on or before the date that is one hundred twenty (120) days following the Anticipated 25th Floor Must-Take Delivery Date (the "**25th Floor Must-Take Required Delivery Date**"), Tenant shall be entitled to an abatement of Base Rent applicable to the 25th Floor Must-Take Space which shall be automatically applied to the next payment(s) of Base Rent due on the Premises following the 25th Floor MustTake Required Delivery Date in an amount equal to the per diem Base Rent for the 25th Floor Must-Take Space for every day in the period beginning on the 25th Floor Must-Take Required Delivery Date and ending on the 25th Floor Must-Take Delivery Date. In addition, if Landlord fails to tender possession of the 25th Floor Must-Take Space as of the date that is two hundred forty (240) days after the Anticipated 25th Floor Must-Take Delivery Date (the "**Outside 25th Floor Must-Take Delivery Date**"), Tenant, as its sole remedy, may terminate the Lease, solely with respect to the 25th Floor Must-Take Space as of the Outside 25th Floor Must-Take Delivery Date by giving Landlord written notice of termination on or before the earlier to occur of: (a) ten (10) business days after the Outside 25th Floor Must-Take Delivery Date; or (b) the 25th Floor Must-Take Delivery Date. In such event, the Lease shall be deemed terminated solely with respect to the 25th Floor Must-Take Space, and shall continue in full force and effect as to the remaining portions of the Premises. In the event of such termination, the "Premises", as used herein shall be deemed to mean the Premises less the 25th Floor Must-Take Space, and the terms of this Section 10 shall be null and void and of no further force and effect; provided, however, that if Tenant exercises its termination right as to the 25th Floor MustTake Space as provided herein, then following such termination, such 25th Floor MustTake Space shall be deemed Potential First Offer Space and provided further that the First Offer Rent for any such Potential First Offer Space shall be the lesser of (A) Market

Rent and (B) the then-current Base Rent for the Expansion Space. Landlord and Tenant shall enter into an amendment to this Lease modifying the rentable square footage of the Premises, Tenant's Share, and other appropriate terms to document the termination of the Lease as to the 25th Floor Must-Take Space as provided herein. Landlord and Tenant acknowledge and agree that: (i) the determination of the date on which Landlord tenders possession of the 25th Floor Must-Take Space shall be delayed on a day for day basis for each day to the extent such delay is caused by the acts or omissions of Tenant or any Tenant Parties; and (ii) the 25th Floor Must-Take Required Delivery Date and the Outside 25th Floor Must-Take Delivery Date shall each be postponed by the number of days Landlord's delivery of the 25th Floor Must-Take Space is delayed due to events of Force Majeure.

11. **Stipulation of Rentable Square Feet of Expansion Space and Building.** For purposes of this Amendment, "rentable square feet" of the Expansion Space and the 25th Floor Must-Take Space shall be deemed as set forth in Recital B and Section 9, respectively. Neither the Expansion Space nor the 25th Floor Must-Take Space shall be subject to remeasurement during the initial Lease Term.

12. **Other Pertinent Provisions.** Landlord and Tenant agree that, effective as of the date of this Amendment (unless different effective date(s) is/are specifically referenced in this Section), the Lease shall be amended in the following additional respects:

12.1 **Insurance.** Tenant's insurance required under Section 10.3 of the Lease ("**Tenant's Insurance**") shall include the Expansion Space as of the earlier of (i) the date on which Tenant first accesses the Expansion Space pursuant to this Amendment; or (ii) the Expansion Effective Date (the "**Expansion Space Insurance Start Date**"). Tenant shall provide Landlord with a certificate of insurance, in form and substance satisfactory to Landlord and otherwise in compliance with Section 10.5 of the Lease, evidencing that Tenant's Insurance covers the Expansion Space, on or before the Expansion Space Insurance Start Date, and thereafter as necessary to assure that Landlord always has current certificates evidencing Tenant's Insurance.

12.2 **Parking.** Tenant may elect to rent from Landlord, on a monthly basis:

(A) up to sixteen (16) additional valet parking passes (the "**Must-Take Space Parking Allocation**") which parking passes shall pertain to the Parking Garage and be effective concurrent with the Must-Take Effective Date;

(C) up to four (4) additional valet parking passes (the "**25th Floor Must-Take Space Parking Allocation**") which parking passes shall pertain to the Parking Garage and be effective concurrent with the 25th Floor Must-Take Effective Date; and/or

(D) up to three (3) additional valet parking passes (the "**Expansion Space Parking Allocation**") which parking passes shall pertain to the Parking Garage and be effective concurrent with the Expansion Effective Date.

The Expansion Space Parking Allocation, Must-Take Space Parking Allocation, 25th Floor Must-Take Space Parking Allocation and Tenant's Initial Parking Allocation are sometimes collectively referred to herein as "**Tenant's Parking Allocation**".

Within thirty (30) days after the Expansion Effective Date, the Must-Take Effective Date or the 25th Floor Must-Take Effective date, as applicable (each such date is hereinafter referred to as the "**Additional Parking Election Deadline**"), Tenant shall deliver to Landlord a Parking Election Notice (as defined in Section 28.1 of the Lease), specifying how many of the parking passes in the Must-Take Space Parking Allocation, the 25th Floor Must-Take Space Parking Allocation or the Expansion Space Parking Allocation, as applicable, at that time Tenant has elected to rent for the remainder of the Lease Term. If Tenant fails to deliver the Parking Election Notice on or before the Additional Parking Election Deadline, then Tenant shall be deemed to have elected to rent all of the parking passes in the Must-Take Space Parking Allocation, the 25th Floor Must-Take Space Parking Allocation or the Expansion Space Parking Allocation, as applicable. Tenant's leasing of any or all of the parking passes in the Must-Take Space Parking Allocation, the 25th Floor Must-Take Space Parking Allocation or the Expansion Space Parking Allocation, as applicable, shall be subject to the terms and conditions of Article 28 of the Lease. The fifth

(5th) sentence of Section 28.1 of the Lease is hereby deleted in its entirety. Notwithstanding anything in the Lease to the contrary, if Tenant has reduced the number of parking passes allocated to Tenant in accordance with terms and conditions of the Lease, as amended hereby, (including by means of a Parking Reduction Notice, as defined in Section 28.1 of the Lease), then Tenant may provide Landlord with written notice (a "**Parking Increase Notice**") once per year on or before the date that is sixty (60) days prior to each annual anniversary of the Phase II Premises Lease Commencement Date that Tenant elects to increase the number of parking passes rented from Landlord (provided that in no event shall Tenant be entitled to more parking passes than Tenant's Parking Allocation

hereunder) and, provided that such parking passes are Available (as defined below), thereafter Landlord shall lease the parking passes set forth in the Parking Increase Notice to Tenant effective on such annual anniversary of the Phase II Premises Lease Commencement Date. In the event that any requested parking passes in Tenant's Parking Increase Notice are not Available and, as a result thereof, Landlord is unable to provide Tenant with additional parking passes previously surrendered by Tenant, such inability shall not subject Landlord to any liability for any loss or damage resulting therefrom or entitle Tenant to any credit, abatement or adjustment of Rent or other sums payable under the Lease. For purposes of this Section 12.2, a parking pass shall be deemed to be "**Available**" if such parking pass is not then being rented by a tenant of the Building.

12.3 **Extension Option.**

12.3.1 Landlord and Tenant acknowledge and agree that Tenant's option to extend the Lease Term, set forth in Section 2.2 of the Lease shall apply to the Original Premises (including the Must-Take Space), the Expansion Space and the 25th Floor Must-Take Space (if applicable), and that, subject to and in accordance with the terms of Section 2.2 of the Lease, as amended by this Section 12.3, Tenant shall have the right to extend the Lease Term with respect to each of the Expansion Space and the 25th Floor Must-Take Space, individually, or both the Expansion Space and the 25th Floor Must-Take Space, to be coterminous with the Option Term (as defined in Section 2.2.1 of the Lease). Notwithstanding anything to the contrary contained in the Lease, as amended hereby, if Tenant elects, in Tenant's sole discretion, to exercise its option to extend the Lease Term with respect to the Expansion Space and/or the 25th Floor Must-Take Space, the determination of continuous floors in Section 2.2.1(iii) of the Lease from the bottom up, or from the top down, as applicable, shall be deemed to include the Expansion Space and/or the 25th Floor Must-Take Space (as applicable), and accordingly Tenant may elect to extend the Lease Term (from the top down, or from the bottom up) from either the Expansion Space or the 25th Floor Must-Take Space, or both, provided that if

Tenant exercises Tenant's option to extend the Lease Term with respect to the Expansion Space and/or the 25th Floor Must-Take Space, Tenant must also exercise its option to extend the Lease Term as to the full floors below the Expansion Space and/or the 25th Floor Must-Take Space, as applicable. As a clarification only, the reference to "continuous" in clause (iii) of Section 2.2.1 of the Lease shall mean continuous as among leased floors in the Building that comprise the Premises (and shall not be interpreted to mean contiguous floors within the Building that include floors that do not comprise the Premises), provided that (x) if Tenant exercises its option to extend the Lease Term with respect to only the Expansion Space, then the 25th Floor Must-Take Space shall not be considered continuous, (y) if Tenant exercises its option to extend the Lease Term with respect to only the 25th Floor Must-Take Space, then the Expansion Space shall not be considered continuous, or (z) if Tenant does not exercise its option to extend the Lease Term with respect to both the Expansion Space and the 25th Floor Must-Take Space, then neither the 25th Floor Must-Take Space nor the Expansion Space shall be considered continuous. For example, if, at the time Tenant exercises Tenant's option to extend the Lease Term, the Expansion Space, the 25th Floor Must-Take Space, Suite 400, Suite 500, Suite 600, Suite 700, Suite 1400, Suite 1500, Suite 1600 and Suite 1700 are part of the Premises, and no floors in the Building located between floor 17 and floor 24 are a part of the Premises, then any of the following would satisfy the requirement in Section 2.2.1 of the Lease that the Extension Premises be continuous and be comprised of no less than four (4) full floors of the Premises: (A) Tenant's exercise of its option to extend the Lease Term with respect only to

the Expansion Space, the 25th Floor Must-Take Space, Suite 1600 and Suite 1700 and no other portion of the Premises; (B) Tenant's exercise of its option to extend the Lease Term with respect only to the Expansion Space, the 25th Floor Must-Take Space, Suite 400 and Suite 500 and no other portion of the Premises; (C) Tenant's exercise of its option to extend the Lease Term with respect only to the Expansion Space, Suite 1700, Suite 1600 and Suite 1500 and no other portion of the Premises; (D) Tenant's exercise of its option to extend the Lease Term with respect only to the Expansion Space, Suite 400, Suite 500 and Suite 600 and no other portion of the Premises; (E) Tenant's exercise of its option to extend the Lease Term with respect only to Suite 400, Suite 500, Suite 600 and Suite 700 and no other portion of the Premises; (F) Tenant's exercise of its option to extend the Lease Term with respect only to Suite 1700, Suite 1600, Suite 1500 and Suite 1400 and no other portion of the Premises; (G) Tenant's exercise of its option to extend the Lease Term with respect only to the 25th Floor Must-Take Space, Suite 400, Suite 500 and Suite 600 and no other portion of the Premises; and (H) Tenant's exercise of its option to extend the Lease Term with respect only to the 25th Floor Must-Take Space, Suite 1700, Suite 1600 and Suite 1500 and no other portion of the Premises. Notwithstanding anything to the contrary contained in the Lease, as amended hereby, in the event (i) Tenant exercises its option to extend the Lease Term pursuant to Section 2.2 of the Lease, (ii) the 25th Floor Must-Take Space is included as part of the Extension Premises (as defined in Section 2.2.1 of the Lease), and (iii) the 25th Floor Must-Take Term expires on a date other than the Lease Expiration Date, the Exercise Notice (as defined in Section 2.2.3 of the Lease) may include the 25th Floor Must-Take Space and, in such event, the extended Lease Term for the 25th Floor Must-Take Space shall be coterminous with the Option Term (as defined in Section 2.2.1 of the Lease).

12.3.2 Section 2.2.1(iv) of the Lease is hereby deleted.

12.4 **Capital Costs for Expansion Space and 25th Floor Must-Take Space.** Clause (y) of Section 4.2.4(xiii) of the Lease is hereby amended and restated as follows:

"(y) with respect to Phase II Premises or the Must-Take Space after the Lease Commencement Date applicable thereto, the Expansion Space after the Expansion Effective Date, or the 25th Floor Must-Take Space after the 25th Floor Must-Take Effective Date;"

12.5 **Exclusion of Expansion Space and 25th Floor Must-Take Space from Operating Costs.** Section 4.2.4 of the Lease is hereby amended to add new exclusions (rr) and (ss) to the list of exclusions of Operating Costs as follows:

"(rr) to the extent the Base, Shell and Core relating to the 25th Floor Must-Take Space is not in compliance with Laws as of the 25th Floor Must-Take Delivery Date, the costs of bringing the Base, Shell and Core relating to the 25th Floor Must-Take Space into compliance with applicable Laws.

(ss) to the extent the Base, Shell and Core relating to the Expansion Space is not in compliance with Laws as of the Expansion Effective Date, the costs of bringing the Base, Shell and Core relating to the Expansion Space into compliance with applicable Laws."

12.6 **Limitation on Landlord Damages.** The final sentence of Section 19.2.1 of the Lease is hereby amended and restated in its entirety as follows:

"Notwithstanding the foregoing, Landlord's damages in the event of any event of default by Tenant shall not include any construction costs paid or incurred by Landlord, any brokerage commissions or allowances paid by Landlord to Tenant (including the Improvement Allowance, Expansion Improvement Allowance, or any other allowance) or any free rent provided to Tenant (or any rent attributable to any period between the Delivery Date for any Phase of the Premises, or the Expansion Space (and, if applicable, the Must-Take Space and 25th Floor Must-Take Space), and the Lease Commencement Date for such Phase of the Premises, or the Expansion Effective Date for the Expansion Space (or, if applicable, the Must-Take Effective Date or 25th Floor Must-Take Effective Date))."

12.7 **Internal Stairwell.** Notwithstanding anything to the contrary contained in the Lease, as amended hereby, Landlord hereby agrees that Tenant shall have the right, but not the obligation, at any time that Tenant is leasing both the Expansion Space and the 25th Floor Must-Take Space and is not in default beyond any applicable notice and cure periods under the Lease, to construct, at Tenant's sole cost and expense, subject to the application of the

25th Floor Must-Take Space allowance (if any), an internal stairwell connecting the Expansion Space to the 25th Floor Must-Take Space in a location approved by Landlord, either as an Alteration in accordance with Article 8 of the Lease or as an improvement pursuant to the 25th Floor Must-Take Space work letter (but, in any event, subject to the terms and conditions of the Lease, as amended hereby). Notwithstanding anything to the contrary contained in the Lease, as amended hereby, unless Landlord notifies Tenant otherwise, Tenant shall remove any such internal stairwell prior to the expiration or earlier termination of the Lease (and Tenant shall repair any damage in connection therewith and restore the Expansion Space and the 25th Floor Must-Take Space to their condition existing prior to Tenant's installation thereof). Landlord shall reasonably cooperate with Tenant's Architect or Engineers during construction of the internal stairwell, at Tenant's sole cost and expense, to identify specific locations that would be best suited for construction of

such internal stairwell; provided that the internal stairwell shall be in a location reasonably designated by Landlord.

12.8 **Lobby FF&E.** Notwithstanding anything to the contrary contained in the Lease, during such time as Tenant and/or its Permitted Transferees leases at least two hundred eighty thousand (280,000) rentable square feet of the Building (the "**280,000 RSF Leasing Requirement**"), Tenant may install, in accordance with, and subject to, the terms and conditions set forth in Article 8 of the Lease, its furniture, fixtures and equipment in the first floor lobby of the Building (the "**Lobby FF&E**"). The type, size, design, and location of such Lobby FF&E (including, for the avoidance of doubt, any changes to existing Lobby FF&E) shall be subject to Landlord's review and approval, which approval shall not be unreasonably withheld, conditioned or delayed. If Landlord fails to approve any proposed Lobby FF&E within ten (10) business days after receipt of request, then Tenant may provide Landlord with a second written request for approval. If Landlord fails to approve or disapprove such proposed Lobby FF&E within ten (10) business days after Landlord's receipt of Tenant's second request therefor, such Lobby FF&E shall be deemed approved. Tenant, at its sole cost and expense, shall maintain the Lobby FF&E in good condition and repair during the Lease Term and in accordance with the conditions and requirements described in any warranties issued by the manufacturer(s) of the Lobby FF&E. Tenant shall make any and all repairs that are necessary to the Lobby FF&E at Tenant's sole cost and expense. If Tenant fails to make any repairs to the Lobby FF&E for more than fifteen (15) days after notice from Landlord (although notice shall not be required if there is an emergency), Landlord may make the repairs, and Tenant shall pay the reasonable cost of the repairs to Landlord within thirty (30) days after receipt of an invoice, together with reasonable supporting evidence (and, in such event, Tenant shall also pay an administrative

charge in an amount equal to five percent (5%) of the cost of such repairs). At all times during the Lease Term, Tenant shall cause the Lobby FF&E to be insured pursuant to the provisions of the Lease. Tenant shall remove any Lobby FF&E at the expiration or earlier termination of the Lease, or within thirty (30) days following the failure of Tenant to satisfy the 280,000 RSF Leasing Requirement, and repair any damage to the Building caused by such removal. Landlord shall remove its furniture, fixtures and equipment within thirty (30) days of notice from Tenant of Tenant's election to install the Lobby FF&E. Notwithstanding anything to the contrary contained in this Section 12.8, Tenant's right to require Landlord to remove Landlord's furniture, fixtures and equipment shall in no event apply to the security console then existing in the first floor lobby of the Building (it being agreed that Tenant shall have no right to cause or require Landlord to remove the same in accordance with this Section).

12.9 **Use of Tenant's Lobby Sign**. Section 23.5.7 of the Lease is hereby amended and restated in its entirety as follows: "Use of Tenant's Lobby Sign. Tenant shall be solely responsible for the operation of Tenant's Lobby Sign and shall be entitled to select the content being displayed on Tenant's Lobby Sign for eighty-five percent (85%) of the time the Tenant's Lobby Sign is in operation during Building Hours and eighty-five percent (85%) of the time the Tenant's Lobby Sign is in operation during non-Building Hours. Tenant shall permit Landlord to select the content being displayed on Tenant's Lobby Sign for fifteen percent (15%) of the time the Tenant's Lobby Sign is in operation during Building Hours and fifteen percent (15%) of the time the Tenant's Lobby Sign is in operation during non-Building Hours, subject to Tenant's reasonably approval of such content and the specific Building Hours available for use by Landlord. Notwithstanding anything to the contrary contained in the Lease, as amended hereby, so long as the 280,000 RSF Leasing Requirement is satisfied, the foregoing references to: (i) "fifteen percent (15%)" shall be amended to be "ten percent (10%)", and (ii) "eighty-five percent (85%)" shall be amended to be "ninety percent (90%)".

12.10 **Mission Street Signage.** Notwithstanding anything to the contrary contained in the Lease, as amended hereby, so long as the 280,000 RSF Leasing Requirement is satisfied, Tenant shall have the exclusive right to the exterior Building signage located on Mission Street, and accordingly (i) Section 23.4.1(b) of the Lease shall be deemed modified to change “non-exclusive right (in common with Landlord and other third parties)” to “exclusive right” and (ii) the third sentence of Section 23.4.2 of the Lease shall be deemed deleted in its entirety.

13. **<u>Miscellaneous.</u>**

13.1 This Amendment, including **Exhibit A** (Outline and Location of Expansion Space) attached hereto, sets forth the entire agreement between the parties with respect to the matters set forth herein. There have been no additional oral or written representations or agreements. Under no circumstances shall Tenant be entitled to any rent abatement, improvement allowance, leasehold improvements, or other work to the Premises, or any similar economic incentives that may have been provided Tenant in connection with entering into the Lease, unless specifically set forth in this Amendment. The capitalized terms used in this Amendment shall have the same definitions as set forth in the Lease to the extent that such capitalized terms are defined therein and not redefined in this Amendment.

13.2 Except as herein modified or amended, the provisions, conditions and terms of the Lease shall remain unchanged and in full force and effect. In the case of any inconsistency between the provisions of the Lease and this Amendment, the provisions of this Amendment shall govern and control.

13.3 Neither party shall be bound by this Amendment until both parties have executed and delivered the same to each other.

13.4 Tenant hereby represents to Landlord that Tenant has dealt with no broker in connection with this Amendment other than Colliers International. Tenant agrees to indemnify and hold Landlord and the Landlord Parties harmless from all claims of any other brokers claiming to have represented Tenant in connection with this Amendment. Landlord hereby represents to Tenant that Landlord has dealt with no broker in connection with this Amendment other than CBRE, Inc. Landlord agrees to indemnify and hold Tenant and the Tenant Parties harmless from all claims of any other brokers claiming to have represented Landlord in connection with this Amendment.

13.5 The terms and conditions of Section 29.43 of the Lease shall apply to this Amendment.

13.6 For purposes of Section 1938(a) of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that neither the Premises nor the interior of the Building have undergone inspection by a Certified Access Specialist (CASp). As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: “A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection,

the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises.” In furtherance of the foregoing, Landlord and Tenant hereby agree as follows: (a) any CASp inspection requested by Tenant shall be conducted, at Tenant’s sole cost and expense, by a CASp approved in advance by Landlord, subject to Landlord’s reasonable rules and requirements; (b) Tenant, at its sole cost and expense, shall be responsible for making any improvements or repairs within the Premises to correct violations of construction-related accessibility standards; and (c) if anything done by or for Tenant in its use or occupancy of the Premises shall require any improvements or repairs to the Building or Project (outside the Premises) to correct violations of construction-related accessibility standards, then Tenant shall reimburse Landlord within thirty (30) days after Tenant’s receipt of an invoice therefor together with reasonable supporting evidence, as Additional Rent, for the cost incurred by Landlord in connection with performing such improvements or repairs. The foregoing verification is included in this Amendment solely for the purpose of complying with California Civil Code Section 1938 and the terms of this Section 13.6 regarding the parties' liability for construction related accessibility requirements shall apply only in the event Tenant exercises a right to conduct a CASp inspection and shall not in any manner otherwise affect Landlord's and Tenant's respective responsibilities for compliance with construction-related accessibility standards as are expressly set forth in the Lease, as amended hereby.

13.7 THE PARTIES HERETO CONSENT AND AGREE THAT THIS AMENDMENT MAY BE SIGNED AND/OR TRANSMITTED BY FACSIMILE, E-MAIL OF A .PDF DOCUMENT OR USING ELECTRONIC SIGNATURE TECHNOLOGY (E.G., VIA DOCUSIGN OR SIMILAR ELECTRONIC SIGNATURE TECHNOLOGY), AND THAT SUCH SIGNED ELECTRONIC RECORD SHALL BE VALID AND AS EFFECTIVE TO BIND THE PARTY SO SIGNING AS A PAPER COPY BEARING SUCH PARTY'S HAND-WRITTEN SIGNATURE. THE PARTIES FURTHER CONSENT AND AGREE

THAT (1) TO THE EXTENT A PARTY SIGNS THIS DOCUMENT USING ELECTRONIC SIGNATURE TECHNOLOGY, BY CLICKING "SIGN", SUCH PARTY IS SIGNING THIS AMENDMENT ELECTRONICALLY, AND (2) THE ELECTRONIC SIGNATURES APPEARING ON THIS AMENDMENT SHALL BE TREATED, FOR PURPOSES OF VALIDITY, ENFORCEABILITY AND ADMISSIBILITY, THE SAME AS HAND-WRITTEN SIGNATURES.

13.8 To induce Tenant to execute this Amendment, and in addition to the other representations and warranties of Landlord contained in the Lease, as amended hereby, Landlord warrants and represents that:

(a) As of Expansion Delivery Date, no person or entity (except Tenant) has any right to lease or take possession of any portion of the Expansion Space.

(b) As of the date of this Amendment, to Landlord's knowledge, no restrictions contained in any leases of other tenants at the Project do or shall prohibit, restrict, conflict with or adversely affect Tenant's use and occupancy of the Expansion Space or the Premises or the intended use of the rights granted to Tenant in the Lease, as amended hereby, including the Ancillary Uses.

(c) As of the date of this Amendment, no Security Document that affects the validity of the Lease, as amended hereby, encumbers Landlord's interest in the Building or Project as of the date hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, Landlord and Tenant have duly executed this Amendment as of the day and year first above written.

LANDLORD:

KR 100 FIRST STREET OWNER, LLC, a Delaware limited liability company

By: 100 First Street Member, LLC, a Delaware limited liability company, its Manager

By: Kilroy Realty, L.P., a Delaware limited partnership, its Managing Member

By: Kilroy Realty Corporation, a Maryland corporation, its General Partner

By: /s/ Jeffrey Hawken
Name: Jeffrey Hawken
Title: COO

By: /s/ John Osmond
Name: John Osmond
Title: Senior Vice President

TENANT:

OKTA, INC.,
a Delaware corporation

By: /s/ Jonathan Runyan
Name: Jonathan Runyan
Title: General Counsel & Secretary

By: ________________________________
Name: ________________________________
Title: ________________________________

[Signature Page to First Amendment to Office Lease]

EXHIBIT A – OUTLINE AND LOCATION OF EXPANSION SPACE

Exhibit A is intended only to show the general layout of the Expansion Space as of the beginning of the Expansion Effective Date. It is not to be scaled; any measurements or distances shown should be taken as approximate.

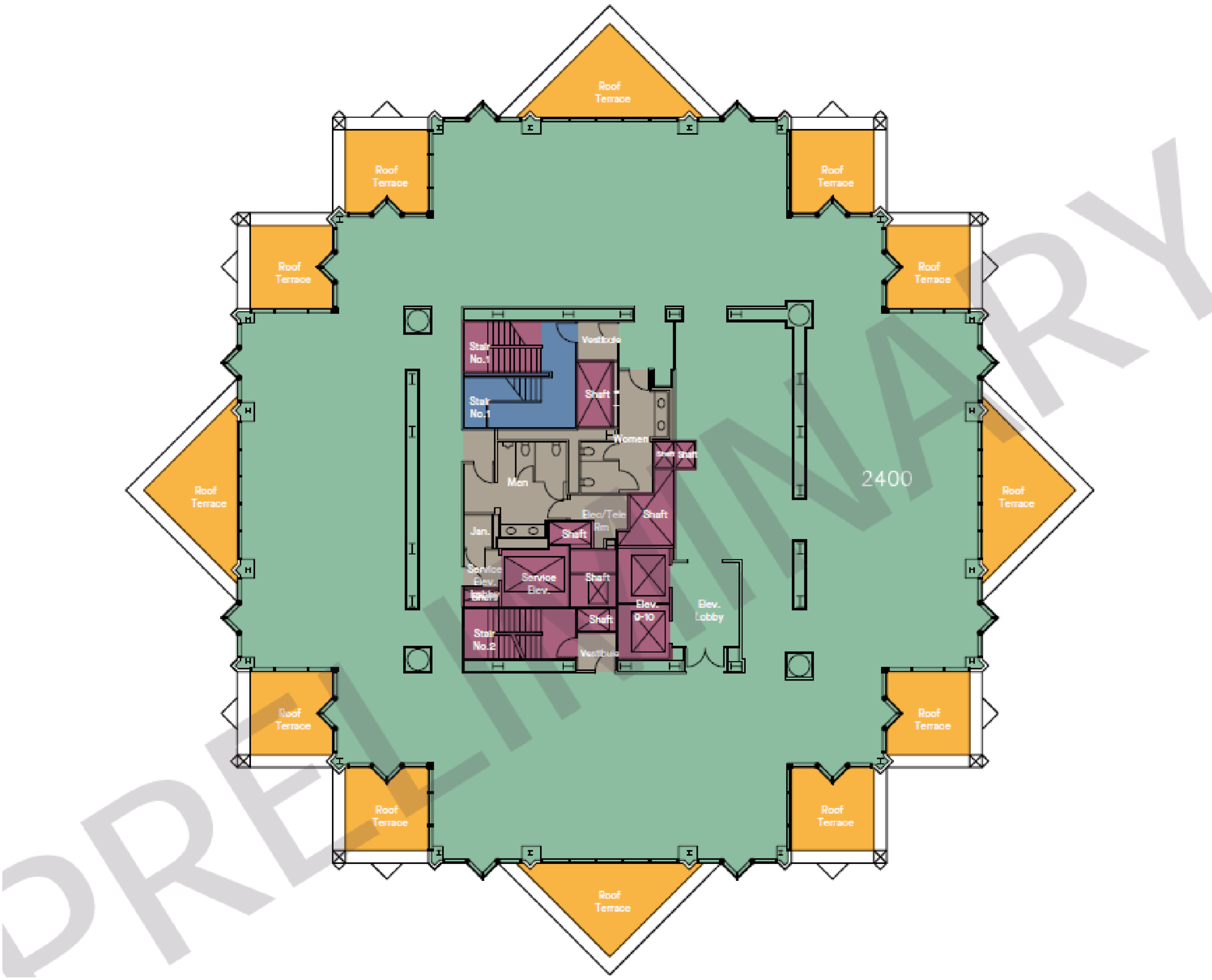

Exhibit 31.1

**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: December 5, 2019

/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: December 5, 2019

/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 October 31, 2019, 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: December 5, 2019

/s/ Todd McKinnon

Todd McKinnon
Chief Executive Officer
(Principal Executive Officer)

/s/ William E. Losch

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