
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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 September 30, 2018

OR

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

Commission File Number: 001-37885

Apptio, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
11100 NE 8th Street, Suite 600
Bellevue, WA
(Address of principal executive offices)

26-1175252
(I.R.S. Employer
Identification No.)

98004
(Zip Code)

Registrant's telephone number, including area code: (866) 470-0320

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	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input checked="" type="checkbox"/>		

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 October 25, 2018, 45,104,489 shares of the registrant's Class A common stock were outstanding.

Table of Contents

	<u>Page</u>
PART I.	
FINANCIAL INFORMATION	
Item 1. Financial Statements (Unaudited)	1
Condensed Consolidated Balance Sheets	1
Condensed Consolidated Statements of Operations	2
Condensed Consolidated Statements of Comprehensive Loss	3
Condensed Consolidated Statements of Cash Flows	4
Notes to Unaudited Condensed Consolidated Financial Statements	5
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	22
Item 3. Quantitative and Qualitative Disclosures About Market Risk	37
Item 4. Controls and Procedures	37
PART II.	
OTHER INFORMATION	
Item 1. Legal Proceedings	39
Item 1A. Risk Factors	39
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	60
Item 6. Exhibits	61
Signatures	62

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

Apptio, Inc.
Condensed Consolidated Balance Sheets
(In thousands)
(Unaudited)

	<u>September 30,</u> <u>2018</u>	<u>December 31,</u> <u>2017</u> <u>* As Adjusted</u>
Assets		
Current assets		
Cash and cash equivalents	\$ 177,677	\$ 55,069
Short-term investments	77,495	93,901
Accounts receivable, net of allowance for doubtful accounts of \$839 and \$413	66,485	68,782
Deferred costs	14,252	11,898
Prepaid expenses and other current assets	5,078	5,079
Total current assets	<u>340,987</u>	<u>234,729</u>
Long-term assets		
Property and equipment, net of accumulated depreciation and amortization of \$25,394 and \$21,924	10,592	10,437
Long-term investments	2,837	—
Deferred costs, net of current portion	18,779	17,182
Acquisition-related intangible assets, net	18,112	—
Goodwill	31,004	—
Other long-term assets	951	983
Total assets	<u>\$ 423,262</u>	<u>\$ 263,331</u>
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 8,492	\$ 5,598
Accrued payroll and other expenses	19,816	16,481
Deferred revenue	118,242	116,831
Deferred rent	1,000	892
Capital leases	25	21
Total current liabilities	<u>147,575</u>	<u>139,823</u>
Long-term liabilities		
Convertible senior notes, net	109,772	—
Deferred revenue, net of current portion	5,919	2,470
Deferred rent, net of current portion	2,996	3,483
Capital leases, net of current portion	103	26
Asset retirement obligation	222	199
Total liabilities	<u>266,587</u>	<u>146,001</u>
Commitments and contingencies (Note 14)		
Stockholders' equity		
Class A and Class B Common stock	5	4
Additional paid-in capital	371,491	314,301
Accumulated other comprehensive income (loss)	10	(110)
Accumulated deficit	(214,831)	(196,865)
Total stockholders' equity	<u>156,675</u>	<u>117,330</u>
Total liabilities and stockholders' equity	<u>\$ 423,262</u>	<u>\$ 263,331</u>

*See Note 1 for a summary of adjustments

The accompanying notes are an integral part of these condensed consolidated financial statements.

Apptio, Inc.
Condensed Consolidated Statements of Operations
(In thousands, except per share amounts)
(Unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
		<i>*As Adjusted</i>		<i>*As Adjusted</i>
Revenue				
Subscription	\$ 49,610	\$ 39,426	\$ 144,287	\$ 112,860
Professional services	9,613	7,570	28,051	23,292
Total revenue	59,223	46,996	172,338	136,152
Cost of revenue				
Subscription	9,157	7,167	27,777	22,269
Professional services	8,916	6,763	26,925	21,599
Total cost of revenue	18,073	13,930	54,702	43,868
Gross profit	41,150	33,066	117,636	92,284
Operating expenses				
Research and development	12,130	10,139	36,204	30,060
Sales and marketing	23,993	19,792	70,695	60,401
General and administrative	7,905	7,188	25,558	20,342
Total operating expenses	44,028	37,119	132,457	110,803
Loss from operations	(2,878)	(4,053)	(14,821)	(18,519)
Other (expense) income				
Interest expense	(1,897)	(1)	(4,021)	(21)
Interest income	1,126	326	2,375	859
Other income (expense), net	109	(14)	81	(27)
Foreign exchange (loss) gain	(335)	93	(797)	159
Loss before income taxes	(3,875)	(3,649)	(17,183)	(17,549)
Provision for income taxes	(695)	(463)	(783)	(614)
Net loss	\$ (4,570)	\$ (4,112)	\$ (17,966)	\$ (18,163)
Net loss per share attributable to common stockholders, basic and diluted	\$ (0.10)	\$ (0.10)	\$ (0.41)	\$ (0.46)
Weighted-average shares used to compute net loss per share attributable to common stockholders, basic and diluted	44,785	40,120	43,830	39,240

*See Note 1 for a summary of adjustments

The accompanying notes are an integral part of these condensed consolidated financial statements.

Apptio, Inc.
Condensed Consolidated Statements of Comprehensive Loss
(In thousands)
(Unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
		<u>*As Adjusted</u>		<u>*As Adjusted</u>
Net loss	\$ (4,570)	\$ (4,112)	\$ (17,966)	\$ (18,163)
Other comprehensive loss				
Foreign currency translation adjustment	(3)	—	42	—
Unrealized gain (loss) on available-for-sale securities	2	53	78	—
Total comprehensive loss	<u>\$ (4,571)</u>	<u>\$ (4,059)</u>	<u>\$ (17,846)</u>	<u>\$ (18,163)</u>

*See Note 1 for a summary of adjustments

The accompanying notes are an integral part of these condensed consolidated financial statements.

Apptio, Inc.
Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2018	2017 *As Adjusted
Cash flows from operating activities		
Net loss	\$ (17,966)	\$ (18,163)
Adjustments to reconcile net loss to net cash provided by operating activities		
Depreciation and amortization	4,000	4,657
(Accretion of discounts)/amortization of premiums on investments	(517)	59
Amortization of acquisition-related intangible assets	2,388	—
Amortization of deferred costs	12,222	10,093
Amortization of debt discount and issuance costs	3,362	18
Loss on disposal of property and equipment	9	7
Stock-based compensation	16,686	11,667
Foreign exchange loss (gain)	797	(159)
Change in operating assets and liabilities, net of impact of business combination		
Accounts receivable	7,986	12,026
Prepaid expenses and other assets	(593)	3,260
Deferred costs	(13,611)	(10,648)
Accounts payable	1,104	635
Accrued expenses	2,437	(2,025)
Deferred revenue	(9,871)	72
Deferred rent	(594)	(596)
Net cash provided by operating activities	<u>7,839</u>	<u>10,903</u>
Cash flows from investing activities		
Business combination, net of cash acquired	(39,041)	—
Purchases of property and equipment	(2,238)	(2,837)
Proceeds from sales of equipment	38	11
Proceeds from maturities of investments	115,950	35,075
Purchases of investments	(101,785)	(66,196)
Return of (payments for) security deposits	53	(23)
Net cash used in investing activities	<u>(27,023)</u>	<u>(33,970)</u>
Cash flows from financing activities		
Proceeds from borrowings on convertible notes, net of discounts	139,438	—
Purchase of capped calls	(17,092)	—
Proceeds from exercises of common stock options	18,032	8,948
Payment of issuance costs on convertible notes	(469)	—
Proceeds from purchases of stock under employee stock purchase plan	2,391	2,251
Payment of initial public offering costs	—	(243)
Principal payments on capital lease obligations	(20)	(32)
Net cash provided by financing activities	<u>142,280</u>	<u>10,924</u>
Foreign currency effect on cash, cash equivalents and restricted cash	(488)	(585)
Net increase (decrease) in cash, cash equivalents and restricted cash	122,608	(12,728)
Cash, cash equivalents and restricted cash		
Beginning of period	55,069	42,007
End of period	<u>\$ 177,677</u>	<u>\$ 29,279</u>
Supplemental non-cash disclosures		
Class A Common stock issued in business combination	4,617	—
Purchases under capital lease obligations	144	—
Property and equipment additions in accounts payable and accrued expenses	1,842	328
Leasehold improvements paid directly by lessor	218	—

*See Note 1 for a summary of adjustments

The accompanying notes are an integral part of these condensed consolidated financial statements.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements

Note 1. Description of Operations and Summary of Significant Accounting Policies

Operations

Apptio, Inc., or the Company, was incorporated on October 2, 2007 and is headquartered in Bellevue, Washington. The Company develops and sells Technology Business Management, or TBM, solutions. The Company's cloud-based platform and SaaS applications enable IT leaders to analyze, optimize and plan technology investments, and benchmark their financial and operational performance against peers. The Company operates primarily in North America, Europe and Australia.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America, or GAAP, and applicable rules and regulations of the Securities and Exchange Commission, or SEC, regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. Therefore, these condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017 filed with the SEC on February 21, 2018, or Form 10-K. The condensed consolidated balance sheet as of December 31, 2017, included herein, was derived from the audited annual financial statements as of that date, but does not include all disclosures including certain notes required by GAAP on an annual reporting basis.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements reflect all normal recurring adjustments necessary to fairly state the financial position, results of operations, comprehensive loss and cash flows for the interim periods, but are not necessarily indicative of the results of operations to be anticipated for the full year 2018 or any future period.

Reclassifications

In the condensed consolidated statements of operations, certain prior year amounts have been reclassified to conform to the current year presentation. Specifically, "interest expense" and "interest income" were previously included in the line item "interest income (expense) and other, net" and are now separately stated. There was no change to total net loss as a result of the reclassification.

Principles of Consolidation

The condensed consolidated financial statements include the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ materially from those estimates.

Certain Significant Risks and Uncertainties

The Company continues to be subject to the risks and challenges associated with other companies at a similar stage of development, including risks associated with: dependence on key personnel; successful marketing and sale of its solutions and adaptation of such solutions to changing market dynamics and customer preferences; competition from alternative products and services, including from larger companies that have greater name recognition, longer operating histories, more and better established customer relationships and greater resources than the Company; and the ability to raise additional capital to support future growth.

Since inception through September 30, 2018, the Company has incurred losses from operations, has accumulated a deficit of \$214.8 million, and has been dependent on equity and debt financing, and to a substantially lesser extent, cash flows from operations, to fund its business.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Significant Accounting Policies

There have been no material changes to the Company's significant accounting policies and estimates as previously disclosed in the Company's Form 10-K, except for the accounting policies for revenue recognition and deferred costs that were updated as a result of adopting Accounting Standard Update, or ASU, 2014-09, *Revenue from Contracts with Customers (Topic 606)* described within *Recently Adopted Accounting Pronouncements* below, and new policies added during the period related to the Company's recent business combination and issuance of convertible senior notes.

Revenue Recognition

The Company derives its revenue from two sources: (1) subscription revenue, which is comprised of subscription fees from customers utilizing the Company's applications, fees for additional support beyond the standard support that is included in the basic subscription fees, which are referred to as premium support offerings, fees for subscription based online training offerings, as well as term-based software license fees and support and maintenance fees related to customers of the acquired business; and (2) professional services, which consist of fees associated with the implementation and configuration of the Company's applications, as well as fees for in-person training and TBM Council conference registration and sponsorship fees. Implementation and configuration services primarily consist of consultative services, such as data mapping and establishing best practices. Implementation and configuration services do not result in any significant customization or modification of the software platform or user interface. The Company presents revenue from both of these sources separately in its condensed consolidated statements of operations.

The Company follows a five-step approach to recognizing revenue: (1) identify the contract with a customer; (2) identify the separate performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the separate performance obligations in the contract; and (5) recognize revenue when (or as) the entity satisfies a performance obligation.

The Company enters into arrangements with multiple performance obligations that primarily include subscription and professional services, but may also include premium support, online training and in-person training. The Company's arrangements do not contain general rights of return. The professional services are not considered essential to the functionality of the software. To qualify as a separate unit of accounting, the delivered item must have value to the customer on a stand-alone basis. The Company believes its subscription offerings and its professional services offerings have stand-alone value. The Company determines the stand-alone selling price by considering the historical selling price of these performance obligations in similar transactions, as well as current pricing practices. The Company's subscriptions have stand-alone value because such services are often sold separately from other professional services. The Company's professional services have stand-alone value because those services may be sold separately by other vendors and there are trained third-party consultants capable of performing the professional services. Performance obligations that are accounted for separately consist of software subscription, support for on-premise licenses, professional services, premium support and online and in-person training.

The Company typically invoices customers for subscription fees in annual increments upon execution of the initial contract or subsequent renewal. The Company recognizes revenue for subscription fees from customers utilizing its applications ratably over the subscription term, which are typically one to three years. The Company's subscription arrangements generally do not allow the customer the contractual right to take possession of the software; as such, the arrangements are considered service contracts. Fees for premium support offerings and subscription-based online training are generally one-year agreements billed upfront, and are recognized ratably over the term of the support or training agreement. The Company's premium support offerings include all of the Company's standard incident support services, with enhanced response times, dedicated support resources, access to architecture and configuration experts and other services not included with standard support. The Company's subscription-based online training provides self-directed training for customers via access to recorded training sessions.

Professional services revenue consists of fees associated with application configuration, integration, change management, education and training services, and conference registration and sponsorship fees. The Company's professional services engagements are priced on a time-and-materials basis or fixed-fee basis. The duration of the Company's professional services engagements varies based on the scope of services requested, but typically ranges between three and six months. For time-and-materials arrangements, the Company recognizes revenue as hours are worked. For fixed-fee arrangements, the Company recognizes professional services revenue as delivered using the percentage of completion, or POC, method measured on an hours incurred basis. Under the POC method of accounting, revenue and expenses are recognized as work is performed based on the relationship between actual hours incurred and total estimated hours at the completion of the project. Changes to the original estimates may be required during the life of the project. Estimates of both hours and costs to complete a project are reviewed periodically and the effect of any change in the estimated hours to complete a project is reflected as an adjustment to revenue in the period the change becomes known.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

If estimated costs to fulfill a contract exceed the revenue expected from the contract, a loss equal to the amount of estimated excess costs will be recognized in the period the change is known. The use of the POC method of accounting involves considerable use of estimates in determining revenue, costs and profits, and in assigning the amounts to accounting periods. Associated out-of-pocket travel expenses related to the delivery of professional services are typically reimbursed by the customer. Out-of-pocket expense reimbursements are recognized as revenue and cost of professional services.

Fees for in-person training are billed in advance of the training and are recognized in the period the training occurs. Conference registration and sponsorship fees are for TBM Council conferences and related TBM Council activities. Registration fees for TBM Council conferences are billed in advance of the conference and are recognized in the period the conference occurs. TBM Council sponsorship fees are paid in advance and are recognized in the period the sponsorship activities occur, or ratably over the contractual period if the sponsorship entails ongoing activities beyond a single event.

The Company also sells applications through third-party resellers. These arrangements typically call for the reseller to retain a portion of the subscription fee paid by the customer as compensation. Since the Company is responsible for the fulfillment of the goods and services and has the primary responsibility for the good or service meeting customer expectations, the Company is the principal in these transactions and records revenue on a gross basis based on the amount billed to the reseller. Reseller fees are capitalized and amortized through sales and marketing expense as discussed under Deferred Costs below.

All subscription and support fees that are billed in advance are recorded as a contract liability, presented in the condensed consolidated balance sheets as deferred revenue. Deferred revenue represents the unearned revenue on cash receipts or accounts receivable for the sale of subscriptions and for professional services for which services have not yet been provided. The substantial majority of deferred revenue relates to subscription revenue.

Deferred Costs

Deferred costs consist of sales commissions earned by the Company's sales force and fees paid to third-party resellers and are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions for subscription contracts are deferred and then amortized on a straight-line basis over a period of benefit that the Company has determined to be four years for new subscription agreements, over the term of the respective subscription for renewals of subscription agreements, and over one year for service contracts. The Company determined the period of benefit by taking into consideration our customer contracts, our technology and other factors. These costs are classified as current or noncurrent based on the timing of when the Company expects to recognize the expense. Periodically, the Company reviews the deferred costs for impairment and will recognize such impairment in the period when and if the carrying amount of the asset exceeds future consideration less costs that relate directly to providing service that have not been recognized. Amortization expense is included in sales and marketing expenses in the condensed consolidated statements of operations.

Business Combinations

The Company uses its best estimates and assumptions to assign fair value to the tangible and intangible assets acquired and liabilities assumed as of the acquisition date. The estimates are inherently uncertain and subject to refinement. During the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the fair value of these tangible and intangible assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the fair value of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in the period identified in the condensed consolidated statements of operations.

Goodwill and Acquisition-Related Other Intangible Assets

Goodwill represents the excess of the purchase price in a business combination over the fair value of the net tangible and intangible assets acquired. The Company evaluates and tests the recoverability of goodwill for impairment at least annually, or more frequently if circumstances indicate that goodwill may not be recoverable. The Company performs the impairment testing by first assessing qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of its reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, the Company determines it is more likely than not that the fair value of a reporting unit is less than its carrying amount, a goodwill impairment test is performed. To calculate any potential impairment, the Company compares the fair value of a reporting unit with its carrying amount, including goodwill. Any excess of the carrying amount of the reporting unit's goodwill over its fair

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

value is recognized as an impairment loss, and the carrying value of goodwill is written down. For purposes of goodwill impairment testing, there is one reporting unit.

The Company periodically reviews the carrying amounts of acquired intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset group may not be recoverable. The Company measures the recoverability of this asset group by comparing the carrying amount of each asset group to the future undiscounted cash flows it expects the asset group to generate. If the Company considers any of this asset group to be impaired, the impairment to be recognized equals the amount by which the carrying value of the asset group exceeds its fair value. In addition, the Company periodically evaluates the estimated remaining useful lives of long-lived assets to determine whether events or changes in circumstances warrant a revision to the remaining period of amortization. Intangible assets are amortized over their useful lives ranging from two to ten years.

Foreign Currency Translation

The functional currency for most of the Company's foreign subsidiaries is the U.S. dollar, while one uses local currency. The results of operations for the Company's international subsidiaries whose functional currency is the U.S. dollar are remeasured from the local currency into U.S. dollars using the average exchange rates during each period. The majority of the assets and liabilities are remeasured using exchange rates at the end of each period. All equity transactions and certain assets are remeasured using historical rates. The Company translates the foreign functional currency financial statements to U.S. dollars for the entity that does not have U.S. dollars as their functional currency using the exchange rates at the balance sheet date for assets and liabilities, the period average exchange rates for revenues and expenses, and the historical exchange rates for equity transactions and certain assets. The effects of foreign currency translation adjustments are recorded in accumulated other comprehensive income (loss) as a component of stockholders' equity, and related periodic movements are summarized as a line item in the condensed consolidated statements of comprehensive loss.

Convertible Senior Notes

The Company accounts for the issued Convertible Senior Notes, or the Notes, as separate liability and equity components. The Company determined the carrying amount of the liability component based on the fair value of a similar debt instrument excluding the embedded conversion option. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the Notes as a whole. This difference represents a debt discount that is amortized to interest expense over the term of the Notes using the effective interest rate method. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. The Company has allocated issuance costs incurred 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 Notes, and issuance costs attributable to the equity components were netted with the respective equity component in additional paid in capital. In connection with the issuance of the Notes, the Company entered into capped call transactions with certain counterparties affiliated with the initial purchasers and others. By entering into the capped call transactions, the Company mitigates potential dilution resulting from the issuance of the Notes, effectively increasing the conversion price of the Notes.

Recently Adopted Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board, or FASB, issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, outlining a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers that supersedes most current revenue recognition guidance with a comprehensive revenue measurement and recognition standard and expanded disclosure requirements. The standard also provides guidance on the recognition of costs related to obtaining customer contracts.

The Company adopted the requirements of the new standard as of January 1, 2018, utilizing the full retrospective transition method. Adoption of the new standard resulted in changes to our policies for revenue recognition and sales commissions as detailed above.

The impact of adopting the new standard on 2017 revenues in the consolidated financial statements was not material. The primary impact of adopting the new standard is the requirement for the Company to capitalize certain contract costs, such as commissions, which were previously being expensed as incurred. These costs are now capitalized and amortized over a period of benefit that the Company has determined to be four years for new subscription agreements and over the term of the respective subscription for renewals of subscription agreements. Commissions on service arrangements are now capitalized and amortized over a period of benefit that the Company has determined to be one year.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

The Company has adjusted its condensed consolidated financial statements from amounts previously reported due to the adoption of ASU No. 2014-09. Select unaudited condensed consolidated balance sheet line items, which reflect the adoption of ASU No. 2014-09, are as follows (in thousands):

	December 31, 2017		
	As Previously Reported	Adjustments	As Adjusted
Assets:			
Deferred costs	\$ —	\$ 11,898	\$ 11,898
Deferred costs, net of current portion	—	17,182	17,182
Liabilities and Stockholders' Equity			
Accumulated deficit	\$ (225,945)	\$ 29,080	\$ (196,865)

Select unaudited condensed consolidated statement of operations line items, which reflect the adoption of ASU No. 2014-09, are as follows (in thousands):

	Three Months Ended September 30, 2017		
	As Previously Reported	Adjustments	As Adjusted
Operating expenses:			
Sales and marketing	\$ 20,863	\$ (1,071)	\$ 19,792
Loss from operations	(5,124)	1,071	(4,053)
Foreign exchange gain (loss)	105	(12)	93
Net loss	\$ (5,171)	\$ 1,059	\$ (4,112)
Net loss per share attributable to common stockholders, basic and diluted	\$ (.13)	\$.03	\$ (.10)

	Nine Months Ended September 30, 2017		
	As Previously Reported	Adjustments	As Adjusted
Operating expenses:			
Sales and marketing	\$ 60,983	\$ (582)	\$ 60,401
Loss from operations	(19,101)	582	(18,519)
Foreign exchange gain (loss)	173	(14)	159
Net loss	\$ (18,731)	\$ 568	\$ (18,163)
Net loss per share attributable to common stockholders, basic and diluted	\$ (.48)	\$.02	\$ (.46)

Select unaudited condensed consolidated statement of cash flows line items, which reflect the adoption of ASU No. 2014-09, are as follows (in thousands):

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

	Nine Months Ended September 30, 2017		
	As Previously Reported	Adjustments	As Adjusted
Cash flows from operating activities:			
Net loss	\$ (18,731)	568	\$ (18,163)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Amortization of deferred costs	—	10,093	10,093
Foreign exchange (gain) loss	(173)	14	(159)
Change in operating assets and liabilities			
Deferred costs	—	(10,648)	(10,648)
Net cash provided by operating activities	10,876	27	10,903
Foreign currency effect on cash, cash equivalents and restricted cash	(558)	(27)	(585)
Net decrease in cash, cash equivalents and restricted cash	(12,728)	—	(12,728)
Cash, cash equivalents and restricted cash			
End of period	\$ 29,279	\$ —	\$ 29,279

In June 2018, the FASB issued ASU No. 2018-07, *Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, which aligns the measurement and classification for share-based payments to non-employees with the accounting guidance for share-based payments to employees. Among other requirements, the measurement of non-employee awards will now be fixed at the grant date, rather than remeasured at every reporting date. ASU 2018-07 is effective for fiscal years beginning after December 15, 2018, including interim periods within that fiscal year. Early adoption is permitted. The Company elected to early adopt the requirements of this new standard as of July 1, 2018. The adoption of this standard did not have a material impact on the Company's financial statements.

New Accounting Pronouncements Not Yet Adopted

In August 2018, the FASB issued ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40)*. This guidance requires a customer in a hosting arrangement that is a service contract to follow the guidance in Accounting Standards Codification 350-40 to determine which implementation costs to capitalize as an asset related to the service contract and which costs to expense. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted, including adoption in any interim period. The Company is currently evaluating the impact this guidance will have on the Company's financial statements and the timing of adoption.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820)*. This guidance modifies the disclosure requirements on fair value measurements in Topic 820, Fair Value Measurement. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the impact this guidance will have on the Company's financial statements and the timing of adoption.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which eliminates Step 2 from the goodwill impairment test. Under ASU 2017-04, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. Additionally, an entity should consider income tax effects from any tax-deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. ASU 2017-04 is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019, and early adoption is permitted for impairment tests performed on testing dates after January 1, 2017. ASU 2017-04 is to be applied on a prospective basis. The Company is currently evaluating the impact this guidance will have on the Company's financial statements and the timing of adoption.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

In October 2016, the FASB issued ASU 2016-16, *Inter-Entity Transfers of Assets other than Inventory*. This guidance requires entities to recognize the income tax impact of an intra-entity sale or transfer of an asset other than inventory when the sale or transfer occurs, rather than when the asset has been sold to an outside party. The guidance will require a modified retrospective application with a cumulative catch-up adjustment to opening retained earnings at the beginning of the first quarter of fiscal 2019, but permits adoption in an earlier period. The Company is currently evaluating the impact this guidance will have on the Company's financial statements and the timing of adoption.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The objective of the update is to improve financial reporting by increasing transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. For public entities, the new standard is effective for interim and annual reporting periods beginning after December 15, 2018. For all other entities, the new standard is effective for annual reporting periods beginning after December 15, 2019, and for interim periods within those annual periods beginning after December 15, 2020. Early application of the amendments is permitted for all entities. The Company currently plans to adopt this standard in the first quarter of 2019 using the modified retrospective approach. The Company is currently evaluating the impact this guidance will have on the Company's financial statements.

Note 2. Fair Value Measurements

The following tables present information about the Company's financial assets and liabilities that have been measured at fair value as of September 30, 2018 and December 31, 2017, and indicates the fair value hierarchy of the valuation inputs utilized to determine such fair value (in thousands):

	September 30, 2018		
	Level 1	Level 2	Total
Money market funds	\$ 10,211	\$ —	\$ 10,211
Corporate notes and obligations	—	32,087	32,087
U.S. government treasury securities	48,245	—	48,245
	<u>\$ 58,456</u>	<u>\$ 32,087</u>	<u>\$ 90,543</u>

	December 31, 2017		
	Level 1	Level 2	Total
Money market funds	\$ 24,225	\$ —	\$ 24,225
Corporate notes and obligations	—	38,020	38,020
U.S. government treasury securities	55,881	—	55,881
	<u>\$ 80,106</u>	<u>\$ 38,020</u>	<u>\$ 118,126</u>

At September 30, 2018 and December 31, 2017, the Company utilized the market approach to value its money market mutual funds and U.S. government treasury securities using Level 1 valuation inputs which include quoted prices in active markets for identical assets or liabilities. The Company's Level 2 marketable securities are valued using the market approach based on broker or dealer quotations, actual trade data, recent observable transaction information for similar securities, benchmark yields or alternative pricing sources with reasonable levels of price transparency, and include the Company's investments in corporate notes and obligations, as applicable.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Note 3. Investments

Available-for-sale securities consist of fixed-income securities that are accounted for at fair value. Available-for-sale securities with an original maturity of 90 days or less are classified within cash and cash equivalents in the condensed consolidated balance sheets. Premiums and discounts are factored into the cost basis of the investment and amortized over the life through maturity. The amortized cost and fair value on the available-for-sale investments and unrealized gains and losses as of September 30, 2018 and December 31, 2017 were as follows (in thousands):

	September 30, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<i>Amounts maturing in one year or less</i>				
Corporate notes and obligations	\$ 29,259	\$ 1	\$ (10)	\$ 29,250
U.S. government treasury securities	48,258	—	(13)	48,245
Total short-term available-for-sale debt securities	<u>\$ 77,517</u>	<u>\$ 1</u>	<u>\$ (23)</u>	<u>\$ 77,495</u>
<i>Amounts maturing in greater than one year</i>				
Corporate notes and obligations	\$ 2,847	\$ —	\$ (10)	\$ 2,837
U.S. government treasury securities	—	—	—	—
Total long-term available-for-sale debt securities	<u>\$ 2,847</u>	<u>\$ —</u>	<u>\$ (10)</u>	<u>\$ 2,837</u>
	December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
<i>Amounts maturing in one year or less</i>				
Corporate notes and obligations	\$ 38,044	\$ —	\$ (24)	\$ 38,020
U.S. government treasury securities	55,967	—	(86)	55,881
Total short-term available-for-sale debt securities	<u>\$ 94,011</u>	<u>\$ —</u>	<u>\$ (110)</u>	<u>\$ 93,901</u>

As interest rates increase, those securities purchased at a lower yield show a mark-to-market unrealized loss. The longer the duration of these securities, the more susceptible they are to changes in market interest rates and bond yields. The unrealized losses are due primarily to changes in interest rates. The Company regularly reviews investments for other-than-temporary impairment using both qualitative and quantitative criteria.

The following table presents gross unrealized losses and fair values for those investments that were in an unrealized loss position as of September 30, 2018 aggregated by investment category and the length of time that individual securities have been in a continuous loss position (in thousands):

	September 30, 2018			
	Less than 12 months		12 months or greater	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Corporate notes and obligations	\$ 13,480	\$ (20)	\$ —	\$ —
U.S. government treasury securities	43,793	(13)	—	—
Total available-for-sale debt securities	<u>\$ 57,273</u>	<u>\$ (33)</u>	<u>\$ —</u>	<u>\$ —</u>

The Company does not consider any of the unrealized losses on its investments to be other-than-temporarily impaired based on its evaluation of available evidence, which includes the Company's intent as of September 30, 2018 to hold these investments until the cost basis is recovered. Realized gains and losses on sales of available-for-sale securities were immaterial for all periods presented.

Note 4. Deferred costs

Deferred costs, which primarily consist of deferred sales commissions, were \$33.0 million and \$29.1 million as of September 30, 2018 and December 31, 2017, respectively. The Company capitalized \$5.4 million and \$4.5 million during the three months ended September 30, 2018 and 2017, respectively, and \$13.6 million and \$10.6 million during the nine months ended

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

September 30, 2018 and 2017, respectively. In addition, the Company acquired \$2.7 million of deferred costs related to capitalized commissions and reseller fees, in connection with the business combination noted below. Amortization expense for the deferred costs was \$4.3 million and \$3.5 million during the three months ended September 30, 2018 and 2017, respectively, and \$12.2 million and \$10.1 million during the nine months ended September 30, 2018 and 2017, respectively. Impairment losses related to deferred costs were immaterial for the three and nine months ended September 30, 2018.

Note 5. Business Combinations

On February 2, 2018, the Company acquired all outstanding membership interests of Digital Fuel SV, LLC, or Digital Fuel, a provider of IT business management tools, to extend its leadership role of the Technology Business Management market and broaden the Company's customer base.

The Company allocated the purchase price of the acquisition to identifiable assets acquired and liabilities assumed based on their estimated fair values as of the acquisition date. The excess of the purchase price over the aggregate fair values was recorded as goodwill. The Company calculated the fair value of the assets acquired using the income and cost approaches (or a combination thereof). Fair values were determined based on Level 3 inputs including estimated future cash flows, discount rates, royalty rates, growth rates, sales projections, retention rates and terminal values, all of which require significant management judgment.

During the second quarter of 2018, the Company finalized the purchase price allocation. Measurement period adjustments recorded during the period were not material.

The total consideration for this acquisition was (in thousands, except share data):

Cash	\$	39,138
Common stock (176,406 shares)		4,617
Total	\$	43,755

The following table summarizes the fair values of the tangible and intangible assets acquired and liabilities assumed as of the acquisition date (in thousands):

	<u>Purchase Consideration</u>	<u>Useful life (in years)</u>
Cash	\$ 97	
Accounts receivable	6,267	
Other tangible assets	2,804	
Acquired developed technology	8,100	4
Customer contracts and related relationships	11,400	10
Order backlog	500	2
Trademarks and trade name	500	3
Accounts payable, deferred revenue and other liabilities	(16,917)	
Net assets acquired	12,751	
Goodwill	31,004	
Total	\$ 43,755	

The excess of purchase consideration over the fair value of net tangible and identifiable intangible assets acquired was recorded as goodwill. The Company believes the goodwill resulting from this business combination represents the synergies expected from expanded market opportunities when integrating the acquired technologies with our offerings. The goodwill balance is deductible for U.S. income tax purposes.

The acquired entity's results of operations have been included in the condensed consolidated financial statements of the Company from the date of acquisition. The Company incurred costs related to this acquisition of \$1.9 million. All acquisition-related costs were expensed as incurred and have been recorded in general and administrative expenses in the condensed consolidated statements of operations.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Pro forma and historical results of operations for this acquisition are not presented as the financial impact to the Company's condensed consolidated financial statements is immaterial.

Note 6. Acquisition-Related Intangible Assets

Intangible assets acquired through the Company's business combination are as follows (in thousands):

	September 30, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired developed technology	\$ 8,100	\$ (1,350)	\$ 6,750
Customer contracts and related relationship assets	11,400	(760)	10,640
Order backlog	500	(167)	\$ 333
Trademarks and trade name	500	(111)	389
Total	\$ 20,500	\$ (2,388)	\$ 18,112

The weighted average remaining useful life of the intangible assets is seven years. The expected future amortization expense for intangible assets as of September 30, 2018 is as follows (in thousands):

Years Ending December 31,	
2018	\$ 895
2019	3,582
2020	3,353
2021	3,179
2022	1,309
Thereafter	5,794
Total future amortization expense	\$ 18,112

Note 7. Convertible Senior Notes

In March 2018, the Company issued and sold \$143.8 million aggregate principal amount of 0.875% convertible senior notes, or the Notes, in a private placement exempt from the registration requirements of the Securities Act of 1933. The Notes mature on April 1, 2023, unless earlier repurchased by the Company or converted by the holder pursuant to the terms of the Notes. Interest is payable semi-annually in arrears on April 1 and October 1 of each year, commencing on October 1, 2018. The Company received net proceeds from the offering of approximately \$139.4 million, net of initial purchase discounts and debt issuance costs.

The Notes are governed by an Indenture between the Company and U.S. Bank, National Association, as trustee. The Notes are unsecured and rank senior in right of payment to the Company's future indebtedness that is expressly subordinated in right of payment to the Notes; equal in right of payment to the Company's existing and future indebtedness that is not so subordinated; effectively subordinated in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally subordinated to all existing and future indebtedness and other liabilities incurred by the Company's subsidiaries.

Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of the Company's Class A common stock or a combination of cash and shares of Class A common stock, at the Company's election.

The Notes have an initial conversion rate of 25.4544 shares of Class A common stock per \$1,000 principal amount of Notes. This represents an initial effective conversion price of approximately \$39.29 per share of Class A common stock and approximately 3.7 million shares issuable upon conversion. Throughout the term of the Notes, the conversion rate may be adjusted upon the occurrence of certain events. Holders of the Notes will not receive any cash payment representing accrued and unpaid interest, if any, upon conversion of a Note, except in limited circumstances. Accrued but unpaid interest will be deemed to be paid by cash, shares of the Company's Class A common stock or a combination of cash and shares of the Company's Class A common stock paid or delivered, as the case may be, to the holder upon conversion of a Note.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Prior to the close of business on the business day immediately preceding January 1, 2023, the Notes will be convertible at the option of holders during certain periods, only upon satisfaction of certain conditions set forth below. On or after January 1, 2023, until the close of business on the scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their Notes at the conversion rate at any time regardless of whether the conditions set forth below have been met.

Holders may convert all or a portion of their Notes prior to the close of business on the business day immediately preceding January 1, 2023, in multiples of \$1,000 principal amount, only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on June 30, 2018 (and only during such calendar quarter), if the last reported sale price of the Company’s Class A common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five business day period after any five consecutive trading day period, or the Notes Measurement Period, in which the “trading price” (as the term is defined in the Indenture) per \$1,000 principal amount of notes for each trading day of such Notes Measurement Period was less than 98% of the product of the last reported sale price of the Company’s Class A common stock and the conversion rate on each such trading day;
- upon the occurrence of specified corporate events described in the Indenture.

The Company may not redeem the Notes prior to April 5, 2021. The Company may redeem for cash all or any portion of the Notes, at the Company’s option, on or after April 5, 2021 if the last reported sale price of its 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 not more than three trading days preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus any accrued and unpaid interest to, but excluding the redemption date. No sinking fund is provided for the Notes.

As of September 30, 2018, the Notes were not yet convertible.

The Company estimated the implied interest rate of its Notes to be approximately 6.34%, assuming no conversion option. Assumptions used in the estimate were a five-year LIBOR swap rate plus the Company’s credit spread as the borrowing rate of a similar nonconvertible debt instrument to determine the present value of the liability component. The estimated implied interest rate was applied to the Notes, which resulted in a fair value of the liability component of \$110.0 million upon issuance, calculated as the present value of implied future payments based on the \$143.8 million aggregate principal amount. The excess of the principal amount of the liability component over its carrying amount, or the debt discount, is amortized to interest expense over the term of the Notes. The \$33.8 million difference between the aggregate principal amount of \$143.8 million and the estimated fair value of the liability component was recorded in additional paid-in capital as the Notes were not considered redeemable.

In accounting for the transaction costs related to the issuance of the Notes, the Company allocated the total amount incurred to the liability and equity components based on their estimated relative fair values. Issuance costs attributable to the liability component, totaling \$3.6 million, are being amortized to interest expense over the term of the Notes, and issuance costs attributable to the equity component, totaling \$1.1 million, were netted with the equity component in shareholders’ equity.

The Notes consist of the following (in thousands):

	<u>September 30, 2018</u>	<u>December 31, 2017</u>
Liability component:		
Principal	\$ 143,750	\$ —
Less: debt discount, net of amortization	<u>(33,978)</u>	<u>—</u>
Net carrying amount	\$ 109,772	—
Equity component ^(a)	32,607	—

(a) Recorded in the condensed consolidated balance sheet within additional paid-in capital, net of \$1.1 million of issuance costs.

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

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

	Nine Months Ended September 30,	
	2018	2017
Contractual interest expense	\$ 657	\$ —
Amortization of debt discount	3,029	—
Amortization of issuance costs	333	—
Total interest expense	<u>\$ 4,019</u>	<u>—</u>

As of September 30, 2018, the fair value of the Notes, which was determined based on inputs that are observable in the market or that could be derived from, or corroborated with, observable market data, quoted price of the Notes in an over-the-counter market (Level 2), and carrying value of debt instruments (carrying value excludes the equity component of the Company's convertible notes classified in equity) were as follows (in thousands):

	September 30, 2018		December 31, 2017	
	Fair Value	Carrying Value	Fair Value	Carrying value
Convertible senior notes	\$ 161,717	\$ 109,772	—	—

In connection with the issuance of the Notes, the Company entered into capped call transactions, or Capped Calls, with certain counterparties affiliated with the initial purchasers and others. By entering into the Capped Calls, the Company mitigates potential dilution from the conversion of the Notes, effectively increasing the conversion price of the Notes. Under the Capped Calls, the Company purchased capped call options that in the aggregate relate to the total number of shares of the Company's Class A common stock underlying the Notes, with an initial strike price of approximately \$39.29 per share, which corresponds to the initial conversion price of the Notes and is subject to anti-dilution adjustments substantially similar to those applicable to the conversion rate of the Notes, and have a cap price of approximately \$60.44, and is subject to certain adjustments under the terms of the Capped Calls. The cost of the purchased Capped Calls of \$17.1 million was recorded to shareholders' equity and will not be re-measured.

Based on the closing price of our Class A common stock of \$36.96 on September 30, 2018, the if-converted value of the Notes was less than their respective principal amounts.

Note 8. Stockholders' Equity

Preferred Stock

As of September 30, 2018, the Company had authorized 5,000,000 shares of preferred stock, par value \$0.0001, of which no shares were outstanding.

Common Stock

As of September 30, 2018 the Company had authorized 451,000,000 shares of Class A common stock, par value \$0.0001 per share, of which 45,081,034 shares were issued and outstanding. Holders of Class A common stock are entitled to one vote per share.

On May 10, 2018, 9,195,917 shares of Class B common stock, constituting all of the shares of Class B common stock that were issued and outstanding, were automatically converted into shares of Class A common stock, as the Class B common stock ceased to represent at least 25% of the outstanding common stock. Prior to the conversion, the Company had authorized 44,000,000 shares of Class B Common stock. Upon conversion, 36,286,260 were retired, leaving 7,713,740 shares authorized, par value \$0.0001 per share. There are no shares of Class B common stock outstanding as of September 30, 2018.

Note 9. Warrants

On March 8, 2018, the remaining warrant holder exercised warrants to purchase 10,604 shares of Class B common stock. The Company issued 5,532 shares of Class B common stock, which immediately converted to Class A common stock, through a cashless exercise of the warrants. The impact of this exercise was immaterial to the condensed consolidated financial statements. There were no remaining common stock warrants outstanding as of September 30, 2018.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Note 10. Equity Incentive Plans

2016 Equity Incentive Plan

The Company's 2016 Equity Incentive Plan, or the 2016 Plan, became effective on September 21, 2016. The 2016 Plan provides for the grant of incentive stock options, or ISOs, within the meaning of Section 422 of the Internal Revenue Code, to the Company's employees or any of the Company's subsidiaries' employees, and for the grant of non-statutory stock options, or NSOs, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to employees, directors and consultants of the Company and the Company's subsidiaries' employees and consultants. As of September 30, 2018, the total number of shares available for issuance under the 2016 Plan was 5,741,611. These available shares will automatically increase each January 1, by the least of 5,500,000 shares of Class A common stock, 5% of the outstanding shares of all classes of the Company's common stock as of the last day of the Company's immediately preceding fiscal year, and such other amount as the Company's board of directors may determine on or before the last day of the Company's immediately preceding fiscal year.

2016 Employee Stock Purchase Plan

The Company's Employee Stock Purchase Plan, or 2016 ESPP, became effective on September 21, 2016. As of September 30, 2018, the total number of shares of Class A common stock available for issuance under the 2016 ESPP was 1,117,643. These available shares will automatically increase each January 1, by the least of 1,600,000 shares of Class A common stock, 1% of the number of shares of all classes of the Company's common stock outstanding on the immediately preceding fiscal year, and such lesser number of shares as determined by the Company's board of directors.

The 2016 ESPP allows eligible employees to purchase shares of the Company's Class A common stock at a discount through payroll deductions of their eligible compensation, subject to any plan limitations. The 2016 ESPP provides for separate six-month offering periods beginning November 30 and May 31 of each fiscal year.

On each purchase date, eligible employees will purchase the Company's Class A common stock at a price per share equal to 85% of the lesser of (1) the fair market value of the Company's Class A common stock on the first trading day of the offering period, and (2) the fair market value of the Company's common stock on the purchase date.

During the nine months ended September 30, 2018, 125,121 shares of Class A common stock were purchased under the 2016 ESPP.

Stock Options

Stock option activity during the nine months ended September 30, 2018 was as follows (in thousands, except per share and contractual life data):

	Options Outstanding	Weighted- Average Exercise Price per Share	Weighted- Average Remaining Contractual Life (years)	Total Intrinsic Value
Outstanding at December 31, 2017	7,490	\$ 10.76		
Options granted	—	—		
Options exercised	(2,148)	8.40		
Options forfeited or canceled	(314)	15.03		
Outstanding at September 30, 2018	<u>5,028</u>	\$ 11.51	6.13	\$ 127,969
Vested and expected to vest at September 30, 2018	4,923	\$ 11.43	6.10	\$ 125,678
Exercisable at September 30, 2018	3,628	\$ 10.11	5.53	\$ 97,415

As of September 30, 2018, there was a total of \$8.1 million of unrecognized compensation cost, adjusted for estimated forfeitures, related to unvested stock-based compensation arrangements associated with options granted. That cost is expected to be recognized over a weighted-average remaining expected term of 1.8 years.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

RSUs

RSU activity under the 2016 Plan during the nine months ended September 30, 2018 was as follows (in thousands, except per share data):

	RSUs Outstanding	Weighted-Average Grant Date Fair Value per Share
Non-Vested outstanding at December 31, 2017	2,030	\$ 16.15
Granted	1,228	31.88
Vested	(514)	14.90
Forfeited or canceled	(311)	19.91
Non-Vested outstanding at September 30, 2018	<u>2,433</u>	<u>\$ 23.90</u>

As of September 30, 2018, total unrecognized compensation cost, adjusted for estimated forfeitures, related to unvested RSUs was approximately \$52.0 million and the weighted-average remaining vesting period was 3.1 years.

Stock-based compensation expense recognized in the Company's statement of operations was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of revenue				
Subscription	\$ 286	\$ 330	\$ 894	\$ 927
Professional services	507	294	1,314	842
Operating expenses				
Research and development	1,516	1,179	4,308	3,332
Sales and marketing	2,050	1,239	5,186	3,316
General and administrative	1,796	1,315	4,984	3,250
Total stock-based compensation	<u>\$ 6,155</u>	<u>\$ 4,357</u>	<u>\$ 16,686</u>	<u>\$ 11,667</u>

Note 11. Deferred Revenue and Performance Obligations

For subscription and services revenue, the Company typically invoices in advance of providing services. Deferred revenue represents the unearned revenue on cash receipts or accounts receivable for the sale of subscriptions and professional services for which services have not yet been provided. In the case where amounts are not collected, but the service has been provided and the revenue has been recognized, the amounts are recorded in accounts receivable. The opening and ending balances of the Company's deferred revenue are as follows:

	Nine Months Ended September 30, 2018		
	Subscription	Services	Total
Deferred revenue balance at December 31, 2017	\$ 110,934	\$ 8,367	\$ 119,301
Revenue recognized during the period	(144,287)	(21,827)	(166,114)
Additions to deferred revenue during the period, including deferred revenue acquired	148,463	22,511	170,974
Deferred revenue balance at September 30, 2018	<u>\$ 115,110</u>	<u>\$ 9,051</u>	<u>\$ 124,161</u>

During the three months ended September 30, 2018 and 2017, \$46.2 million and \$32.6 million of subscription revenue was recognized, respectively, that was included in the deferred revenue balances at the beginning of the respective periods. During the three months ended September 30, 2018 and 2017, \$3.2 million and \$2.0 million of professional services revenue was recognized, respectively, that was included in the deferred revenue balances at the beginning of the respective periods. During the nine months ended September 30, 2018 and 2017, \$96.8 million and \$81.1 million of subscription revenue was recognized, respectively, that was included in the deferred revenue balances at the beginning of the respective periods. During the nine months ended September 30, 2018 and 2017, \$5.9 million and \$4.3 million of professional services revenue was recognized, respectively, that was included in the deferred revenue balances at the beginning of the respective periods.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Transaction Price Allocated to the Remaining Performance Obligations

As of September 30, 2018, approximately \$223.8 million of subscription revenue is expected to be recognized from remaining performance obligations for subscription contracts. The Company expects to recognize revenue on approximately 90% of these remaining performance obligations over the next 24 months, with the balance recognized thereafter. As of September 30, 2018, approximately \$17.2 million of services revenue is expected to be recognized from remaining performance obligations for service contracts. The Company will recognize the remaining performance obligations for services revenue as services are performed.

Note 12. Net Loss Per Share Attributable to Common Stockholders

The Company calculates basic net loss per share attributable to common stockholders by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period.

The diluted net loss per share attributable to common stockholders is computed by giving effect to all potential shares of common stock, including outstanding options to purchase common stock, common stock related to unvested restricted stock units, warrants to purchase common stock, convertible senior notes to the extent dilutive, and common stock issuable pursuant to the employee stock purchase plan. Basic and diluted net loss per share was the same for each period presented, as the inclusion of all potential common shares outstanding would have been antidilutive.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
	<u>*As Adjusted</u>	<u>*As Adjusted</u>	<u>*As Adjusted</u>	<u>*As Adjusted</u>
Numerator:				
Net loss attributable to common stockholders	\$ (4,570)	\$ (4,112)	\$ (17,966)	\$ (18,163)
Denominator:				
Weighted-average common shares outstanding - basic and diluted	44,785	40,120	43,830	39,240
Net loss per common share - basic and diluted	<u>\$ (0.10)</u>	<u>\$ (0.10)</u>	<u>\$ (0.41)</u>	<u>\$ (0.46)</u>

*See Note 1 for a summary of adjustments

The following weighted-average outstanding shares of potentially dilutive securities were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented because the impact of including them would have been antidilutive (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Stock options to purchase common stock	5,312	9,224	6,075	10,127
Unvested restricted stock units (RSUs)	2,485	1,829	2,315	1,257
Common stock issuable under 2016 ESPP	106	158	120	207
Warrants to purchase common stock	—	11	3	11
Convertible senior notes	3,659	—	2,573	—
	<u>11,562</u>	<u>11,222</u>	<u>11,086</u>	<u>11,602</u>

Note 13. Segments

The Company operates its business as one operating segment. Its chief operating decision makers, or CODMs, are its Chief Executive Officer and Chief Financial Officer. The CODMs review separate revenue information for the Company's subscription and professional services revenue, and all other financial information, including free cash flow, presented on a consolidated basis, for purposes of making operating decisions, assessing financial performance and allocating resources.

Apptio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

Revenue

The following table sets forth the Company's total revenue by geographic area for the three and nine months ended September 30, 2018 and 2017, as determined based on the billing address of the customer (in thousands):

	<u>Three Months Ended</u> <u>September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
Americas	\$ 41,891	\$ 33,541	\$ 119,765	\$ 98,080
EMEA	14,302	10,928	43,049	31,470
APAC	3,030	2,527	9,524	6,602
	<u>\$ 59,223</u>	<u>\$ 46,996</u>	<u>\$ 172,338</u>	<u>\$ 136,152</u>

Revenue attributed to the United States was approximately 98% and 99% of Americas revenue for the three months ended September 30, 2018 and 2017, respectively, and 98% and 99% for the nine months ended September 30, 2018 and 2017, respectively.

Note 14. Commitments and Contingencies

Leases

The Company has entered into non-cancellable operating leases, primarily related to rental of office space and certain office equipment. Certain lease agreements include rent payment escalation clauses and free rent (rent holidays). The total amount of base rentals over the term of the leases is charged to expense using the straight-line method with the amount of the rental expense in excess of lease payments recorded as a deferred rent liability. In May 2018, the Company amended its office lease in North Carolina by adding an additional 4,000 square feet and extending the term of the lease to 2025. Future minimum payments under non-cancellable operating and capital lease agreements as of September 30, 2018 were as follows (in thousands):

<u>Years Ending December 31,</u>	<u>Operating Leases</u>	<u>Capital Leases</u>
Remainder of 2018	\$ 1,203	\$ 9
2019	4,647	33
2020	3,884	33
2021	4,109	33
2022	5,097	33
Thereafter	1,149	—
Total Minimum Lease Payments	<u>\$ 20,089</u>	\$ 141
Less amounts representing interest		(13)
Present value of capital lease obligations		128
Less: Current portion		(25)
Long-term portion of capital lease obligations		<u>\$ 103</u>

Other Commitments

The Company has entered into certain other non-cancellable agreements for software and marketing services that specify all significant terms, including fixed or minimum services to be used, pricing provisions and the approximate timing of the transaction. There have been no material changes for commitments compared to those discussed in Note 11 of the notes to the consolidated financial statements as disclosed in the Company's Form 10-K.

Legal Matters

From time to time, the Company has become involved in claims and other legal matters arising in the ordinary course of business. The Company makes a provision for a liability relating to legal matters when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. These provisions are reviewed at least quarterly and adjusted to reflect the impacts of negotiations, estimated settlements, legal rulings, advice of legal counsel and other information and events pertaining to a particular matter. Although claims are inherently unpredictable, the Company is currently not aware of any matters that

Appfio, Inc.
Notes to Unaudited Condensed Consolidated Financial Statements (Continued)

may have a material adverse effect on the Company's business, financial position, results of operations or cash flows, individually or in the aggregate.

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

This discussion contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements containing words such as "may," "believe," "anticipate," "expect," "intend," "plan," "project," "projections," "business outlook," "estimate," or similar expressions constitute forward-looking statements. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements. They include, but are not limited to, statements about our:

- *market opportunity, market leadership and ability to compete effectively;*
- *anticipated growth strategies and our ability to effectively manage that growth and execute these strategies;*
- *future financial performance, the expected use of proceeds from our initial public and convertible senior notes offerings and future macroeconomic conditions; and*
- *ability to adequately protect our intellectual property and the regulatory regime for our products and services.*

Our actual results may differ materially from those contained in or implied by any forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this report, including those factors discussed in Part II, Item 1A (Risk Factors).

In light of the significant uncertainties and risks inherent in these forward-looking statements, you should not regard these statements as a representation or warranty by us or anyone else that we will achieve our objectives and plans in any specified time frame, or at all, or as predictions of future events. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Overview

We are the leading provider of Technology Business Management, or TBM, solutions. Our cloud-based platform and SaaS applications enable IT leaders to analyze, optimize and plan technology investments, and benchmark their financial and operational performance against peers. We empower IT leaders to transform IT into a service provider, navigate the cloud transition, and shift technology resources to drive more business innovation.

We were founded in 2007 to deliver cloud-based TBM solutions to global enterprises. Our cycle of frequent updates has facilitated rapid innovation and the introduction of new applications throughout our history. We began offering our first TBM application via our extensible platform in 2008. Since then, we have continued to invest in product innovation and have consistently introduced new applications and capabilities to the market.

Because we offer our applications on a subscription basis, typically on contracts with one- to three-year terms, we have visibility into a substantial portion of future revenue. Subscription fees are based on two primary factors: (1) the customer's annual costs being managed by the applications; and (2) the applications or capabilities for which the customer has subscribed. For some applications, pricing is also impacted by the number of users. We recognize revenue from subscription fees ratably over the term of the contract. We sell our offerings primarily through a direct sales force and we engage in a variety of marketing activities, including traditional and online activities as well as participation in, and support of, the TBM Council, which are designed to provide sales lead generation, sales support and market awareness. Customers may subscribe for one or more of our applications, and within those applications they may choose to subscribe for all or a portion of the respective application's capabilities, which are segmented into modules. For those customers that do not initially implement all of our applications, we seek to sell additional applications and modules over time. We believe that there is a significant opportunity to continue to expand the number of applications deployed by existing customers. We also derive revenue from professional services. Professional services revenue includes revenue from application configuration, integration, change management, education and training services, and conference registration and sponsorship fees. This revenue is largely driven by the number and mix of implementations that we perform in a quarter.

We generate the majority of our revenue in North America; however, we are focused on growing our international business. Revenue generated from customers outside of North America accounted for 30% and 29% in the three months ended September 30, 2018 and 2017, respectively and 31% and 28%, in the nine months ended September 30, 2018 and 2017, respectively. For additional information regarding revenue generated from each geographic segment, please see Note 13 of the notes to our condensed consolidated financial statements.

We have grown significantly in a relatively short period of time. Our diverse customer base includes companies across industries and sizes, and our direct sales force has historically targeted organizations with annual IT spend of \$100 million or more. Beginning in 2014, we expanded the focus of our sales force to include a broader set of target customers, often referred to as the Global 10,000, which includes many companies with annual IT spend of less than \$100 million. Recently, we have begun targeting mid-market companies which includes companies smaller than those in the Global 10,000. We expect these customers will account for an increasing amount of our revenue over time. A substantial majority of our revenue growth has come from new customers. Our current financial focus is on growing our revenue and expanding our customer base. While we are incurring losses today, we strive to invest in a disciplined manner across all of our functional areas to drive continued near-term revenue growth and support our long-term initiatives. Our operating expenses have increased in absolute dollars in recent periods, primarily due to employee growth, and more recently, the acquisition of Digital Fuel SV, LLC, or Digital Fuel, as discussed below. We had 846 and 745 employees as of September 30, 2018 and 2017, respectively.

We had total revenue of \$59.2 million and \$47.0 million for the three months ended September 30, 2018 and 2017, respectively, reflecting a period-over-period increase of 26%. Subscription revenue was \$49.6 million and \$39.4 million for the three months ended September 30, 2018 and 2017, respectively, reflecting a period-over-period increase of 26%. For the nine months ended September 30, 2018 and 2017, total revenue was \$172.3 million and \$136.2 million respectively, reflecting a period-over-period increase of 27%. Subscription revenue was \$144.3 million and \$112.9 million for the nine months ended September 30, 2018 and 2017, respectively, reflecting a period-over-period increase of 28%. We incurred net losses of \$4.6 million and \$4.1 million for the three months ended September 30, 2018 and 2017, respectively, and \$18.0 million and \$18.2 million for the nine months ended September 30, 2018 and 2017, respectively. We had an accumulated deficit of \$214.8 million as of September 30, 2018. We expect to incur losses for the foreseeable future and may not be able to achieve or sustain profitability.

Our Business Model

Our business model focuses on maximizing the lifetime value of customer relationships. We make significant investments in acquiring new customers and believe that we will be able to achieve a substantial positive return on these investments by retaining customers, increasing the number of applications and modules deployed by customers over time, and increasing the spend managed by our applications. In connection with the acquisition of new customers, we incur significant upfront costs, including marketing costs associated with acquiring new customers, which are expensed as incurred. We recognize subscription revenue ratably over the term of the subscription period, which commences when all of the revenue recognition criteria have been met.

Our objective is for each customer relationship to be profitable over its lifetime, however, the costs we incur with respect to any customer relationship may exceed revenue in earlier periods because we recognize those costs faster than we recognize the associated revenue. Over time, we expect a large portion of our customers to renew their subscriptions, purchase additional applications and expand their IT spend managed by our applications. We also expect the proportion of annual revenue from existing customers to grow relative to annual revenue from new customers. Our sales and marketing expense for renewals and additional sales to existing customers are significantly less than those for sales to new customers while the cost of revenue remains relatively constant. As a result, we believe the mix shift over time between new and existing customers will have a positive impact on our operating margins. Specifically, as the percentage of our annual revenue from existing customers grows relative to the annual revenue from new customers, we would expect the percentage of revenue spent on sales and marketing to decline.

Key Factors Affecting Our Performance

Net Subscription Dollar Retention Rate

We believe that our net subscription dollar retention rate provides insight into our ability to retain and increase revenue from our customers, as well as their potential long-term value to us. Accordingly, we compare the aggregate annual contract value of our customer base at the end of the prior 12 month period, which we refer to as the base annual contract value, to the aggregate annual contract value from the same group of customers at the end of the current 12 month period, which we refer to as the retained annual contract value. We calculate our net subscription dollar retention rate on a trailing 12 month basis by dividing the retained annual contract value by the base annual contract value. In the event a customer renews a subscription for a period that begins and ends in the same 12 month period, the value of that partial-year subscription is included in our calculation of retained annual contract value. For the acquired Digital Fuel business, only customers utilizing the SaaS offering are included in the base annual contract value for calculating the net subscription dollar retention rate. If a Digital Fuel on-premise customer converts to a SaaS contract at a fee higher than the recurring support and maintenance fee, the incremental annual contract value will be included in the net subscription dollar retention rate calculation. Our net subscription dollar retention rate was approximately 102% for the 12 month period ended September 30, 2018, and may fluctuate as a result of a number of factors.

Investment in Growth

We intend to continue investing for long-term growth. We plan to continue to expand our sales and marketing organizations to sell our offerings globally. In addition, we have invested, and expect to continue to invest, in our product development efforts to deliver additional compelling applications and to address customers' evolving needs. We are also investing in personnel to service our growing customer base. These investments will increase operating expenses on an absolute dollar basis for the foreseeable future.

Many of these investments will occur in advance of our experiencing any direct benefit from them and will make it difficult to determine if we are allocating our resources efficiently. However, we expect research and development, sales and marketing, and general and administrative expenses to decrease as a percentage of total revenue over the long-term as revenue grows, and we anticipate that we will gain economies of scale as our customer base grows.

Since our inception, we have invested in professional services to help ensure that customers successfully deploy and adopt our applications. We continue to also expand our professional services partner ecosystem to further support our customers. We believe that our investment in professional services, as well as partners building consulting practices around our company, will drive additional customer subscriptions and continued growth in revenue. In addition, over the long-term, we expect professional services revenue to decrease as a percentage of total revenue as our customer base continues to grow and as the effort required to deploy our solutions decreases, through product enhancements and our efforts to drive increased customer adoption of our standardized IT operating model, the Aptio TBM Unified Model, or ATUM.

Investment in Infrastructure

We have made, and intend to continue to make, substantial investments in infrastructure that will impact cost of revenue, operating expenses and capital expenditures. We intend to invest to support growth at our leased data centers and with public cloud infrastructure providers to deliver enhanced levels of service to our customers. We intend to continue to invest in enhancements to our cloud architecture, which are designed to provide our customers with enhanced security, scalability and availability. We intend to continue to evaluate the expansion of our data center locations to address additional geographic markets. In addition, we may expand existing and establish new facilities in the future to accommodate our projected headcount growth at various locations around the world. We may incur substantial costs in connection with such expansion efforts, including leasehold improvements, equipment costs, and, if headcount increases faster than we expect, potentially lease termination payments to enter into new leases for larger space.

Sales Cycles

We target sales efforts at enterprises and face long sales cycles, complex customer requirements, substantial upfront sales costs, and a relatively low and difficult to predict volume of sales on a quarter-by-quarter basis. This makes it difficult to predict with certainty our sales and related operating performance in any given period. Our typical sales cycle is approximately six months, but can be highly variable. Historically we have experienced an increased volume of sales in the last few weeks of the quarter which can affect the timing of recognized revenue and the possibility that sales cycles extend beyond the end of a quarter. Extending sales cycles beyond the end of a quarter, particularly for sizeable transactions, can harm forecasting accuracy and impact billings and new customer acquisition metrics for the quarter in which they are forecasted to close.

Meeting our financial plan in part depends on a predictable growth rate in the acquisition of new customers that represent high annual contract value, while additional growth and enhanced predictability in part depends on an increased volume of new customers with a relatively lower annual contract value. Our financial performance and the predictability of our quarterly financial results may be harmed by intermittent failures to secure the higher value enterprise agreements, or increase the volume of transactions overall, according to our forecasts, and depends in large part on the successful execution of our direct sales team.

Focus on Free Cash Flow

We define free cash flow as cash used in operating activities less purchases of property and equipment. We consider free cash flow to be an important measure that we are focused on to run our business. For a reconciliation of free cash flow to the related U.S. generally accepted accounting principles, or GAAP, measure, net cash used in operating activities, see the section captioned "Non-GAAP Financial Measures."

Components of Our Results of Operations

Revenue

We derive revenue from two sources: (1) subscription revenue, which is comprised of subscription fees from customers accessing our platform, fees for additional support beyond the standard support that is included in the basic subscription fees, and fees

for subscription-based online training, as well as term-based software license fees and support and maintenance fees related to customers of the acquired Digital Fuel business; and (2) professional services, which consist of fees associated with the implementation and configuration of our applications, as well as fees for in-person training and conference registration and sponsorship fees for the TBM Council, the operations of which we consolidate in our financial statements given the nature of our relationship.

Subscription revenue is driven primarily by the acquisition of new customers and renewals by existing customers, upsells to our existing customer base, the amount of annual spend our customers are licensed to manage with our applications, and the number of applications or capabilities for which the customer has subscribed.

Our contracts typically vary in length between one and three years. All subscription and support fees that are billed in advance of service are recorded in deferred revenue. Subscription and support-based revenue is recognized ratably over the subscription term. As a result, most of the revenue that we report in each period is derived from the recognition of deferred revenue relating to subscriptions entered into during previous periods. Pricing includes multiple environments, hosting and support services, data backup and disaster recovery services, as well as future upgrades, when and if available, offered during the subscription period. We typically invoice our customers for subscription fees in annual increments upon execution of the initial contract or subsequent renewal, but contract lengths and billing frequencies may vary. Therefore, the annualized value of the arrangements that we enter into with our customers may not be fully reflected in deferred revenue at any single point in time. Accordingly, we do not believe that the change in deferred revenue for any period is an accurate indicator of future revenue for a given period of time. Our contracts are generally non-cancelable during the subscription term, though a customer can terminate for breach if we materially fail to perform.

A typical new customer implementation takes three to five months depending on the customer's complexity and timeliness. All professional services fees that are billed in advance of service are recorded in deferred revenue. Our professional services engagements are priced on either a time-and-materials basis or on a fixed-fee basis. In addition, sometimes partners will perform implementation services directly to our customers for which we do not receive professional services revenue. For time-and-materials arrangements, we recognize revenue as hours are worked at the stated hourly rate. For fixed-fee arrangements, we recognize professional services revenue using the percentage of completion method measured on an hours incurred basis. Professional services yield lower gross margins than subscriptions due to the labor-intensive nature of professional services.

On occasion, we sell our applications through third-party resellers. These arrangements typically call for the reseller to retain a portion of the subscription fee paid by the customer as compensation. Since we are typically responsible for the acceptability of the services purchased by the customer, we are the primary obligor in the transaction and, therefore, record revenue on a gross basis based on the amount billed to the customer. Subsequent to the adoption of ASC 606, reseller fees are capitalized and amortized through sales and marketing expense over a period between one to four years.

Cost of Revenue and Gross Margin

Cost of subscription revenue consists primarily of employee-related costs, including payroll, benefits and stock-based compensation expense for our technology operations and customer support teams, fees paid to our managed hosting providers and other third-party service providers, amortization of capitalized software development costs and acquired technology, and allocated overhead costs, which include rent, facilities and costs related to internal IT. We expect cost of subscription revenue to continue to increase in absolute dollars for the foreseeable future as our customer base grows.

Subscription gross margin, or subscription revenue less cost of subscription revenue expressed as a percentage of subscription revenue, can and does fluctuate based on a number of factors, including the timing and extent of the fees that we pay to our hosting providers and other third-party service providers, and the timing and extent of the investments that we make in additional data center infrastructure and capabilities. We expect subscription gross margin to increase modestly over the long-term, although it may fluctuate from period to period depending on the interplay of the factors discussed above. Because we have data centers in each of our three primary geographies, we expect to be able to more efficiently add capacity within these data centers to support our anticipated customer growth.

Cost of professional services revenue consists primarily of personnel costs of our professional services organization, including salaries, employee benefits, travel expenses, bonuses and stock-based compensation expense, as well as allocated overhead costs and costs associated with TBM Council activities. We previously recorded costs associated with TBM Council activities within sales and marketing expenses. We plan to record these costs within cost of professional services going forward, with this change being more evident in the fourth quarter when our annual TBM Council conference occurs. We expect cost of professional services revenue to continue to increase in absolute dollars for the foreseeable future as we further expand our professional services organization to serve our growing customer base.

Professional services gross margin, or professional services revenue less cost of professional services revenue expressed as a percentage of professional services revenue, can and does fluctuate based on a number of factors, including the timing and extent of our investments in our professional services organization. The primary focus of our professional services business will continue to be providing high-quality customer deployments that allow customers to realize rapid value from our solutions and become long-term, loyal customers. In the future, we may choose to invest in our professional services organization at a pace faster than professional services revenue growth, in which case we may experience a decline in professional services gross margin. We expect professional services gross margin to remain relatively consistent over the long-term, although it may fluctuate from period to period depending on the interplay of the factors discussed above.

We expect total gross margin to increase modestly over the long-term as our subscription revenue increases as a percentage of total revenue, as we realize operational efficiencies in our data centers and public cloud hosting environments, and as we continue to leverage our partners to help us provide professional services, although total gross margin may fluctuate from period to period depending on the interplay of the factors discussed above.

Operating Expenses

Research and Development. Research and development expenses consist primarily of personnel costs, employee benefits, stock-based compensation expense and other headcount-related costs associated with product development, hosting costs and depreciation of equipment used in research and development, consulting fees, and allocated overhead costs. For development costs related to our software and internal use software, qualifying internally developed software costs incurred during the application development stage are capitalized. Costs related to preliminary project activities and post-implementation activities are expensed as incurred. We expect research and development expenses to continue to increase in absolute dollars for the foreseeable future as we continue to increase the functionality and otherwise enhance our platform and develop new applications. However, we expect research and development expenses to decrease modestly as a percentage of total revenue over the long-term as our customer base and revenue grows, although they may fluctuate as a percentage of total revenue from period to period due to the seasonality of revenue and the timing and extent of these expenses.

Sales and Marketing. Sales and marketing expenses consist primarily of personnel costs for our sales and marketing employees, including sales commissions and incentives, employee benefits and stock-based compensation expense, marketing programs for lead generation, and allocated overhead costs. Sales commissions are considered incremental costs of obtaining a contract with a customer and are deferred and amortized on a straight-line basis over the period of benefit that we have determined to be four years for new subscription agreements, over the term of the respective subscription for renewals of subscription agreements, and over one year for service contracts. We expect sales and marketing expenses to continue to increase and continue to be our largest component of operating expenses for the foreseeable future as we continue to expand our direct sales teams, increase our marketing activities, grow our international operations, and build brand awareness. However, we expect sales and marketing expenses to decrease as a percentage of total revenue over the long-term, although they may fluctuate as a percentage of total revenue from period to period due to the seasonality of revenue and the timing and extent of these expenses.

General and Administrative. General and administrative expenses consist primarily of personnel costs and related expenses, including payroll, employee benefits and stock-based compensation expense for executive, finance, legal, human resources, and administrative personnel, professional fees for external legal, accounting and other consulting services and allocated overhead costs. We expect general and administrative expenses will continue to increase in absolute dollars for the foreseeable future as we continue to grow and incur the costs of compliance associated with being a publicly traded company, including increased legal, audit and consulting fees. Although general and administrative expenses may fluctuate as a percentage of total revenue from period to period due to the seasonality of revenue and the timing and extent of these expenses, in the near term, general and administrative expenses may increase as a percentage of total revenue; however, we expect general and administrative expenses to decrease modestly as a percentage of total revenue over the long-term as we focus on processes, systems and controls to enable our internal support functions to scale with the growth of our business.

Other Income (Expense)

Interest Expense. Interest expense consists primarily of interest expense on our convertible debt, including the amortization of debt discount and transaction related costs and from our capital leases.

Interest income. Interest income is derived from our available-for-sale investments.

Foreign Exchange Gain (Loss). Foreign exchange gain (loss) consists primarily of foreign currency remeasurement and transaction gains and losses related to the impact of transactions denominated in a currency other than the functional currency. With the exception of our newly acquired foreign subsidiary, Digital Fuel International Limited, the functional currency for our parent and

subsidiary entities is the U.S. dollar. The functional currency for Digital Fuel International Limited is the British Pound Sterling. As we have expanded our international operations, our exposure to fluctuations in foreign currencies has increased, and we expect this trend to continue.

Provision for Income Taxes. Provision for income taxes consists primarily of income taxes in certain foreign jurisdictions in which we conduct business. As we expand our international operations, we anticipate our foreign tax expense will increase moderately. We have a full valuation allowance for net deferred tax assets, including net operating loss carryforwards, and tax credits related primarily to research and development. We expect to maintain this full valuation allowance for the foreseeable future.

Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe free cash flow, which is a non-GAAP measure, is useful in evaluating our business performance. We define free cash flow as net cash used in operating activities, less purchases of property and equipment. We regularly review this liquidity measure because we believe free cash flow facilitates period-to-period comparisons of liquidity. We consider free cash flow to be an important measure because it measures the amount of cash we generate from our operations after our capital expenditures and reflects changes in working capital. We use free cash flow in conjunction with traditional GAAP measures as part of our overall assessment of our liquidity, including the preparation of our annual operating budget and quarterly forecasts, to evaluate the effectiveness of our business strategies and to communicate with our board of directors concerning our liquidity.

Our definitions may differ from the definitions used by other companies, and, therefore, comparability may be limited. In addition, other companies may not publish these or similar metrics. Thus, our free cash flow should be considered in addition to, not as a substitute for, or in isolation from, measures prepared in accordance with GAAP.

We compensate for these limitations by providing investors and other users of our financial information reconciliations of free cash flow to the related GAAP financial measure, net cash used in operating activities. We encourage investors and others to review our financial information in its entirety, not to rely on any single financial measure and to view free cash flow in conjunction with the related GAAP financial measure.

The following table provides a reconciliation of net cash provided by operating activities to free cash flow:

	Nine Months Ended September 30,	
	2018	2017
	(in thousands)	
Net cash provided by operating activities	\$ 7,839	\$ 10,903
Less: purchases of property and equipment	(2,238)	(2,837)
Free cash flow	<u>\$ 5,601</u>	<u>\$ 8,066</u>
Net cash used in investing activities	<u>\$ (27,023)</u>	<u>\$ (33,970)</u>
Net cash provided by financing activities	<u>\$ 142,280</u>	<u>\$ 10,924</u>

Results of Operations

The following tables set forth our results of operations for the periods presented and as a percentage of our total revenue for those periods.

	<u>Three Months Ended</u> <u>September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	<u>* As Adjusted</u>		<u>* As Adjusted</u>	
	(in thousands)			
Revenue				
Subscription	\$ 49,610	\$ 39,426	\$ 144,287	\$ 112,860
Professional services	9,613	7,570	28,051	23,292
Total revenue	59,223	46,996	172,338	136,152
Cost of revenue				
Subscription (1)	9,157	7,167	27,777	22,269
Professional services (1)	8,916	6,763	26,925	21,599
Total cost of revenue	18,073	13,930	54,702	43,868
Gross profit	41,150	33,066	117,636	92,284
Operating expenses				
Research and development (1)	12,130	10,139	36,204	30,060
Sales and marketing (1)	23,993	19,792	70,695	60,401
General and administrative (1)	7,905	7,188	25,558	20,342
Total operating expenses	44,028	37,119	132,457	110,803
Loss from operations	(2,878)	(4,053)	(14,821)	(18,519)
Other (expense) income				
Interest expense	(1,897)	(1)	(4,021)	(21)
Interest income	1,126	326	2,375	859
Other income (expense), net	109	(14)	81	(27)
Foreign exchange (loss) gain	(335)	93	(797)	159
Loss before income taxes	(3,875)	(3,649)	(17,183)	(17,549)
Provision for income taxes	(695)	(463)	(783)	(614)
Net loss	<u>\$ (4,570)</u>	<u>\$ (4,112)</u>	<u>\$ (17,966)</u>	<u>\$ (18,163)</u>

*See Note 1 in the condensed consolidated statements for a summary of adjustments

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

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	(in thousands)			
Cost of revenue				
Subscription	\$ 286	\$ 330	\$ 894	\$ 927
Professional services	507	294	1,314	842
Operating expenses				
Research and development	1,516	1,179	4,308	3,332
Sales and marketing	2,050	1,239	5,186	3,316
General and administrative	1,796	1,315	4,984	3,250
Total stock-based compensation	<u>\$ 6,155</u>	<u>\$ 4,357</u>	<u>\$ 16,686</u>	<u>\$ 11,667</u>

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2018</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>
	<i>*As Adjusted</i>		<i>*As Adjusted</i>	
	<i>(as a percentage of total revenue)</i>			
Revenue				
Subscription	84%	84%	84%	83%
Professional services	16	16	16	17
Total revenue	100	100	100	100
Cost of revenue				
Subscription	15	15	16	16
Professional services	15	15	16	16
Total cost of revenue	30	30	32	32
Gross profit	70	70	68	68
Operating expenses				
Research and development	21	22	21	22
Sales and marketing	41	42	41	44
General and administrative	13	15	15	15
Total operating expenses	75	79	77	81
Loss from operations	(5)	(9)	(9)	(13)
Other (expense) income				
Interest expense	(3)	—	(2)	—
Interest income	2	1	1	—
Other income (expense), net	—	—	—	—
Foreign exchange (loss) gain	(1)	—	—	—
Loss before income taxes	(7)	(8)	(10)	(13)
Provision for income taxes	(1)	(1)	—	—
Net loss	(8)%	(9)%	(10)%	(13)%

*See Note 1 in the condensed consolidated statements for a summary of adjustments

Three Months Ended September 30, 2018 Compared to the Three Months Ended September 30, 2017

Revenue

	<u>Three Months Ended September 30,</u>		<u>Change</u>	
	<u>2018</u>	<u>2017</u>	<u>Amount</u>	<u>%</u>
	<i>(dollars in thousands)</i>			
Subscription	\$ 49,610	\$ 39,426	\$ 10,184	26%
Professional services	9,613	7,570	2,043	27
Total revenue	\$ 59,223	\$ 46,996	\$ 12,227	26

Subscription revenue increased for the three months ended September 30, 2018 primarily due to the impact of new customer acquisitions, sales to existing customers and to a lesser extent, inclusion of revenue from our acquisition of Digital Fuel. Professional services revenue increased for the three months ended September 30, 2018 primarily due to the impact of new customer acquisitions as well as, the inclusion of revenue from our acquisition of Digital Fuel.

Cost of Revenue and Gross Margin

	Three Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Cost of revenue:				
Subscription	\$ 9,157	\$ 7,167	\$ 1,990	28%
Professional services	8,916	6,763	2,153	32
Total cost of revenue	<u>\$ 18,073</u>	<u>\$ 13,930</u>	<u>\$ 4,143</u>	<u>30</u>
Gross margin:				
Subscription	82%	82%		
Professional services	7	11		
Total gross margin	70	70		

The overall increase in cost of subscription revenue was primarily attributable to an increase in amortization of acquisition-related intangible assets of \$0.9 million due to our acquisition of Digital Fuel during the first quarter of 2018, increased personnel-related costs of \$0.5 million driven by headcount growth, which resulted in increased employee compensation, stock-based compensation, benefits and travel costs, and increased consulting costs of \$0.4 million.

The overall increase in cost of professional services revenue was primarily attributable to an increase in personnel-related costs of \$1.4 million, driven by headcount growth related to the acquisition and integration of Digital Fuel, and an increase in outside services of \$0.4 million.

Subscription gross margin was flat in the three months ended September 30, 2018 as compared to the same period in 2017.

Professional services gross margin decreased in the three months ended September 30, 2018 as compared to the same period in 2017, due to an increase in the use of partners, who typically have higher costs than internal resources to implement services in an effort to expand our partner community, and lower internal billable utilization rates due to investment in non-billable work related to new product training.

Operating Expenses

Research and Development

	Three Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Research and development	\$ 12,130	\$ 10,139	\$ 1,991	20%
Percentage of total revenue	21%	22%		

Research and development expenses increased primarily due to increased personnel-related costs of \$1.5 million, consisting of increased employee compensation and benefits costs of \$1.1 million and additional stock-based compensation of \$0.4 million, driven by headcount growth. Average headcount in research and development increased 11% in the three months ended September 30, 2018 compared to the same period in 2017 to support continued upgrades and enhancements to our platform and applications and to develop new technologies.

Sales and Marketing

	Three Months Ended September 30,		Change	
	2018	2017	Amount	%
	*As Adjusted			
	(dollars in thousands)			
Sales and marketing	\$ 23,993	\$ 19,792	\$ 4,201	21%
Percentage of total revenue	41%	42%		

*See Note 1 in the condensed consolidated statements for a summary of adjustments

Sales and marketing expenses increased due to the expansion of our sales force and increased sales, including personnel acquired from Digital Fuel. Average headcount in sales and marketing increased 6% in the three months ended September 30, 2018 as

compared to the same period in 2017, contributing to a \$3.1 million increase in personnel-related costs, consisting of \$1.3 million related to increased employee compensation, benefits, and increased travel costs associated with our direct sales force, an increase of \$1.0 million related to commissions, and additional stock-based compensation of \$0.8 million, for the three months ended September 30, 2018.

General and Administrative

	Three Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
General and administrative	\$ 7,905	\$ 7,188	\$ 717	10%
Percentage of total revenue	13%	15%		

General and administrative expenses increased primarily due to increased personnel-related costs of \$1.0 million, consisting of increased employee compensation and benefits of \$0.5 million and an increase in stock-based compensation of \$0.5 million.

Other Income (Expense)

	Three Months Ended September 30,		Change	
	2018	2017 *As Adjusted	Amount	%
	(dollars in thousands)			
Interest expense	\$ (1,897)	\$ (1)	\$ (1,896)	NM**
Interest income	1,126	326	800	245%
Other (expense) income, net	109	(14)	123	NM**
Foreign exchange (loss) gain	(335)	93	(428)	(460)

*See Note 1 in the condensed consolidated statements for a summary of adjustments

**Not meaningful

Interest expense increased by \$1.9 million during the three months ended September 30, 2018 compared to the same period in 2017, as a result of the issuance of the Notes in March 2018. The amortization of debt discount and transaction costs, as well as the coupon interest is recorded to interest expense. Interest income increased approximately \$0.8 million due to higher investment balances. The increase in foreign exchange loss was primarily due to fluctuations in foreign exchange rates as well as increases in transactions subject to foreign currency remeasurement.

Benefit From (Provision For) Income Taxes

	Three Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Provision for income taxes	\$ (695)	\$ (463)	\$ (232)	50%

The increase in provision for income taxes was due to a change in the geographical mix of taxable earnings from our foreign operations, specifically related to foreign currency fluctuations in the British Pound Sterling.

Nine Months Ended September 30, 2018 Compared to the Nine Months Ended September 30, 2017

Revenue

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Subscription	\$ 144,287	\$ 112,860	\$ 31,427	28%
Professional services	28,051	23,292	4,759	20
Total revenue	<u>\$ 172,338</u>	<u>\$ 136,152</u>	<u>\$ 36,186</u>	27

Subscription revenue increased for the nine months ended September 30, 2018 primarily due to the impact of new customer acquisitions, sales to existing customers, and to a lesser extent, inclusion of revenue from our acquisition and integration of Digital Fuel. Professional services revenue increased for the nine months ended September 30, 2018 primarily due to the impact of new customer acquisitions as well as the inclusion of revenue from our acquisition of Digital Fuel.

Cost of Revenue and Gross Margin

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Cost of revenue:				
Subscription	\$ 27,777	\$ 22,269	\$ 5,508	25%
Professional services	26,925	21,599	5,326	25
Total cost of revenue	\$ 54,702	\$ 43,868	\$ 10,834	25
Gross margin:				
Subscription	81%	80%		
Professional services	4	7		
Total gross margin	68	68		

The overall increase in cost of subscription revenue was primarily attributable to an increase in amortization of acquisition-related intangible assets of \$2.4 million due to our acquisition of Digital Fuel during the period, increased personnel-related costs of \$1.3 million driven by headcount growth, which resulted in increased employee compensation, stock-based compensation, benefits and travel costs, hosting costs increased \$0.9 million and increased consulting costs of \$0.7 million.

The overall increase in cost of professional services revenue was primarily attributable to an increase in personnel-related costs of \$3.1 million, driven by headcount growth related to the acquisition of Digital Fuel, and an increase in outside services of \$1.5 million.

Subscription gross margin increased because the subscription revenue growth rate outpaced the growth in subscription cost of revenue due to pricing efficiencies in hosting arrangements.

Professional services gross margin decreased in the nine months ended September 30, 2018 as compared to the same period in 2017, due to an increase in the use of partners to implement services.

Operating Expenses

Research and Development

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Research and development	\$ 36,204	\$ 30,060	\$ 6,144	20%
Percentage of total revenue	21%	22%		

Research and development expenses increased primarily due to increased personnel-related costs of \$4.4 million, consisting of increased employee compensation and benefits costs of \$3.4 million and additional stock-based compensation of \$1.0 million, driven by headcount growth. Average headcount in research and development increased 12% in the nine months ended September 30, 2018 compared to the same period in 2017 to support continued upgrades and enhancements to our platform and applications and to develop new technologies. In addition, contractor fees increased by \$1.0 million in the nine months ended September 30, 2018 as compared to the same period in 2017.

Sales and Marketing

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	* As Adjusted			
	(dollars in thousands)			
Sales and marketing	\$ 70,695	\$ 60,401	\$ 10,294	17%
Percentage of total revenue	41%	44%		

*See Note 1 in the condensed consolidated statements for a summary of adjustments

Sales and marketing expenses increased due to the expansion of our sales force, including personnel acquired from Digital Fuel. Average headcount in sales and marketing increased 8% in the nine months ended September 30, 2018 as compared to the same period in 2017, contributing to a \$9.9 million increase in personnel-related costs, consisting of \$4.0 million related to increased employee compensation, benefits, and increased travel costs associated with our direct sales force, an increase of \$4.0 million related to commissions, and additional stock-based compensation of \$1.9 million, for the nine months ended September 30, 2018.

General and Administrative

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
General and administrative	\$ 25,558	\$ 20,342	\$ 5,216	26%
Percentage of total revenue	15%	15%		

General and administrative expenses increased primarily due to one-time acquisition-related costs of \$2.1 million and an increase in personnel-related costs of \$2.9 million, consisting of increased employee compensation and benefits costs of \$1.2 million and stock-based compensation of \$1.7 million.

Other Income (Expense)

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	* As Adjusted			
	(dollars in thousands)			
Interest expense	\$ (4,021)	\$ (21)	\$ (4,000)	NM**
Interest income	2,375	859	1,516	176%
Other (expense) income, net	81	(27)	108	(400)
Foreign exchange (loss) gain	(797)	159	(956)	(601)

*See Note 1 in the condensed consolidated statements for a summary of adjustments

**Not meaningful

Interest expense increased by \$4.0 million during the nine months ended September 30, 2018 as a result of the issuance of the Notes in March 2018. The amortization of debt discount and transaction costs, as well as the coupon interest is recorded to interest expense. Interest income increased approximately \$1.5 million due to higher investment balances. The increase in foreign exchange loss was primarily due to fluctuations in foreign exchange rates.

Provision For Income Taxes

	Nine Months Ended September 30,		Change	
	2018	2017	Amount	%
	(dollars in thousands)			
Provision for income taxes	\$ (783)	\$ (614)	\$ (169)	28%

The increase in provision for income taxes was due to a change in the geographical mix of taxable earnings from our foreign operations, specifically related to foreign currency fluctuations in the British Pound Sterling.

Seasonality

We have historically experienced seasonality in terms of when we enter into agreements with customers. We typically enter into a significantly higher percentage of agreements with new customers, as well as renewal agreements with existing customers, in the fourth quarter and, to a lesser extent, the second quarter. The increase in customer agreements for the fourth quarter is attributable to large enterprise account buying patterns typical in the software industry. Fourth quarter professional services revenue is also typically positively impacted by recognition of TBM Council conference registration and sponsorship fees.

Sales and marketing expenses are typically higher in the fourth quarter due to commissions on the increase in customer agreements we typically see in that quarter and higher effective commission rates due to annual accelerators, as well as increased expenses associated with the TBM Council conference.

Furthermore, we usually enter into a significant portion of agreements with customers during the last month, and often the last two weeks, of each quarter. This seasonality is reflected to a much lesser extent, and sometimes is not immediately apparent, in revenue, due to the fact that we recognize subscription revenue over the term of the subscription agreement, which is generally one to three years. Although these seasonal factors are common in the technology industry, historical patterns should not be considered a reliable indicator of future sales activity or performance.

Liquidity and Capital Resources

As of September 30, 2018, we had \$258.0 million of cash, cash equivalents and investments. Historically, we funded our operations principally through sales of equity securities, sales of subscriptions and professional services, or the incurrence of debt. In March 2018, we issued and sold \$143.8 million aggregate principal amount of 0.875% convertible senior notes, or the Notes, in a private placement exempt from the registration requirements of the Securities Act of 1933. The Notes mature on April 1, 2023, unless earlier repurchased by us or converted by the holder pursuant to the terms of the Notes. Interest is payable semiannually in arrears on April 1 and October 1 of each year, commencing on October 1, 2018. We received net proceeds from the sale of the Notes of approximately \$139.4 million, net of initial purchase discounts and debt issuance costs. We used a portion of the net proceeds of the offering of the Notes to pay the cost of the Capped Call transactions described above and plan to use the remainder for general corporate purposes, which may include working capital, capital expenditures, potential acquisitions and strategic transactions.

In 2018, our principal uses of cash are funding operations and other working capital requirements, as well as the acquisition of Digital Fuel. Over the past several years, revenue has increased significantly from year to year and, as a result, cash flows from customer collections have increased. However, operating expenses have also increased as we have invested in growing our business. Our operating cash requirements may increase in the future as we continue to invest in the strategic growth of our company.

We believe that existing cash and investments, as well as any positive cash flows from operations will be sufficient to support working capital and capital expenditure requirements for at least the next 12 months.

From time to time, we may explore additional financing sources and means to lower our cost of capital, which could include equity, equity-linked and debt financing. We cannot assure you that any additional financing will be available to us on acceptable terms, or at all.

Cash Flows

The following table shows cash flows for the nine months ended September 30, 2018 and 2017 (in thousands):

	Nine Months Ended September 30,	
	2018	2017
Cash provided by operating activities	\$ 7,839	\$ 10,903
Cash used in investing activities	(27,023)	(33,970)
Cash provided by financing activities	142,280	10,924

Operating Activities

Net cash provided by operating activities consists primarily of net loss adjusted for certain non-cash items, including amortization of deferred costs, stock-based compensation, depreciation and amortization, foreign currency gains and losses, and other non-cash charges, as well as changes in working capital sources and uses of cash.

Net cash provided by operating activities during the nine months ended September 30, 2018 reflected our net loss of \$18.0 million, offset by non-cash expenses that included \$16.7 million of stock-based compensation, \$12.2 million of amortization of deferred costs, \$3.4 million of amortization of debt discount and issuance costs, as a result of the issuance of the Notes in March 2018, \$2.4 million of amortization of acquisition-related intangible assets related to the acquisition of Digital Fuel, and \$4.0 million of depreciation and amortization. Working capital source of cash included a decrease of \$8.0 million in accounts receivable, due to collections on billings from the fourth quarter in 2017 and a \$2.9 million net increase in accounts payable, accrued expenses and deferred rent. This source of cash was offset by a \$9.9 million decrease in deferred revenue, an increase of \$13.6 million in deferred costs and an increase of \$0.6 million in prepaid expenses and other current assets.

Net cash provided by operating activities during the nine months ended September 30, 2017 reflected our net loss of \$18.2 million, offset by non-cash expenses that included \$11.7 million of stock-based compensation, \$10.1 million of amortization of deferred costs, and \$4.7 million of depreciation and amortization. Working capital sources of cash included a decrease of \$12.0 million in accounts receivable, primarily due to collections on transactions originating in the fourth quarter of 2016 and a \$3.3 million decrease in prepaid expenses and other current assets and a \$0.1 million increase in deferred revenue. These sources of cash were offset by an increase of \$10.6 million in deferred costs and a \$2.0 million net decrease in accounts payable, accrued expenses and deferred rent.

Investing Activities

Our investing activities consist primarily of business combinations, and purchases, sales and maturities of available-for-sale securities, property and equipment purchases for computer-related equipment and software, leasehold improvements to leased office facilities and capitalization of software development costs. Capitalized software development costs are related to new applications or improvements to our existing software platform that expands the functionality for customers, or new or expanded functionality for internal use software.

Net cash used in investing activities during the nine months ended September 30, 2018 consisted primarily of \$39.0 million for the acquisition of Digital Fuel, \$116.0 million of cash maturities from available-for-sale securities, and \$2.2 million of purchased property and equipment and capitalized software development costs, offset by \$101.8 million in purchases of available-for-sale securities.

Net cash used in investing activities during the nine months ended September 30, 2017 consisted primarily of \$66.2 million in purchases of available-for-sale securities, and \$2.8 million of purchased property and equipment and capitalized software development costs, offset by \$35.1 million of cash maturities from available-for-sale securities.

Financing Activities

Sources of funds for financing activities consist primarily of proceeds from debt borrowings, the exercise of stock options, and proceeds from purchases of Class A common stock under our employee stock purchase plan. Uses of funds for financing activities include payment of loan and IPO related fees, the purchase of the Capped Calls in 2018, and repayment of capital leases.

Net cash provided by financing activities for the nine months ended September 30, 2018 consisted primarily of \$139.4 million in proceeds from the issuance of the Notes, net of issuance costs, \$18.0 million received from option exercises, and \$2.4 million received from proceeds from the purchase of Class A common stock under the employee stock purchase plan, offset by the purchase of Capped Calls for \$17.1 million in the aggregate and payment of debt issuance costs of \$0.5 million.

Net cash provided by financing activities for the nine months ended September 30, 2017 consisted primarily of \$8.9 million from proceeds received from option exercises and \$2.3 million from proceeds from the purchase of Class A common stock under the employee stock purchase plan, offset by the payment of IPO costs of \$0.2 million.

Contractual Obligations and Commitments

As of September 30, 2018, our principal obligations consisted of non-cancellable operating leases that expire at various dates through 2025. In May 2018, we amended our office lease in North Carolina by adding an additional 4,000 square feet and extending the lease term through November 2025.

	Payments Due by Period:				
	Total	Less than 1 Year	1 - 3 Years	3 -5 Years	More than five Years
	(in thousands)				
Capital leases (1)	\$ 141	\$ 33	\$ 108	\$ —	\$ —
Operating leases	20,089	4,738	8,076	5,981	1,294
	<u>\$ 20,230</u>	<u>\$ 4,771</u>	<u>\$ 8,184</u>	<u>\$ 5,981</u>	<u>\$ 1,294</u>

(1) Includes interest totaling \$13,000.

Other commitments include certain other non-cancellable agreements for software and marketing services that specify all significant terms, including fixed or minimum services to be used, pricing provisions and the approximate timing of the transaction. There have been no material changes for commitments compared to those discussed in Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Form 10-K.

Off-Balance Sheet Arrangements

During the three and nine months ended September 30, 2018, 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.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and related disclosure of contingent assets and liabilities, revenue and expenses at the date of the financial statements. Generally, we base our estimates on historical experience and on various other assumptions in accordance with GAAP that we believe to be reasonable under the circumstances. Actual results may differ from these estimates.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Our critical accounting policies and estimates include those related to:

- revenue recognition;
- stock-based compensation;
- income taxes;
- capitalized internal use software; and
- deferred costs.

There have been no material changes to our critical accounting policies and estimates as previously disclosed in our Form 10-K, except those noted in Note 1 of the notes to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Emerging Growth Company Status

As an "emerging growth company," or EGC, the Jump-start Our Business Start-ups Act, or JOBS Act, allows us the option to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. We have elected to use this extended transition period under the JOBS Act. As a result, our financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors.

As of December 31, 2018, we will no longer qualify as an “emerging growth company” as defined in the JOBS Act because we will qualify as a “large accelerated filer,” with at least \$700 million of equity securities held by non-affiliates.

Recently Adopted and Issued Accounting Pronouncements

See Note 1 of the notes to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for a summary of recently adopted and issued accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

Foreign Currency Exchange Risk

Due to our international operations, we have foreign currency risks related to revenue and operating expenses denominated in currencies other than the U.S. dollar, primarily the British Pound Sterling, Euro and Australian dollar. Our sales contracts are primarily denominated in the local currency of the customer making the purchase. In addition, a portion of operating expenses are incurred outside the United States and are denominated in foreign currencies. Additionally, subscription fees are largely based on customers’ anticipated spend as expressed in U.S. dollars as managed by our system, which fee construct may increase the exposure of revenue to currency fluctuations. Decreases in the relative value of the U.S. dollar to other currencies may negatively affect revenue and other operating results as expressed in U.S. dollars. We do not believe that an immediate 10% increase or decrease in the relative value of the U.S. dollar to other currencies would have a material effect on operating results.

We have experienced and will continue to experience fluctuations in net loss as a result of transaction gains or losses related to remeasuring certain current asset and current liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. We have not engaged in the hedging of foreign currency transactions to date. We are evaluating the costs and benefits of initiating such a program and may in the future hedge selected significant transactions denominated in currencies other than the U.S. dollar as we expand international operations.

Interest Rate Sensitivity

We hold cash and cash equivalents for working capital purposes. We do not have material exposure to market risk with respect to investments, as any investments we enter into are primarily highly liquid investments.

In March 2018, we issued \$143.8 million aggregate principal amount of 0.875% convertible senior notes due 2023. The Notes have fixed annual interest rates at 0.875% and, therefore, we do not have economic interest rate exposure on the Notes. However, the values of the Notes are exposed to interest rate risk. Generally, the fair value of our fixed interest rate Notes will increase as interest rates fall and decrease as interest rates rise. In addition, the fair values of the Notes are affected by our stock price. The fair value of the Notes will generally increase as our Class A common stock price increases and will generally decrease as our Class A common stock price declines in value. Additionally, we carry the Notes at face value less unamortized discount on our balance sheet, and we present the fair value for required disclosure purposes only.

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, or 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, our disclosure controls and procedures were not effective as of September 30, 2018 due to a material weakness in our internal control over financial reporting as described below.

Material Weakness

Prior to the public disclosure of our 2018 first quarter results, a correction to our statement of cash flows for the presentation of an accrued, but unpaid, working capital adjustment related to the Digital Fuel acquisition was identified. Although we correctly accounted for such working capital adjustment in our public disclosures, we determined that there was a material weakness in our internal control over financial reporting as of March 31, 2018 as this control deficiency could result in a misstatement of the aforementioned disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that

would not be prevented or detected. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. We believe this issue resulted from insufficient internal resources to manage several complex and non-recurring transactions that occurred in the first quarter of 2018, and became apparent as a result of such transactions.

Notwithstanding the identified material weakness, management believes the consolidated financial statements included in this report fairly represent in all material respects our financial condition, results of operations and cash flows at and for the periods presented in accordance with GAAP.

Remediation Efforts

Our management, with oversight from our audit committee, has begun to implement remediation actions, including hiring of additional accounting and financial reporting personnel, ensuring that we maintain appropriate staffing levels to handle significant transactions to address the material weakness and to improve our internal control over financial reporting.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that 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 Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect 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. 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, within the Company have been detected. The design of any system of controls also is 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 the 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.

As of the date of this quarterly report, we are not a party to any material legal proceedings. In the normal course of business, we may be named as a party to various legal claims, actions and complaints. We cannot predict whether any resulting liability would have a material adverse effect on our financial position, results of operations or cash flows.

Item 1A. Risk Factors.

Risks Related to Our Business and Industry

We have a history of losses and we expect our revenue growth rate to decline. As our costs increase, we may not be able to generate sufficient revenue to achieve or maintain profitability in the future.

We incurred net losses of \$4.6 million and \$4.1 million in the three months ended September 30, 2018 and 2017, respectively and \$18.0 million and \$18.2 million in the nine months ended September 30, 2018 and 2017, respectively. We had an accumulated deficit of \$214.8 million at September 30, 2018. We expect that our revenue growth rate will decline over time. We may not be able to generate sufficient revenue to achieve or sustain profitability. We expect to continue to incur losses for the foreseeable future and we expect our costs to increase in future periods as we expend substantial financial and other resources on, among other things:

- sales and marketing, including a continued expansion of our direct sales organization, which will require time before these investments generate sales results;
- hiring of additional employees for our research and development team to support growth, our technology and datacenter infrastructure, enhancements to our cloud architecture, improved disaster recovery protection, increasing security, compliance and operations expenses, and expenses related to required certifications and third-party attestations;
- other software development, including enhancements and modifications related to our business applications, including investments in our software development team;
- international expansion in an effort to increase our customer base and sales;
- continued growth of the customer success team; and
- general and administration, including significantly increasing expenses in accounting and legal related to the increase in the sophistication and resources required for public company compliance and other work arising from the growth and maturity of the company.

These expenditures may not result in additional revenue or the growth of our business. If we fail to continue to grow revenue or to achieve or sustain profitability, the market price of our Class A common stock could decline.

Our prospects and future operating results are difficult to predict.

Our ability to plan and model future operating results is subject to uncertainty. Our revenue grew 26% and 16% in the three months ended September 30, 2018 and 2017, respectively, and 27% and 17% in the nine months ended September 30, 2018 and 2017, respectively, compared to the same period in the prior year; however, our historical revenue growth is not necessarily indicative of our future performance. Our revenue growth is expected to decline in future periods due to a number of reasons, which may include the maturation of our business, increase in overall revenue over time, a decrease in the professional services needed to deploy our applications, slowing demand for our applications, increasing competition, a decrease in the growth of the markets in which we compete, or if we fail, for any reason, to continue to capitalize on growth opportunities, a decrease in our renewal rates, or a decline in available opportunities as a result of our increased market penetration in one or more of our markets.

We have encountered and will continue to encounter risks and uncertainties frequently experienced by growing companies in rapidly changing industries, such as determining appropriate investments of our limited resources, market adoption of our current and future applications, competition from other companies, acquiring and retaining customers, hiring, integrating, training and retaining skilled personnel, developing new applications, determining prices and contract terms for our applications, and unforeseen expenses and challenges in forecasting accuracy. If our assumptions regarding these risks and uncertainties, which we use to plan our business, are incorrect or change, or if we do not address these risks successfully, our prospects, operating results and business could be harmed.

If the TBM market fails to develop, or we are unable to maintain our leadership within that market category, our business, results of operations, financial condition and growth prospects could be harmed.

Our business model depends upon the development and adoption of the market for TBM solutions and our leadership within that market category. We derive and expect to continue to derive for some period of time the majority of revenue and cash flows from our core TBM solutions. The TBM market is relatively new and is evolving rapidly, and overall market acceptance of the importance of TBM and our solutions is critical to our continued success. If the market for TBM solutions does not continue to grow, or grows more slowly than we expect, or if the market for TBM solutions does not develop as we anticipate, our operating results would be harmed. In addition, successful market adoption will depend in part on our ability to correctly anticipate, identify and build the key features, functions, reports, metric selection, and packaging that is most useful and attractive to the market, all while maintaining sufficient flexibility with the platform as needed to accommodate customer-specific needs.

We derive, and expect to continue to derive, substantially all of our revenue and operating cash flows from TBM solutions and related professional services. If we fail to adapt our solutions to changing market dynamics and customer preferences or to achieve increased market acceptance of our TBM solutions, our business, results of operations, financial condition, and growth prospects would be harmed.

We derive, and expect to continue to derive, substantially all of our revenue and cash flows from TBM solutions and related professional services. As such, the market acceptance of TBM solutions is critical to our success. Demand for our TBM solutions is affected by a number of factors, many of which are beyond our control, such as continued market acceptance of our solutions by customers for existing and new use cases, the timing of development and release of new applications, features, and functionality introduced by our competitors, technological change, and growth or contraction in our addressable market. Although we may expand our efforts in the marketplace beyond the TBM category, there can be no certainty that any such expansion will generate returns capable of offsetting the costs associated with any such expansion. You should consider our business and prospects based on our current solutions within the TBM category and, in light of the various challenges we and TBM as a category face, including those discussed in this “Risk Factors” section.

Our business model heavily depends on the acquisition of new customers, adoption by current customers of our solutions, renewals of their subscriptions and the purchase of additional subscriptions from us.

In order to maintain or improve our operating results, we depend on the acquisition of new customers, the adoption of additional applications by existing customers and the decision by existing and new customers to renew their subscriptions upon the expiration of their current contract term. Our contracts typically vary in length between one and three years and our customers have no obligation to renew their subscriptions after the expiration of their initial subscription periods. Our customers may elect not to renew, may seek to renew for lower subscription amounts or for shorter contract lengths, and may choose to renew for the same or fewer applications over time. Our renewal rates may decline or fluctuate as a result of a number of factors, including leadership changes within our customers resulting in loss of sponsorship, limited customer resources, pricing changes by us or our competitors, adoption and utilization of our solutions by our customers, customer satisfaction with our applications, the acquisition of our customers by other companies, procurement or budgetary decisions from legislative or other regulatory bodies, and deteriorating general economic conditions. To the extent our customer base continues to grow, renewals and the subscriptions to additional applications by renewing customers will become an increasingly important part of our results. If our customers do not renew their subscriptions for our applications, or decrease the amount they spend with us, revenue will decline and our business will be harmed.

Because our recent growth has resulted in the rapid expansion of our business, we do not have a long history upon which to base forecasts of customer renewal rates, customer upgrade rates or future revenue. As a result, our future operating results may be significantly below the expectations of investors, which could harm the market price of our Class A common stock.

If we fail to effectively develop and expand our sales and marketing capabilities, our ability to increase our customer base and increase acceptance of our TBM solutions could be harmed.

To increase the number of customers and increase the market acceptance of our solutions, we will need to expand our sales and marketing operations, including our domestic and international sales force. We will continue to dedicate significant resources to sales and marketing programs. We believe that there is significant competition for direct sales personnel with the sales skills and technical knowledge that we require. Our ability to achieve significant revenue growth in the future will depend, in large part, on our success in recruiting, training and retaining a sufficient number of direct sales personnel. New hires require significant training and time before they achieve full productivity, particularly in new sales territories. Our recent hires and planned hires may not become as productive as quickly as we would like, and we may be unable to hire or retain sufficient numbers of qualified individuals in the future in the markets where we do business. The effectiveness of our sales and marketing has also varied over time and, together with the effectiveness of any partners or resellers we may engage, may vary in the future. Our business will be harmed if our efforts do not

generate a correspondingly significant increase in revenue. We may not achieve anticipated revenue growth from expanding our sales force if we are unable to hire, develop and retain talented sales personnel, if our new sales personnel are unable to achieve desired productivity levels in a reasonable period of time, or if our sales and marketing programs are not effective.

We may experience quarterly fluctuations in our operating results due to a number of factors, which makes our future results difficult to predict and could cause our operating results to fall below expectations.

Our quarterly operating results have fluctuated in the past and we expect them to fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, our past results may not be indicative of our future performance, and comparing our operating results on a period-to-period basis may not be meaningful. In addition to the other risks described in this report, factors that may affect our quarterly operating results include:

- changes in spending on TBM solutions by our current or prospective customers;
- pricing our applications effectively so that we are able to attract and retain customers without compromising our operating results;
- attracting new customers and increasing existing customers' use of our solutions;
- unexpected sales and transaction execution delays;
- customer renewal rates and the amounts for which agreements are renewed;
- awareness of our brand;
- changes in the competitive dynamics of our market, including consolidation among competitors or customers and the introduction of new applications or capabilities;
- changes to the commission plans, quotas and other compensation-related metrics for our sales representatives;
- the amount and timing of payment for operating expenses, particularly research and development, sales and marketing expenses and employee benefit expenses;
- our ability to manage our existing business and future growth, including increases in the number of customers for our solutions and the introduction and adoption of our solutions in the United States and globally;
- unforeseen costs and expenses related to the expansion of our business, operations and infrastructure, including disruptions in our hosting network infrastructure and privacy and data security;
- the level of international sales and the pricing of sales;
- foreign currency exchange rate fluctuations; and
- general economic and political conditions in our domestic and international markets.

We may not be able to accurately forecast the amount and mix of future subscriptions, size or duration of contracts, revenue and expenses and, as a result, our operating results may fall below our estimates or the expectations of public market analysts and investors. If our revenue or operating results fall below the expectations of investors, or below any estimates we may provide, the market price of our Class A common stock could decline.

We target sales efforts at enterprise customers and the length, cost and uncertainty associated with sales cycles may result in fluctuations in our operating results and our failure to achieve the expectations of investors.

We target sales efforts at enterprises and face long sales cycles, complex customer requirements, substantial upfront sales costs, and a relatively low and difficult to predict volume of sales on a quarter-by-quarter basis. This makes it difficult to predict with certainty our sales and related operating performance in any given period. Our typical sales cycle is approximately six months, but is variable and difficult to predict and can be longer. Customers often undertake a prolonged evaluation of our solutions, including assessing their own readiness, scoping the professional services involved, and comparing our solutions to products offered by our competitors and their ability to solve the problem internally. Moreover, our customers often begin to deploy our solutions on a limited basis, but nevertheless demand extensive configuration, integration services and pricing concessions, which increase our upfront investment in the sales effort with no guarantee that these customers will deploy our solutions widely enough across their organization to justify our substantial upfront investment. Adherence to our financial plan in part depends on a predictable growth rate in the acquisition of new customers that represent high annual contract value, while additional growth and enhanced predictability in part depends on an increased volume of new customers with a relatively lower annual contract value. Our financial performance and the predictability of our quarterly financial results may be harmed by intermittent failures to secure the higher value enterprise

agreements, or increase the volume of transactions overall, according to our forecasts, and depends in large part on the successful execution of our direct sales team. In addition, because of the relatively small and tightly knit nature of the community of IT leaders within the enterprises that we sell into, our business is vulnerable to negative feedback or opinions even if held by a few influential leaders within this community.

Additionally, our quarterly sales cycles are generally more heavily weighted toward the end of the quarter with an increased volume of sales in the last few weeks of the quarter. This could negatively impact the timing of recognized revenue and billings, cash collections and delivery of professional services in subsequent periods. Furthermore, the concentration of contract negotiations in the last few weeks of the quarter could require us to expend more in the form of compensation for additional sales, legal and finance employees and contractors. Compression of sales activity to the end of the quarter also greatly increases the likelihood that sales cycles will extend beyond the quarter in which they are forecasted to close for some sizeable transactions, which will harm forecasting accuracy and adversely impact billings and new customer acquisition metrics for the quarter in which they are forecasted to close.

Because we recognize revenue from subscriptions ratably over the term of the agreement, near-term changes in sales may not be reflected immediately in our operating results.

We offer our applications primarily through multi-year subscription agreements, which typically vary in length between one and three years. All subscription fees that are billed in advance of service are recorded in deferred revenue. Subscription revenue is recognized ratably over the subscription term. As a result, most of the revenue that we report in each period is derived from the recognition of deferred revenue relating to subscriptions entered into during previous periods. A decline in new or renewed subscriptions in any one quarter is not likely to have a material impact on results for that quarter. However, declines would negatively affect revenue and deferred revenue balances in future periods, and the effect of significant downturns in sales and market acceptance of our applications, and potential 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 total revenue through additional sales in any period, as revenue from new customers is recognized over the applicable subscription term.

If we fail to attract and retain additional qualified personnel we may be unable to execute our business strategy.

To execute our business strategy, we must attract and retain highly qualified personnel. In particular, we compete with many other companies for software developers with high levels of experience in designing, developing and managing cloud-based software, as well as for skilled product development, marketing, sales and operations professionals, and we may not be successful in attracting and retaining the professionals we need, in particular in the Seattle, Washington area where we are headquartered. We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications which may, among other things, impede our ability to execute our software development and sales strategies. Many of the companies with which we compete for experienced personnel are more well-known and have greater resources than we do. In addition, in making employment decisions, particularly in the software industry, job candidates often consider the value of the stock options or other equity incentives they are to receive in connection with their employment. If the price of our stock declines, or experiences significant volatility, our ability to attract or retain qualified employees will be adversely affected. If we fail to attract new personnel or fail to retain and motivate our current personnel, our growth prospects could be harmed.

The market in which we participate is increasingly competitive, and if we do not compete effectively, our operating results could be harmed.

The market for TBM solutions is relatively new and rapidly evolving. In many cases, our primary competition is the use of legacy spreadsheet-based business processes, or occasionally we encounter either custom software developed, or general purpose business intelligence solutions repurposed, by in-house IT and finance departments of our potential customers to meet specific business needs. As we look to sell our solutions to potential customers with existing internal solutions, we must convince internal stakeholders that our TBM solutions are superior to the legacy solutions that the organization has previously adopted. If we are unable to effectively convince internal stakeholders at our prospective customers to abandon their legacy solutions, our business, results of operations, financial condition and cash flows could be materially and adversely affected.

Larger companies, such as ServiceNow, provide a suite of products and services that includes TBM capabilities. These competitors have greater name recognition, much longer operating histories, more and better-established customer relationships, larger sales forces, larger marketing and software development budgets and significantly greater resources than we do. These large vendors commonly have an enterprise-wide license agreement in place with the Fortune 2000 enterprise company customer base and are able to leverage that license to easily transact for their services. In some cases, these large vendors may be willing to provide their competing software for free as part of enterprise-wide agreements that include other products or services, which has resulted in pricing pressures and lost sales. Further, such large vendors frequently benefit from existing system integrator and other go-to-market relationships that facilitate their sales and marketing efforts, and that can be easily redirected to competition with us in the TBM

market. In addition, certain of our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards, or customer requirements, or simply accelerate product development and improvements at greater velocity.

Several specialized companies target the TBM market through solutions that are tailored to a specific TBM use case or industry. Some of our principal competitors in these situations offer their products or services at a lower price, which has resulted in pricing pressures and lost sales. Potential customers with discrete and immediate needs that may be addressed by these niche solutions may choose to deploy these solutions instead of an offering from our integrated suite of TBM solutions. If we fail to compete effectively against these more specific, niche providers of TBM solutions, our business will be harmed.

We expect competition to intensify in the future. We expect that the large software vendors who currently do not have an offering in the TBM category, some of which operate in adjacent product categories today, may in the future bring such a solution to market through product development, acquisitions or other means. Such vendors would potentially benefit from the same advantages described above regarding our existing larger competitors, but perhaps on an even greater scale. Also, a simpler solution could gain traction in the market and acceptance by medium sized businesses, which may result in downward pressure on our pricing and potentially a decrease in market share and market opportunity for us.

If we fail to adapt and respond effectively to rapidly changing technology, evolving industry standards and changing customer needs or requirements, our solutions may become less competitive.

Our success depends on our ability to adapt and enhance our solutions. To attract new customers and increase revenue from existing customers, we need to continue to enhance and improve our solutions, capabilities and enhancements to meet customer needs at prices that our customers are willing to pay. Such efforts will require adding new functionality and responding to technological advancements, which will increase our research and development costs. If we are unable to develop solutions that address customers' needs, or enhance and improve our offerings in a timely manner, we may not be able to maintain or increase market acceptance of our solutions. Further, many of our existing and potential future competitors expend a considerably greater amount of funds on their research and development programs, and those that do not may be acquired by larger companies that would allocate greater resources to competitors' research and development programs. If we fail to maintain adequate research and development resources or compete effectively with the research and development programs of our competitors our business could be harmed. Our ability to grow is also subject to the risk of future disruptive technologies. If new technologies emerge that are able to deliver TBM solutions at lower prices, more efficiently, more conveniently or more securely, such technologies could adversely affect our ability to compete.

We may not receive significant revenue from our current development efforts for several years, if at all.

Developing software applications is expensive and the investment in product development often involves a long return on investment cycle. We have made and expect to continue to make significant investments in development and related product opportunities. Accelerated product introductions and short product life cycles require high levels of expenditures that could adversely affect our operating results if not offset by revenue increases. We believe that we must continue to dedicate a significant amount of resources to our development efforts to maintain our competitive position. However, we may not receive significant revenue from these investments for several years, if at all.

Our planned further expansion of our business outside the United States exposes us to risks associated with international operations.

Our growth strategy involves the further expansion of our operations and customers located outside of the United States. For the three and nine months ended September 30, 2018, 30% and 31%, respectively, of our revenue was derived from customers located outside North America, primarily from customers in Europe, compared to 29% and 28% for the three and nine months ended September 30, 2017, respectively. A key element of our growth strategy is to expand our international operations and develop a worldwide customer base. While we have initiated efforts to expand our business into Asia-Pacific through a limited presence in Australia and Singapore, our investment may never be recouped. Our current international operations and future initiatives will involve a variety of risks, including:

- the need to make significant investments in people, solutions and infrastructure, typically well in advance of revenue generation;
- the need to localize and adapt our application for specific countries, including translation into foreign languages and associated expenses;
- potential changes in public or customer sentiment regarding cloud-based services or the ability of non-local enterprises to provide adequate data protection, particularly in the European Union;

- technical or latency issues in delivering our applications;
- dependence on certain third parties, including resellers with whom we do not have extensive experience;
- the lack of reference customers and other marketing assets in regional markets that are new or developing for us, as well as other adaptations in our market generation efforts that we may be slow to identify and implement;
- unexpected changes in regulatory requirements, taxes or trade laws;
- differing labor regulations, especially in the European Union, where labor laws are generally more advantageous to employees as compared to the United States, including deemed hourly wage and overtime regulations in these locations;
- challenges inherent in efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits and compliance programs;
- difficulties in maintaining our company culture with a dispersed and distant workforce;
- difficulties in managing a business in new markets with diverse cultures, languages, customs, legal systems, alternative dispute systems and regulatory systems;
- currency exchange rate fluctuations and the resulting effect on our revenue and expenses, and the cost and risk of entering into hedging transactions if we choose to do so in the future;
- limitations on our ability to reinvest earnings from operations in one country to fund the capital needs of our operations in other countries;
- limited or insufficient intellectual property protection;
- political instability or terrorist activities;
- requirements to comply with foreign privacy and information security laws and regulations and the risks and costs of non-compliance;
- likelihood of potential or actual violations of domestic and international anticorruption laws, such as the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, or of U.S. and international export control and sanctions regulations, which likelihood may increase with an increase of sales or operations in foreign jurisdictions and operations in certain industries;
- requirements to comply with U.S. export control and economic sanctions laws and regulations and other restrictions on international trade;
- likelihood that the United States and other governments and their agencies impose sanctions and embargoes on certain countries, their governments and designated parties, which may prohibit the export of certain technology, products, and services to such persons; and
- adverse tax burdens and foreign exchange controls that could make it difficult to repatriate earnings and cash should we desire to do so.

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 operating results will be harmed.

Increased sales to customers outside the United States and/or paid for in currency other than the U.S. dollar exposes us to potential currency exchange losses.

As our international sales and operations increase, so too will the number and significance of transactions, including intercompany transactions, occurring in currencies other than the U.S. dollar. In addition, our international subsidiaries may accumulate assets and liabilities that are denominated in currencies other than the U.S. dollar, which is the functional reporting currency of these entities. Accordingly, changes in the value of foreign currencies relative to the U.S. dollar can affect our revenue and operating results due to transactional and translational remeasurement that is reflected in our earnings. We do not currently maintain a program to hedge transactional exposures in foreign currencies. 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. Additionally, our license fees are largely based on

our customers' anticipated spend managed by our solutions expressed in U.S. dollars, which fee construct may increase the exposure of our revenue to currency fluctuations.

If we fail to manage our rapid growth effectively, or our business does not grow as we expect, our operating results may suffer.

Our employee base and operations have grown in a relatively short period of time. Our full-time employee base grew from 745 employees as of September 30, 2017 to 846 employees as of September 30, 2018. Our growth has placed, and will continue to place, a significant strain on our operational, financial and management infrastructure. We anticipate further increases in headcount will be required to support increases in our application offerings and continued expansion. To manage this growth effectively, we must continue to improve operational, financial and management systems and controls by, among other things:

- effectively attracting, training and integrating a large number of new employees, particularly technical personnel and members of our management and sales teams;
- further improving key business systems, processes and IT infrastructure to support our business needs;
- enhancing information and communication systems to ensure that employees are well-coordinated and can effectively communicate with each other and customers; and
- improving internal control over financial reporting and disclosure controls and procedures to ensure timely and accurate reporting of operational and financial results.

If we fail to effectively manage expansion or implement new systems, or if we fail to implement improvements or maintain effective internal controls and procedures, costs and expenses may increase more than expected and we may not expand our customer base, increase renewal rates, enhance existing applications, develop new applications, satisfy customers, respond to competitive pressures, or otherwise execute our business plan. If we are unable to effectively manage our growth, our operating results will be harmed.

Our growth strategy depends in part on the success of our strategic relationships with third parties and their continued performance and alignment.

To continue our growth we will need to continue to develop various third-party relationships. In particular, our growth strategy depends on continuing to develop successful go-to-market partnerships with key technology, system integrator and consultant partners both domestically and internationally to help validate our solutions and provide introductions to certain potential customers, and in some cases to resell our solutions, or provide professional services related to them. Failure to successfully develop and implement strategic third-party relationships with resellers, technology providers and service providers could significantly harm our operating results. For example, results may suffer if efforts towards developing our go-to-market relationships consume resources and incur costs, but do not result in a commensurate increase in revenue for us. We also may enter into relationships with other businesses to expand our solutions or our ability to provide our solutions in international locations, which could involve preferred or exclusive licenses, additional channels of distribution, discount pricing or investments in other companies. The cost of developing and maintaining such relationships may go unrecovered or unrewarded.

If we fail to offer high-quality professional services and support, our business and reputation may suffer. If we fail to reduce the cost of those services, our operating results may be harmed.

High-quality professional services and support, including training, implementation and consulting services, are important for the successful marketing, sale and use of our solutions and for the renewal of subscriptions by existing customers. The importance of high-quality professional services and support will increase as we expand our business and pursue new customers. If we do not provide effective ongoing support, our ability to retain and sell additional functionality and applications to existing customers may suffer, and our reputation with existing or potential customers may be harmed.

At the same time, these services are provided at relatively high cost to us with resulting fees to the customer. These factors may negatively impact the future revenue growth for our solutions or lengthen the sales cycle, either of which would be detrimental to our business. We continue to pursue strategies to reduce the amount of professional services required for a customer to begin to use and gain value from our solutions, lower the overall costs of professional service fees to our customers, and improve the gross margin of our professional services business. If we are unable to successfully accomplish these objectives, our operating results, including our profit margins, may be harmed.

We rely on our management team and other key employees, and the loss of one or more key employees could harm our business.

Our success and future growth depend upon the continued services of our management team, including Sunny Gupta, one of our founders and our chief executive officer, and other key employees in the areas of engineering, marketing, sales, services and general and administrative functions. From time to time, there may be changes in our management team resulting from the hiring or departure of executives, which could disrupt our business. We also are dependent on the continued service of our existing software engineers and information technology personnel because of the complexity of our software, technologies and infrastructure. We may terminate any employee's employment at any time, with or without cause, and any employee may resign at any time, with or without cause. We do not maintain any "key man" insurance for any employee. The loss of one or more of our management team members or key employees could harm our business.

If our network or computer systems are breached or unauthorized access to customer data is otherwise obtained, our applications may be perceived as insecure and we may lose existing customers or fail to attract new customers, our reputation may be damaged and we may incur significant liabilities.

Our operations involve the storage and transmission of our customers' sensitive and proprietary information. Cyber-attacks and other malicious internet-based activity, such as computer malware, viruses, and hacking and phishing attacks by third parties, continue to increase generally, and cloud-based platform providers of software and services have been targeted. If any unauthorized access to or security breaches of our platform, or those of our service providers, occurs, or is believed to have occurred, such an event or perceived event could result in the loss of data, loss of intellectual property, loss of business, severe reputational or brand damage adversely affecting customer or investor confidence, regulatory investigations and orders, litigation, indemnity obligations, damages for contract breach, penalties for violation of applicable laws, regulations, or contractual obligations, and significant costs for remediation that may include liability for stolen assets or information and repair of system damage that may have been caused, incentives offered to customers or other business partners in an effort to maintain business relationships after a breach, and other liabilities. Additionally, any such event or perceived event could impact our reputation, harm customer confidence, hurt our sales and expansion into existing and new markets, or cause us to lose existing customers. We could be required to expend significant capital and other resources to alleviate problems caused by such actual or perceived breaches and to remediate our systems, we could be exposed to a risk of loss, litigation or regulatory action and possible liability, and our ability to operate our business may be impaired. Additionally, actual, potential or anticipated attacks may cause us to incur increasing costs, including costs to deploy additional personnel and protection technologies, train employees and engage third-party experts and consultants.

In addition, if the security measures of our customers are compromised, even without any actual compromise of our own systems, we may face negative publicity or reputational harm if customers or anyone else incorrectly attributes the blame for such security breaches to us or our systems. If customers believe that our applications do not provide adequate security for the storage of personal or other sensitive information or its transmission over the internet, our business will be harmed. Customers' concerns about security or privacy may deter them from using our platform for activities that involve personal or other sensitive information.

Our errors and omissions insurance covering certain security and privacy damages and claim expenses may not be sufficient to compensate for all liability. Although we maintain insurance for liabilities incurred as a result of some security and privacy damages, we cannot be certain that our coverage will be adequate for liabilities actually incurred or that insurance will continue to be available to us on economically reasonable terms, or at all. Because the techniques used and vulnerabilities exploited to obtain unauthorized access or to sabotage systems change frequently and generally are not identified until they are launched against a target, we may be unable to anticipate these techniques or vulnerabilities or implement adequate preventative measures. We may also experience security breaches that may remain undetected for an extended period.

Because data security is a critical competitive factor in our industry, we make public statements in our privacy policies, on our website, and elsewhere describing the security of our platform. Should any of these statements be untrue, become untrue, or be perceived to be untrue, even if through circumstances beyond our reasonable control, we may face claims, including claims of unfair or deceptive trade practices, brought by the U.S. Federal Trade Commission, state, local, or foreign regulators, and private litigants.

Interruptions or performance problems associated with our technology and infrastructure may adversely affect our business and operating results.

Our continued growth depends in part on the ability of our existing and potential customers to access our applications at any time. We have experienced, and may in the future experience, disruptions, outages, and other performance problems due to a variety of factors, including infrastructure changes, introductions of new capabilities, human or technology errors, distributed 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 within an acceptable period of time. It may become increasingly difficult to maintain and improve our performance,

especially during peak usage times and as our platform becomes more complex and our user traffic increases. If our applications are unavailable or if our users are unable to access our applications within a reasonable amount of time, or at all, our business will be harmed.

Moreover, our customer agreements often include performance guarantees and service level standards that may obligate us to provide credits or termination rights in the event of a significant disruption in our platform. To the extent that our third-party service providers experience outages, or to the extent we do not 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, our business and operating results may be adversely affected.

Our use of “open source” software could negatively affect our ability to offer our applications and subject us to possible litigation.

Our applications use “open source” software that we, in some cases, have obtained from third parties. Open source software is generally freely accessible, usable and modifiable, and is made available to the general public on an “as-is” basis under the terms of a non-negotiable license. Use and distribution of open source software may entail greater risks than use of third-party commercial software. Open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the software. In addition, certain open source licenses, like the GNU Affero General Public License, or AGPL, may require us to offer for no cost the components of our software that incorporate the open source software, to make available source code for modifications or derivative works we create by incorporating or using the open source software, or to license our modifications or derivative works under the terms of the particular open source license. If we are required, under the terms of an open source license, to release the source code of our proprietary software to the public, our competitors could create similar applications with lower development effort and time, which ultimately could result in a loss of sales for us.

We may also face claims alleging noncompliance with open source license terms or infringement or misappropriation of proprietary software. These claims could result in litigation, require us to purchase a costly license or require us to devote additional research and development resources to re-engineer our applications, any of which would have a negative effect on our business and operating results, including being enjoined from the offering of the components of our software that contained the open source software. We could also be subject to suits 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 operating results and financial condition and require us to devote additional research and development resources to re-engineer our applications.

Although we monitor our use of open source software to avoid subjecting our applications to unintended conditions, few courts have interpreted open source licenses, 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 applications. We cannot guarantee that we have incorporated open source software in our software in a manner that will not subject us to liability, or in a manner that is consistent with our current policies and procedures.

Our business is dependent upon our brand recognition and reputation, and if we fail to maintain or enhance our brand recognition or reputation, our business could be harmed.

We believe that maintaining and enhancing our brand and our reputation are critical to our relationships with our customers and to our ability to attract new customers. We also believe that our brand and reputation will be increasingly important as competition in our market continues to develop. Our success in this area will depend on a wide range of factors, some of which are beyond our control, including the following:

- the efficacy of our marketing efforts;
- our ability to continue to offer high-quality, innovative and error- and bug-free applications;
- our ability to maintain the security and privacy of our customer’s sensitive and proprietary information;
- our ability to retain existing customers and obtain new customers;
- our ability to maintain high customer satisfaction;
- the quality and perceived value of our applications;
- our ability to successfully differentiate our applications from those of our competitors;
- actions of competitors and other third parties;
- our ability to provide high quality customer support and professional services;

- any data breach or data loss or misuse or perceived misuse of our applications;
- positive or negative publicity;
- interruptions, delays or attacks on our platform or applications; and
- litigation, legislative or regulatory-related developments.

If our brand promotion activities are not successful, our operating results and growth may be harmed.

Furthermore, negative publicity, whether or not justified, relating to events or activities attributed to us, employees, partners or others associated with any of these parties, may tarnish our reputation and reduce the value of our brand. Damage to our reputation and loss of brand equity may reduce demand for our applications and have an adverse effect on our business, operating results and financial condition. Moreover, any attempts to rebuild our reputation and restore the value of our brands may be costly and time consuming, and such efforts may not ultimately be successful.

We are materially invested in the formation and growth of the TBM Council, and our efforts in that area may fail to have a positive effect on our overall growth.

We have invested a significant amount of our money and time into the formation and growth of the TBM Council. Our ability to help build that organization, maintain strong relationships with the individuals involved, and build a positive public profile of the TBM Council and our association with the council, may have an effect on our overall success. It is possible that our efforts in this area will not yield the results that we are anticipating or the benefits of such efforts will not offset the costs.

We rely upon data centers and other systems and technologies provided by third parties, and technology systems and electronic networks supplied and managed by third parties, to operate our business and interruptions or performance problems with these systems, technologies and networks may adversely affect our business and operating results.

We rely on data centers and other technologies and services provided by third parties in order to operate our business. If any of these services becomes unavailable or otherwise is unable to serve our requirements due to extended outages, interruptions, facility closure, or because it is no longer available on commercially reasonable terms, expenses could increase, our ability to manage finances could be interrupted and our operations otherwise could be disrupted or otherwise impacted until appropriate substitute services, if available, are identified, obtained, and implemented.

We do not control, or in some cases have limited control over, the operation of the data center facilities we use, and they are vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures and similar events. They may also be subject to break-ins, sabotage, intentional acts of vandalism and similar misconduct, and to adverse events caused by operator error. We may not be able to rapidly switch to new data centers or move customers from one data center to another in the event of any adverse event. Despite precautions taken at these facilities, the occurrence of a natural disaster, an act of terrorism or other act of malfeasance, a decision to close the facilities without adequate notice or other unanticipated problems at these facilities could result in lengthy interruptions in our service and the loss of customer data.

Our ability to provide services and solutions to our subscribers also depends on our ability to communicate with our subscribers through the public internet and electronic networks that are owned and operated by third parties. In addition, in order to provide services on-demand and promptly, our computer equipment and network servers must be functional 24 hours per day, which requires access to telecommunications facilities managed by third parties and the availability of electricity, which we do not control. A severe disruption of one or more of these networks or facilities, including as a result of utility or third-party system interruptions, could impair our ability to process information and provide services to our customers.

Any unavailability of, or failure to meet our requirements by, third-party data centers or other third-party technologies or services, or any disruption of the internet or the third-party networks or facilities that we rely upon, could impede our ability to provide services to our subscribers, harm our reputation, result in a loss of subscribers, cause us to issue refunds or service credits to customers, subject us to potential liabilities, result in contract terminations, and adversely affect our renewal rates. Any of these circumstances could adversely affect our business and operating results.

Catastrophic events may disrupt our business and impair our ability to provide our solutions to our customers, resulting in costs for remediation, customer dissatisfaction, and other business or financial losses.

Our operations depend, in part, on our ability to protect our facilities against damage or interruption from natural disasters, power or telecommunications failures, criminal acts and similar events. Despite precautions taken at our facilities, the occurrence of a

natural disaster, an act of terrorism, vandalism or sabotage, spikes in usage volume or other unanticipated problems at a facility could result in lengthy interruptions in the availability of our applications. Our headquarters are located in Bellevue, Washington, which is situated near active earthquake fault lines. Even with current and planned disaster recovery arrangements, our business could be harmed. Also, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses that we may incur. These factors in turn could further reduce revenue, subject us to liability and cause us to issue credits or cause customers to fail to renew their subscriptions, any of which could harm our business.

We may not timely and effectively scale our existing technology, including our computing architecture, to meet the performance and other requirements placed on our systems, which could increase expenditures unexpectedly and create risk of outages and other performance and quality of service issues for our customers.

Our future growth and renewal rates depend on our ability to meet our customers' expectations with respect to the speed and other performance attributes of our solutions, and to meet the expanding needs of our customers as their use of our solutions grows. The number of users, the amount and complexity of data ingested, created, transferred, processed and stored by us, the number of locations where our applications are being accessed, and the number of processes and systems managed by us on behalf of these customers, among other factors, separately and combined, can have an effect on the performance of our applications. In order to ensure that we meet the performance and other requirements of our customers, we continue to make significant investments to develop and implement new technologies in our software and infrastructure operations. These technologies, which include database, application and server advancements, revised network and hosting strategies, and automation, are often advanced, complex, and sometimes broad in scope and untested via industry-wide usage. We may not be successful in developing or implementing these technologies. To the extent that we do not develop offerings and scale our operations in a manner that maintains performance as our customers expand their use, our business and operating results may be harmed.

We may not accurately assess the capital and operational expenditures required to successfully fulfill our objectives and our financial performance may be harmed as a result. Further, we may make mistakes in the technical execution of these efforts to improve our solutions, which may affect our customers. Issues that may arise include performance (speed), data loss, and outages as well as other issues that could give rise to customer satisfaction issues, loss of business, and harm to our reputation. If any of these were to occur there would be a negative and potentially significant impact to our financial performance. Lastly, our ability to generate new applications, and improve our current solutions may be limited if and to the extent resources are necessarily allocated to address issues related to the performance of existing solutions.

Real or perceived errors, failures, or bugs in our applications could adversely affect our operating results and growth prospects.

We update our applications on a frequent basis. Despite efforts to test our updates, errors, failures or bugs may not be found in our applications until after they are deployed to our customers. We have discovered and expect we will continue to discover errors, failures and bugs in our applications and anticipate that certain of these errors, failures and bugs will only be discovered and remediated after deployment to customers. Real or perceived errors, failures or bugs in our applications could result in negative publicity, government inquiries, loss of or delay in market acceptance of our applications, loss of competitive position, or claims by customers for losses sustained by them. In such an event, we may be required, or may choose, for customer relations or other reasons, to expend additional resources in order to help correct the problem.

We implement bug fixes and upgrades as part of our regular system maintenance, which may lead to system downtime. Even if we are able to implement the bug fixes and upgrades in a timely manner, any history of inaccuracies in the data we collect for our customers, or the loss, damage or inadvertent release or exposure of confidential or other sensitive data could cause our reputation to be harmed and result in claims against us, and customers may elect not to purchase or renew their agreements with us or we may incur increased insurance costs. The costs associated with any material defects or errors in our applications or other performance problems may be substantial and could harm our operating results.

Because many of our customers use our applications to store and retrieve critical information, we may be subject to liability claims if our applications do not work properly. We cannot be certain that the limitations of liability set forth in our licenses and agreements would be enforceable or would otherwise protect us from liability for damages. A material liability claim against us, regardless of its merit or its outcome, could result in substantial costs, significantly harm our business reputation and divert management's attention from our operations.

We are subject to governmental laws, regulation and other legal obligations, particularly related to privacy, data protection and information security, and any actual or perceived failure to comply with such obligations could harm our business.

Personal privacy and information security are significant issues in the United States and the other jurisdictions where we offer our applications. The legislative and regulatory framework for privacy and security issues worldwide is rapidly evolving and is likely

to remain uncertain for the foreseeable future. We collect personally identifiable information, or PII and other data from our customers and users. Our handling of data is subject to a variety of laws and regulations, including regulation by various government agencies, including the U.S. Federal Trade Commission, or FTC, and various state, local and foreign agencies.

In the United States, the FTC and many state attorneys general are applying federal and state consumer protection laws to impose standards for the online collection, use and dissemination of data. Many foreign countries and governmental bodies, including the European Union, or EU, Canada, and other relevant jurisdictions where we conduct business, have laws and regulations concerning the collection and use of PII and other data obtained from their residents or by businesses operating within their jurisdiction. These laws and regulations often are more restrictive than those in the United States. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure and security of data that identifies or may be used to identify or locate an individual, such as names, email addresses and, in some jurisdictions, Internet Protocol addresses. In the EU, where companies must meet specified privacy and security standards, the General Data Protection Regulation, GDPR, became fully effective in May 2018, superseding previous EU data protection law in the EU. The GDPR requires comprehensive information privacy and security protections for consumers with respect to PII collected about them, and provides for substantial penalties for noncompliance.

With respect to transfers of personal data outside of the European Economic Area, or EEA, we have self-certified to the EU-U.S. Privacy Shield Framework, and in certain cases have entered into contractual provisions with certain European customers that impose additional obligations on us with respect to our handling of personal data from the EEA. The EU-U.S. Privacy Shield is currently under review by regulatory authorities and it and certain standard contractual clauses used for cross-border data transfer from the EU both have been the subject of legal challenges in European courts. The absence of successor legal bases for continued data transfer could require us to create duplicative, and potentially expensive, information technology infrastructure and business operations in Europe or limit our ability to collect and use personal information collected in Europe. Any of these changes with regard to EU data protection law could disrupt our business.

We publicly post our privacy policies and practices concerning our processing, use and disclosure of PII. Our publication of our Privacy Shield filing, our privacy policy, 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. Additionally, we may find it necessary or desirable to join industry or other self-regulatory bodies or other privacy- or data protection-related organizations that require compliance with their rules pertaining to privacy and data protection. We also may be bound by additional, more stringent contractual obligations relating to our collection, use and disclosure of PII and other data.

In June 2016, the United Kingdom held a referendum and voted in favor of leaving the European Union, and in March 2017, the government of the United Kingdom formally initiated the two-year withdrawal process, which has created uncertainty with regard to the regulation of data protection in the United Kingdom. A Data Protection Bill that substantially implements the European Union's European General Data Protection Regulation was implemented in May 2018. It is unclear, however, how United Kingdom data protection laws or regulations will develop in the medium to longer term and how data transfers to and from the United Kingdom will be regulated.

Although we are working to comply with those federal, state, and foreign laws and regulations, industry standards, governmental 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 applications or platform. 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 PII 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. For example, some of our customers rely on our certification under the Federal Risk and Authorization Management Program, or FedRAMP, to comply with U.S. federal acquisition requirements related to subscriptions to cloud services. Any inability to adequately address privacy and security concerns, even if unfounded, or comply with applicable laws, regulations, policies, industry standards, governmental 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. 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 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 information stored or maintained by such companies, inform individuals of security breaches that affect their personal information, and, in some cases, obtain individuals' consent to use PII or other data for certain purposes. In addition, a foreign government could require that any data collected in a country not be disseminated outside of that country, and we may face difficulty in complying with any such requirement for certain geographic regions. If we 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.

Third-party claims that we are infringing the intellectual property rights of others, whether successful or not, could subject us to costly and time-consuming litigation or require us to obtain expensive licenses, and our business could be harmed.

The technology industry is characterized by the existence of a large number of patents, copyrights, trademarks, trade secrets and other intellectual property rights. Companies in the technology industry must often defend against litigation claims based on allegations of infringement or other violations of intellectual property rights. Third parties, including our competitors, may own patents or other intellectual property rights that cover aspects of our technology or business methods and may assert patent or other intellectual property rights against us and others in the industry. Moreover, in recent years, individuals and groups that are non-practicing entities, commonly referred to as "patent trolls," have purchased patents and other intellectual property assets for the purpose of making claims of infringement in order to extract settlements. From time to time, we may receive threatening letters, notices or "invitations to license," or may be the subject of claims that our applications and business operations infringe or violate the intellectual property rights of others. Responding to such claims, regardless of their merit, can be time consuming, costly to defend in litigation, divert management's attention and resources, damage our reputation and brand and cause us to incur significant expenses. Claims of intellectual property infringement might require us to stop using technology found to infringe a third party's rights, redesign our application, which could require significant effort and expense and cause delays of releases, enter into costly settlement or license agreements or pay costly damage awards, or face a temporary or permanent injunction prohibiting us from marketing or selling our applications. If we cannot or do not license the infringed technology on reasonable terms or at all, or substitute similar technology from another source, we could be forced to limit or stop selling our applications, we may not be able to meet our obligations to customers under our customer contracts, revenue and operating results could be adversely impacted, and we may be unable to compete effectively. Additionally, our customers may not purchase our applications if they are concerned that they may infringe third-party intellectual property rights. The occurrence of any of these events may harm our business.

In our subscription agreements with our customers, we generally agree to indemnify our customers against any losses or costs incurred in connection with claims by a third party alleging that the customer's use of our applications infringes the intellectual property rights of the third party. Our customers who are accused of intellectual property infringement may seek indemnification from us. If any claim is successful, or if we are required to indemnify or defend our customers from any of these or other claims, these matters could be disruptive to our business and management and result in additional legal expenses.

The success of our business depends in part on our ability to protect and enforce our intellectual property rights.

Our success is dependent, in part, upon protecting our proprietary technology. Our issued patents, and any patents issued in the future, may not provide us with any competitive advantages or may be challenged by third parties, and our patent applications may never be granted. Additionally, the process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. Even if issued, there can be no assurance that these patents will adequately protect our intellectual property, as the legal standards relating to the validity, enforceability and scope of protection of patent and other intellectual property rights are uncertain.

Any patents that are issued may subsequently be invalidated or otherwise limited, allowing other companies to develop offerings that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. In addition, issuance of a patent does not guarantee that we have a right to practice the patented invention. Patent applications in the United States are typically not published until 18 months after filing or, in some cases, not at all, and publications of discoveries in industry-related literature lag behind actual discoveries. We cannot be certain that we were the first to use the inventions claimed in our issued patents or pending patent applications or otherwise used in our software, that we were the first to file for protection in our patent applications, or that third parties do not have blocking patents that could be used to prevent us from marketing or practicing our patented software or technology. Effective patent, trademark, copyright and trade secret protection may not be available to us in every country in which our software is available. The laws of some foreign countries may not be as protective of intellectual property rights as those in the United States (in particular, some foreign jurisdictions do not permit patent protection for software), and mechanisms for enforcement of intellectual property rights may be inadequate. Additional uncertainty may result from changes to intellectual property legislation enacted in the United States (including the recent "America Invents Act") and other national governments and from interpretations of the intellectual property laws of the United States and other countries by applicable courts and agencies.

Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our intellectual property.

Although we enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with our customers and 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 applications and propriety information or prevent reverse engineering. Further, these agreements may not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our applications, and we may be unable to prevent this competition.

We may be required to spend significant resources to monitor and protect our intellectual property rights. Litigation may be necessary in the future to enforce our intellectual property rights. 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. We may not prevail in any lawsuits that we initiate. Any litigation, whether or not resolved in our favor, could subject us to substantial costs, divert resources and the attention of management and technical personnel from our business and adversely affect our business. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation, could delay further sales or the implementation of our software and offerings, impair the functionality of our software and offerings, delay introductions of new features or enhancements, result in our substituting inferior or more costly technologies into our software and offerings, or injure our reputation.

We may initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Litigation also puts our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing. Additionally, we may provoke third parties to assert counterclaims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially viable. Any litigation, whether or not it is resolved in our favor, could result in significant expense to us and divert the efforts of our technical and management personnel, which may adversely affect our business, results of operations, financial condition and cash flows.

Future acquisitions could disrupt our business and may divert management's attention and if unsuccessful, harm our business.

We may choose to expand by making acquisitions that could be material to our business. To date, we have completed three acquisitions, one minor acquisition in each of 2012 and 2018, and the Digital Fuel acquisition in 2018, and our ability as an organization to successfully acquire and integrate technologies or businesses is unproven and limited. Acquisitions involve many risks, including the following:

- an acquisition may negatively affect our results of operations and financial condition because it may require us to incur charges or assume substantial debt or other liabilities, may cause adverse tax consequences or unfavorable accounting treatment, may expose us to claims and disputes by third parties, including intellectual property claims and disputes, or may not generate sufficient financial return to offset additional costs and expenses related to the acquisition;
- we may encounter difficulties or unforeseen expenditures in integrating the business, technologies, products, personnel or operations of any company that we acquire, particularly if key personnel of the acquired company decide not to work for us;
- an acquisition may disrupt our ongoing business, divert resources, increase expenses and distract management;
- an acquisition may disrupt existing or potential new partner relationships;
- an acquisition may result in a delay or reduction of customer purchases for both us and the company we acquired due to customer uncertainty about continuity and effectiveness of service from either company;
- we may encounter difficulties in, or may be unable to, successfully sell any acquired products;
- an acquisition may involve the entry into geographic or business markets in which we have little or no prior experience or where competitors have stronger market positions;
- challenges inherent in effectively managing an increased number of employees in diverse locations;
- the potential strain on our financial and managerial controls and reporting systems and procedures;
- potential known and unknown liabilities associated with an acquired company;
- our use of cash to pay for acquisitions would limit other potential uses for our cash;

- if we incur debt to fund such acquisitions, such debt may subject us to material restrictions on our ability to conduct our business as well as financial maintenance covenants;
- the risk of impairment charges related to potential write-downs of acquired assets or goodwill in future acquisitions;
- to the extent that we issue a significant amount of equity or equity-linked securities in connection with future acquisitions, existing stockholders may be diluted and earnings per share may decrease; and
- managing the varying intellectual property protection strategies and other activities of an acquired company.

We may not succeed in addressing these or other risks or any other problems encountered in connection with the integration of any acquired business. The inability to integrate successfully the business, technologies, products, personnel or operations of any acquired business, or any significant delay in achieving integration, could harm our business and operating results.

We have identified a material weakness in our internal control over financial reporting that, if not properly remediated, could result in material misstatements in our financial statements in future periods and impair our ability to comply with the accounting and reporting requirements applicable to public companies.

Prior to the public disclosure of our 2018 first quarter results, a correction to our statement of cash flows for the presentation of an accrued, but unpaid, working capital adjustment related to the Digital Fuel acquisition was identified. Although we correctly accounted for such working capital adjustment in our public disclosures, we determined that there was a material weakness in our internal control over financial reporting as of March 31, 2018 as this control deficiency could result in a misstatement of the aforementioned disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. We believe this issue resulted from insufficient internal resources to manage several complex and non-recurring transactions that occurred in the first quarter of 2018, and became apparent as a result of such transactions.

Our management, with oversight from our audit committee, has begun to implement remediation actions, including hiring of additional accounting and financial reporting personnel, ensuring that we maintain appropriate staffing levels to handle significant transactions, to address the material weakness and to improve our internal control over financial reporting. We cannot assure you that the measures we have taken to date, and actions we may take in the future, will be sufficient to remediate the control deficiencies that led to this material weakness in our internal control over financial reporting or that they will prevent or avoid potential future material weaknesses. In addition, as of September 30, 2018, neither our management nor our independent registered public accounting firm has performed an evaluation of our internal control over financial reporting in accordance with the provisions of Section 404 of the Sarbanes-Oxley Act of 2002, or SOX Section 404 because no such evaluation has been required. Had we or our independent registered public accounting firm performed an evaluation of our internal control over financial reporting in accordance with the provisions of SOX Section 404, additional material weaknesses may have been identified.

An evaluation of our internal control over financial reporting in accordance with the provisions of SOX Section 404 will be required commencing with our annual report on Form 10-K for our year ending December 31, 2018. If while preparing for such evaluation, we or our independent registered public accounting firm identify other material weaknesses in our internal control over financial reporting or determine that the existing material weakness has not been remediated, our management will be unable to assert that our internal control over financial reporting is effective. Even if our management concludes that our internal control over financial reporting is effective, our independent registered public accounting firm may conclude that there are material weaknesses with respect to our internal controls or the level at which our internal controls are documented, designed, implemented or reviewed.

If our remediation efforts are not successful or other material weaknesses or control deficiencies are identified or occur in the future, or if we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, we will need to undertake various actions, such as implementing new internal controls and procedures and hiring additional staff to remediate the material weaknesses. As a result, we may be unable to report our financial results accurately or on a timely basis, which could cause our reported financial results to be materially misstated and result in the loss of investor confidence, delisting from the Nasdaq Global Market, SEC inquiries, or stockholder litigation or other disputes. Any of these factors could cause the trading price of our common stock to decline, harm our reputation, or divert financial and management resources from our core business.

Our ability to raise capital in the future may be limited, and if we fail to raise capital when needed, we could be prevented from growing.

Our business and operations may consume resources faster than we anticipate. While we believe our cash and cash equivalents and cash flows from operations will be sufficient to support our planned operations for at least the next 12 months, in the future, we may need to raise additional funds to invest in future growth opportunities. In March 2018, we issued and sold a total of \$143.8 million in aggregate principal amount of 0.875% convertible senior notes, and we may in the future engage in additional equity, equity-linked or debt financings to secure additional funds. Additional financing may not be available on favorable terms, if at all. If adequate funds are not available on acceptable terms, we may be unable to invest in future growth opportunities, which could harm our business and operating results. In addition, future debt instruments may impose restrictions on our ability to dispose property, make changes in our business, engage in mergers or acquisitions, incur additional indebtedness, and make investments and distributions. Furthermore, if we issue additional equity securities, stockholders will experience dilution, and the new equity securities could have rights senior to those of our common stock. Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. As a result, stockholders bear the risk that future securities offerings reduce the market price of our Class A common stock and dilute their interest.

We 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, which could harm our business.

We do not collect sales and use, value added and similar taxes in all jurisdictions in which we have sales, based on our belief that such taxes are not applicable in certain jurisdictions. State, local and foreign jurisdictions have differing rules and regulations governing sales, use, value added and other taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of such taxes to our software in various jurisdictions is unclear. Further, these jurisdictions' rules regarding tax nexus are complex and vary significantly. As a result, we could face the possibility of tax assessments and audits. Our liability for these taxes and associated penalties and interest could exceed our original estimates, and we could be required to collect additional taxes in the future. A successful assertion that we should be collecting additional sales, use, value added or other taxes in those jurisdictions where we have not historically done so and do not accrue for such taxes could result in substantial tax liabilities and related penalties for past sales, discourage customers from purchasing our application or otherwise harm our business and operating results.

Changes in tax laws or regulations that are applied adversely to us or our customers could increase the costs of our applications and adversely impact our business.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could affect the tax treatment of our (and our subsidiaries') domestic and foreign earnings. Any new taxes could adversely affect 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. For example, the recently adopted Tax Cuts and Jobs Act of 2017, or the Tax Act, contains many significant changes to U.S. tax laws, including changes in corporate tax rates, the taxation of foreign earnings, and the deductibility of certain expenses. We have performed preliminary analyses of the impacts of the Tax Act using the information available at this time regarding our deferred tax assets and liabilities and taxation of foreign earnings. The impact of the Tax Act may differ from our initial estimates due to, among other things, changes in interpretations and assumptions we have made, Internal Revenue Service and Treasury Department guidance that may be issued and actions we may take. The effects of Tax Act provisions are still being evaluated by management, and this report does not purport to disclose all the effects of the Tax Act which could have material positive or negative impacts on our current or future tax position. Furthermore, changes to the taxation of undistributed foreign earnings could change our future intentions regarding reinvestment of such earnings.

In addition, taxation of cloud-based applications is constantly evolving as many state and local jurisdictions consider the taxability of software services provided remotely. 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 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 continue or purchase our platform or applications 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 software. Any or all of these events could harm our business and operating results.

We are a multinational organization faced with increasingly complex tax issues in many jurisdictions, and we could be obligated to pay additional taxes in various jurisdictions.

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, and significant judgment and estimates are required in determining our provision for taxes. Our tax expense may be impacted if our intercompany transactions, which are required to be computed on an arm's-length basis, are challenged and successfully disputed by tax authorities. Our policies governing transfer pricing may be determined to be inadequate and could result in additional tax assessments. 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 operating results. 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 or other taxes apply to us or our subsidiaries (including withholding and indirect taxes on software licenses and related intercompany transactions) or assert that benefits of tax treaties are not available to us or our subsidiaries, any of which could adversely affect our operating results.

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

As of December 31, 2017, we had federal net operating loss carryforwards of approximately \$207.9 million, which will expire between 2028 and 2036. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change" (generally defined as a greater than 50-percentage-point cumulative change (by value) in the equity ownership of certain stockholders over a rolling three-year period), the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change taxable income or taxes may be limited. We may experience such an ownership change in the future as a result of subsequent shifts in our stock ownership, some of which are outside our control. Furthermore, our ability to utilize the net operating losses or other tax attributes of companies that we may acquire in the future may be subject to limitations. There is also a risk that due to regulatory changes, such as suspensions on the use of net operating losses, or other unforeseen reasons, our existing net operating losses could expire or otherwise be unavailable to offset future income tax liabilities. For these reasons, our ability to use our pre-change net operating loss carryforwards and other pre-change tax attributes to offset post-change taxable income or taxes may be subject to limitation, which could potentially result in increased future tax liability to us.

Future changes in the regulations and laws of the United States, or those of the international markets in which we do business, could harm our business.

We are subject to general business regulations and laws, as well as regulations and laws specifically governing the internet and software, in the United States as well as the international markets in which we do business. These regulations and laws may cover employment, taxation, privacy, data protection, pricing, content, copyrights, mobile communications, electronic contracts and other communications, consumer protection, unencumbered internet access to our services, the design and operation of websites, and the characteristics and quality of software and services. It is possible changes to these regulations and laws, as well as compliance challenges related to the complexity of multiple, conflicting and changing sets of applicable regulations and laws, may impact our sales, operations, and future growth.

Significant U.K. or European developments stemming from the U.K.'s referendum on membership in the European Union could have a material adverse effect on us.

In March 2017, the government of the United Kingdom formally initiated the withdrawal process from the European Union. This has created political and economic uncertainty, particularly in the United Kingdom and the European Union, and this uncertainty may last for years. Our business in the United Kingdom, the European Union, and worldwide could be affected during this period of uncertainty, and perhaps longer, by the impact of the United Kingdom's referendum. There are many ways in which our business could be affected, only some of which we can identify as of the date of this report.

The decision of the United Kingdom to withdraw from the European Union, has caused and, along with events that could occur in the future as a consequence of the United Kingdom's withdrawal, including the possible breakup of the United Kingdom, may continue to cause significant volatility in global financial markets, including in global currency and debt markets. This volatility could cause a slowdown in economic activity in the United Kingdom, Europe or globally, which could adversely affect our operating results and growth prospects. In addition, our business could be negatively affected by new trade agreements or data transfer agreements between the United Kingdom and other countries, including the United States, and by the possible imposition of trade or other regulatory barriers in the United Kingdom. Furthermore, we currently operate in Europe through a subsidiary based in the United Kingdom, which currently provides us with certain operational, tax and other benefits, as well as through other subsidiaries in Europe. The United Kingdom's withdrawal from the European Union could adversely affect our ability to realize those benefits and we may

incur costs and suffer disruptions in our European operations as a result. These possible negative impacts, and others resulting from the United Kingdom's actual or threatened withdrawal from the European Union, may adversely affect our operating results and growth prospects.

Increased sales to U.S. federal, state, local and foreign governments expose us to risks inherent in government sales and procurement.

Contracts with U.S. federal, state, local and foreign government entities are subject to various procurement regulations and other requirements relating to their formation, administration and performance. We may be subject to audits and investigations relating to our government contracts and any violations could result in various civil and criminal penalties and administrative sanctions, including termination of contract, refunding or suspending of payments, forfeiture of profits, payment of fines and suspension or debarment from future government business. Further, in order to obtain, and in some cases expedite, sales to certain government customers, we may enter into subcontractor agreements with existing approved government contractors subjecting us to further risks associated with those subcontractor agreements as well as the potential default or breach of the underlying agreements between the approved government contractors and government entity to which we are not a party.

Risks Related to the Ownership of our Common Stock

Our stock price may fluctuate significantly and the value of your investment may decline significantly.

The trading price of Class A common stock may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition to the other risks discussed in this report, these factors include:

- actual or anticipated fluctuations in revenue and other operating results, including as a result of the addition or loss of any number of customers;
- announcements by us or our competitors of significant technical innovations, acquisitions, strategic partnerships, joint ventures or capital commitments;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- failure of securities analysts to maintain coverage of us, changes in ratings and financial estimates and the publication of other news by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- changes in operating performance and stock market valuations of cloud-based software or other technology companies, or those in our industry in particular;
- the size of our public float;
- price and volume fluctuations in the trading of our Class A common stock and in the overall stock market, including as a result of trends in the economy as a whole or in the technology industry;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business or industry, including data privacy and data security;
- lawsuits threatened or filed against us for claims relating to intellectual property, employment issues or otherwise;
- changes in our board of directors or management;
- short sales, hedging and other derivative transactions involving our Class A common stock;
- sales of large blocks of our common stock including sales by our executive officers, directors and significant stockholders; and
- other events or factors, including changes in general economic, industry and market conditions and trends, as well as any natural disasters that may affect our operations.

The stock market in general, and market prices for the securities of technology companies like ours in particular, have from time to time experienced volatility that often has been unrelated to the operating performance of the underlying companies. These broad market and industry fluctuations may adversely affect the market price of our Class A common stock, regardless of our operating performance. In several recent situations when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against

us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our operating results.

If securities or industry analysts issue an adverse opinion about our business, our stock price and trading volume could decline.

The trading market for our Class A common stock is and will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us issues an adverse opinion about our company, our stock price would likely decline. If one or more of these analysts ceases research coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Future sales of our common stock could cause our stock price to fall.

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 common stock to decline. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

As of October 25, 2018, 45,104,489 shares of our Class A common stock were outstanding and no shares of our Class B common stock were outstanding. All shares of common stock sold are freely tradable without restriction or further registration under the Securities Act, unless held by our “affiliates,” as that term is defined in Rule 144 under the Securities Act. In addition, the shares subject to outstanding options, restricted stock units, or RSUs, of which options and RSUs to purchase 4,997,449 shares and 2,416,365, respectively, were outstanding as of October 25, 2018, and the shares reserved for future issuance under our equity incentive plans will become available for sale immediately upon the exercise of such options. We register the offer and sale of all shares of common stock that we may issue under our equity incentive plans. As a consequence, the sale of shares to be issued under our equity incentive plans can be freely sold in the public market upon issuance, subject to the restrictions of Rule 144 under the Securities Act, in the case of our affiliates.

As of October 25, 2018, the holders of approximately 10% of our common stock, have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. Once we register the offer and sale of shares for the holders of registration rights, they can be freely sold in the public market upon issuance, subject to the restrictions of Rule 144 under the Securities Act, in the case of our affiliates.

In addition, in the future, we may issue additional shares of Class A common stock or other equity or debt securities convertible into Class A common stock in connection with a financing, acquisition, commercial relationship, litigation settlement, employee arrangements or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause our stock price to decline.

Servicing our Notes may require a significant amount of cash, and we may not have sufficient cash flow or the ability to raise the funds necessary to satisfy our obligations under the Notes, and our current and future indebtedness may limit our operating flexibility or otherwise affect our business.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance any current or future indebtedness, including the Notes, or to make cash payments in connection with any conversion of Notes or upon any fundamental change if note holders require us to repurchase their notes for cash, 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 indebtedness 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 indebtedness or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our 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, our existing and future indebtedness could have important consequences to our stockholders and significant effects on our business. For example, it could:

- make it more difficult for us to satisfy our debt obligations, including the Notes;
- increase our vulnerability to general adverse economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- restrict us from exploiting business opportunities;
- place us at a competitive disadvantage compared to our competitors that have less indebtedness; and
- limit our availability to borrow additional funds for working capital, capital expenditures, acquisitions, debt service requirements, execution of our business strategy or other general purposes.

Transactions relating to our Notes may dilute the ownership interest of existing stockholders, or may otherwise depress the price of our Class A common stock.

If the Notes are converted by holders, we have the ability under the indenture for the Notes to deliver cash, Class A common stock, or any combination of cash or Class A common stock, at our election upon conversion of the Notes. If we elect to deliver Class A common stock upon conversion of the Notes, it would dilute the ownership interests of existing stockholders. Any sales in the public market of the Class A common stock issuable upon such conversion could adversely affect prevailing market prices of our Class A common stock. In addition, certain holders of the Notes may engage in short selling to hedge their position in the Notes. Anticipated future conversions of such Notes into shares of our Class A common stock could depress the price of our Class A common stock.

Anti-takeover provisions in our charter documents and under Delaware or Washington law could make an acquisition of us difficult, limit attempts by our stockholders to replace or remove our current management and adversely affect our stock price.

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our stock. Among other things, the certificate of incorporation and bylaws will:

- permit the board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly-created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide the board of directors into three classes;
- provide that a director may only be removed from the board of directors by the stockholders for cause;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be taken by written consent;

- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and meet specific requirements as to the form and content of a stockholder's notice;
- prevent cumulative voting rights (therefore allowing the holders of a plurality of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- require that, to the fullest extent permitted by law, a stockholder reimburse us for all fees, costs and expenses incurred by us in connection with a proceeding initiated by such stockholder in which such stockholder does not obtain a judgment on the merits that substantially achieves the full remedy sought;
- provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer (or president, in the absence of a chief executive officer) or by the board of directors;
- provide that stockholders will be permitted to amend the bylaws only upon receiving at least two-thirds of the total votes entitled to be cast by holders of all outstanding shares then entitled to vote generally in the election of directors, voting together as a single class; and
- authorize two classes of common stock.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder. Likewise, because our principal executive offices are located in Washington, the anti-takeover provisions of the Washington Business Corporation Act may apply to us under certain circumstances now or in the future. These provisions prohibit a "target corporation" from engaging in any of a broad range of business combinations with any stockholder constituting an "acquiring person" for a period of five years following the date on which the stockholder became an "acquiring person."

Our certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our certificate of incorporation provides that, unless we otherwise consent in writing, the Court of Chancery of the State of Delaware is 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 certificate of incorporation or our bylaws, any action to interpret, apply, enforce, or determine the validity of our certificate of incorporation or bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. The 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 our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our 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 adversely affect our business and financial condition.

We are an "emerging growth company," and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our Class A common stock less attractive to investors.

We are currently an "emerging growth company," as defined in the Jumpstart Our Business Startups, or JOBS, Act enacted in April 2012, and, for as long as we continue to be an "emerging growth company," we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to "emerging growth companies," including, but not limited to, not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an "emerging growth company" for up to five years following the closing of our IPO, although, if we have more than \$1.07 billion in annual revenue, if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the last business day in June, or we issue more than \$1.0 billion of non-convertible debt over a three-year period before the end of that five-year period, we would cease to be an "emerging growth company" as of the following December 31. We cannot predict if investors will find our Class A common stock less attractive if we choose to rely on these exemptions. If some investors find our Class A common stock less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

As an “emerging growth company” the JOBS Act, allows us to delay adoption of new or revised accounting pronouncements applicable to public companies until such pronouncements are made applicable to private companies. We have elected to use this extended transition period under the JOBS Act. As a result, our financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors.

As of December 31, 2018, we will no longer qualify as an “emerging growth company” as defined in the JOBS Act because we will qualify as a “large accelerated filer,” with at least \$700 million of equity securities held by non-affiliates. When we cease to be an “emerging growth company,” our independent registered public accounting firm is required to undertake an assessment of our internal control over financial reporting, with such attestation report required to be included in our Annual Report on Form 10-K for the year ending December 31, 2018. If we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the trading market for our Class A common stock and our stock price could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

Our compliance with applicable provisions of Section 404 will also require that we implement additional corporate governance practices and comply with reporting requirements, such as being required to hold a say-on-pay vote and a say-on-frequency vote at our 2019 annual meeting of stockholders, and we will no longer be entitled to provide the reduced executive compensation disclosures in our Annual Report on Form 10-K and proxy statement for the year ending December 31, 2018. As a result, we expect that our loss of “emerging growth company” status will require additional attention from management and will result in increased costs to us, which could include higher legal fees, accounting fees and fees associated with investor relations activities, among others.

We incur increased costs by being a public company.

As a public company, and particularly after we cease to be an “emerging growth company” effective as of our year ending December 31, 2018, we will incur greater legal, accounting and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. We also anticipate that we will incur costs associated with corporate governance requirements, including requirements of the SEC and the Nasdaq Global Market. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. We also expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as executive officers. We are currently evaluating and monitoring developments with respect to these rules, and we cannot predict or estimate the amount of additional costs we may incur.

When our independent registered public accounting firm is required to undertake an assessment of our internal control over financial reporting, the cost of our compliance with Section 404 will correspondingly increase. Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

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

None.

Item 6. Exhibits.**(a) Exhibits**

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X
32.1+	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2+	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
101.INS	XBRL Instance Document				X
101.SCH	XBRL Taxonomy Extension Schema Linkbase Document				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				X

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

SIGNATURES

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

Apptio, Inc.

Date: October 31, 2018

By: _____
/s/ Sachin Gupta
Sachin Gupta
President and Chief Executive Officer
(Principal Executive Officer)

Date: October 31, 2018

By: _____
/s/ Kurt Shintaffer
Kurt Shintaffer
Chief Financial Officer
(Principal Financial and Accounting Officer)

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

I, Sachin Gupta, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Aptio, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - 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: October 31, 2018

/s/ Sachin Gupta
Sachin Gupta
Chief Executive Officer
(Principal Executive Officer)

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

I, Kurt Shintaffer, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Apttio, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - 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: October 31, 2018

/s/ Kurt Shintaffer

Kurt Shintaffer

Chief Financial Officer

(Principal Financial and Accounting Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Apptio, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sachin Gupta, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2018

By: _____
/s/ Sachin Gupta
Sachin Gupta
President and Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Apptio, Inc. (the "Company") on Form 10-Q for the quarter ended September 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kurt Shintaffer, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2018

By: _____
/s/ Kurt Shintaffer
Kurt Shintaffer
Chief Financial Officer
(Principal Financial and Accounting Officer)

