

MODEL N, INC.  
Form 10-Q  
February 06, 2019

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 December 31, 2018

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 001-35840

Model N, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	77-0528806
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

777 Mariners Island Boulevard, Suite 300	94404
San Mateo, California	
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: (650) 610-4600

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. Yes No

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

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

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

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

As of January 25, 2019, the registrant had 31,542,532 shares of common stock, \$0.00015 par value per share, outstanding.



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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements (Unaudited)

## MODEL N, INC.

## Condensed Consolidated Balance Sheets

(in thousands, except per share data)

(Unaudited)

	As of December 31, 2018	As of September 30, 2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 52,178	\$ 56,704
Accounts receivable, net of allowance for doubtful accounts of \$151 as of December 31, 2018 and \$172 as of September 30, 2018	27,556	28,273
Prepaid expenses	2,494	3,631
Other current assets	2,257	455
Total current assets	84,485	89,063
Property and equipment, net	1,709	2,146
Goodwill	39,283	39,283
Intangible assets, net	33,226	34,597
Other assets	3,582	1,064
Total assets	\$ 162,285	\$ 166,153
Liabilities And Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 3,387	\$ 1,664
Accrued employee compensation	8,608	14,211
Accrued liabilities	3,452	3,182
Deferred revenue, current portion	42,335	52,176
Long term debt, current portion	1,750	1,375
Total current liabilities	59,532	72,608
Long term debt	51,815	52,329
Other long-term liabilities	821	1,182
Total liabilities	112,168	126,119
Commitments and contingencies		
Stockholders' equity:		
Common Stock, \$0.00015 par value; 200,000 shares authorized; 31,535 and 31,444 shares issued and outstanding at December 31, 2018 and September 30, 2018, respectively	5	5
Preferred Stock, \$0.00015 par value; 5,000 shares authorized; no shares issued and outstanding	—	—
Additional paid-in capital	249,053	244,814
Accumulated other comprehensive loss	(1,099	) (1,285 )
Accumulated deficit	(197,842	) (203,500 )
Total stockholders' equity	50,117	40,034
Total liabilities and stockholders' equity	\$ 162,285	\$ 166,153

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



MODEL N, INC.  
Condensed Consolidated Statements of Operations  
(in thousands, except per share data)  
(Unaudited)

	Three Months Ended December 31,	
	2018	2017
Revenues:		
Subscription	\$25,202	\$23,847
Professional services	9,875	15,220
Total revenues	35,077	39,067
Cost of revenues:		
Subscription	8,738	9,615
Professional services	7,829	7,194
Total cost of revenues	16,567	16,809
Gross profit	18,510	22,258
Operating expenses:		
Research and development	7,412	9,068
Sales and marketing	8,052	8,492
General and administrative	6,156	8,731
Total operating expenses	21,620	26,291
Loss from operations	(3,110 )	(4,033 )
Interest expense, net	733	1,423
Other expenses, net	285	125
Loss before income taxes	(4,128 )	(5,581 )
Provision (benefit) for income taxes	598	(324 )
Net loss	\$(4,726 )	\$(5,257 )
Net loss per share attributable to common stockholders:		
Basic and diluted	\$(0.15 )	\$(0.18 )
Weighted average number of shares used in computing net loss per share attributable to common stockholders:		
Basic and diluted	31,488	29,401

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

MODEL N, INC.  
Condensed Consolidated Statements of Comprehensive Loss  
(in thousands)  
(Unaudited)

	Three Months Ended December 31,	
	2018	2017
Net loss	\$(4,726)	\$(5,257)
Other comprehensive income (loss), net:		
Change in foreign currency translation adjustment	186	109
Total comprehensive loss	\$(4,540)	\$(5,148)

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

MODEL N, INC.  
Condensed Consolidated Statements of Cash Flows  
(in thousands)  
(Unaudited)

	Three Months Ended December 31,	
	2018	2017
Cash flows from operating activities:		
Net loss	\$(4,726 )	\$(5,257 )
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,842	2,265
Stock-based compensation	4,203	4,036
Amortization of debt discount and issuance cost	111	236
Amortization of capitalized contract acquisition costs	373	—
Other non-cash charges	(22 )	(491 )
Changes in assets and liabilities, net of acquisition:		
Accounts receivable	162	(13,846 )
Prepaid expenses and other assets	383	363
Deferred cost of implementation services	—	191
Accounts payable	1,836	1,216
Accrued employee compensation	(5,579 )	(5,896 )
Other accrued and long-term liabilities	(471 )	(703 )
Deferred revenue	(2,373 )	8,145
Net cash used in operating activities	(4,261 )	(9,741 )
Cash flows from investing activities:		
Purchases of property and equipment	(141 )	(60 )
Net cash used in investing activities	(141 )	(60 )
Cash flows from financing activities:		
Proceeds from exercise of stock options and issuance of employee stock purchase plan	36	552
Principal payments on loan	(250 )	—
Net cash provided by (used in) financing activities	(214 )	552
Effect of exchange rate changes on cash and cash equivalents	90	15
Net decrease in cash and cash equivalents	(4,526 )	(9,234 )
Cash and cash equivalents		
Beginning of period	56,704	57,558
End of period	\$52,178	\$48,324

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



MODEL N, INC.

Notes to Condensed Consolidated Financial Statements  
(Unaudited)

1. The Company and Significant Accounting Policies and Estimates

Model N, Inc. (referred to herein as "Model N", "we," "us," "our," and "the Company") was incorporated in Delaware on December 14, 1999. The Company is a provider of cloud revenue management solutions for the pharmaceutical, semiconductor and high tech manufacturing. The Company's solutions enable its customers to maximize revenues and reduce revenue compliance risk by transforming their revenue life cycle from a series of tactical, disjointed operations into a strategic end-to-end process, which enables them to manage the strategy and execution of pricing, contracting, incentives and rebates. The Company's corporate headquarters are located in San Mateo, California, with additional offices in the United States, India and Switzerland.

Fiscal Year

The Company's fiscal year ends on September 30. References to fiscal year 2019, for example, refer to the fiscal year ending September 30, 2019.

Basis for Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") and applicable rules and regulations of the Securities and Exchange Commission (SEC) regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. The unaudited condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes included in the Annual Report on Form 10-K for the fiscal year ended September 30, 2018. There have been no changes in the significant accounting policies from those that were disclosed in the audited consolidated financial statements for the fiscal year ended September 30, 2018 included in the Annual Report on Form 10-K, except for changes associated with revenue recognition resulting from the adoption of Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers" (ASC 606) and the addition of a hedging policy.

In the opinion of management, the unaudited interim consolidated financial statements include all the normal recurring adjustments necessary to present fairly the condensed consolidated financial statements. The results of operations for the three months ended December 31, 2018 were not necessarily indicative of the operating results for the full fiscal year 2019 or any future periods.

The Company's condensed consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany transactions and balances have been eliminated upon consolidation.

Change in Presentation

Previously, the Company presented revenue and cost of revenue on two lines: "SaaS and maintenance" and "License and implementation". Historically, the Company's growth was driven by the sale of on-premise solutions. Over the last few years, the Company shifted its focus to selling cloud-based software. As a result of the Company's business model transition from an on-premise to a software-as-a-service model, the Company has updated the presentation in the first quarter of fiscal year 2019 to present the revenue and cost of revenue line items within its Consolidated Statements of Operations with the break-out between two new lines called "Subscription" and "Professional services". Revenues and cost of revenues in prior periods have been reclassified in this filing to conform to the new presentation. This change in presentation does not affect the Company's previously-reported total revenues and total cost of revenues.

Subscription

Subscription revenues primarily include contractual arrangements with customers accessing the Company's cloud-based solutions. Subscription revenues also include revenues associated with maintenance and support and

managed support services. Maintenance and support revenue include post-contract customer support and the right to unspecified software updates and enhancements on a when and if available basis from customers using on-premise solutions. Managed support services revenue includes supporting, managing and administering our software solutions, and providing additional end user support. Term-based licenses for current products with the right to use unspecified future versions of the software and maintenance and support during the coverage period are also included in subscription revenues.

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## Professional services

Professional services revenues primarily include fees generated from implementation, cloud configuration, on-site support and other consulting services. Also included in professional services revenues are other revenues, including revenues related to training and customer-reimbursed expense. It also includes services related to software licenses for our on-premise solutions.

### Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires management to make certain estimates and assumptions that affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenues and expenses during the reporting periods. Significant items subject to such estimates include revenue recognition, legal contingencies, income taxes, stock-based compensation, and valuation of goodwill and intangibles. These estimates and assumptions are based on management's best estimates and judgment. Management regularly evaluates its estimates and assumptions using historical experience and other factors. However, actual results could differ significantly from these estimates.

## Updated Significant Accounting Policies

### Revenue Recognition

The Company derives its revenues primarily from subscription revenues and professional services revenues and applies the following framework to recognize revenue.

- 1 Identification of the contract, or contracts, with a customer
- 2 Identification of the performance obligations in the contract
- 3 Determination the transaction price
- 4 Allocation of the transaction price to the performance obligations in the contract
- 5 Recognition of revenue when, or as, the Company satisfies a performance obligation

The Company enters into contracts with customers that can include various combinations of services which are generally distinct and accounted for as separate performance obligations. As a result, the Company's contracts may contain multiple performance obligations. The Company determines whether the services are distinct based on whether the customer can benefit from the service on its own or together with other resources that are readily available and whether the Company's commitment to transfer the product or service to the customer is separately identifiable from other obligations in the contract. The Company generally considers its cloud-based subscription offerings, maintenance and support, managed service support, professional services and training to be distinct performance obligations. Term-based licenses generally have two performance obligations: software licenses and software maintenance.

The transaction price is determined based on the consideration to which the Company expects to be entitled in exchange for transferring services and products to the customer. Variable consideration (if any) is estimated and included in the transaction price if, in the Company's judgment, it is probable that there will not be a significant future reversal of cumulative revenue under the contract. The Company typically does not offer contractual rights of return or concessions.

For contracts that contain multiple performance obligations, the transaction price is allocated to each performance obligation based on their relative standalone selling price ("SSP"). SSP is estimated for each distinct performance obligation and judgment may be involved in the determination. The Company determines SSP using information that may include market conditions and other observable inputs. The Company evaluates SSP for its performance obligations on a quarterly basis.

Revenue is recognized when control of these services is transferred to our customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for these services. In instances where the timing of revenue recognition differs from the timing of invoicing, the Company has determined that the Company's contracts generally do not include a significant financing component.

Subscription revenue related to cloud-based solutions, maintenance and support and managed service and support revenues are generally recognized ratably over the contractual term of the arrangement beginning on the date that the Company's service is made available to the customer. These arrangements, in general, are committed one to three year terms. For term-based license contracts, the transaction price allocated to the software element is recognized when it is made available to the customer. The transaction price allocated to the related support and updates are recognized ratably over the contract term. Term-based license arrangements may include termination rights that limit the term of the arrangement to a month, quarter or year.

Professional services revenues are generally recognized as the services are rendered for time and materials contracts or on a proportional performance basis for fixed price contracts. The majority of the Company's professional services contracts are on a time and materials basis. Revenue from training and customer-reimbursed expenses is recognized as the Company delivers these services. The Company's implementation projects generally have a term ranging from a few months to twelve months and may be terminated by the customer at any time.

#### Capitalized Contract Acquisition Costs

The Company capitalizes incremental costs incurred to acquire contracts with customers, primarily sales commissions, for which the associated revenue is expected to be recognized in future periods. The Company incurs these costs in connection with both initial contracts and renewals. The costs in connection with initial contracts and renewals are deferred and amortized over an expected customer life of five years and over the renewal term, respectively, which corresponds to the period of benefit to the customer. The Company determined the period of benefit by considering the Company's history of customer relationships, length of customer contracts, technological development and obsolescence and other factors. The current and non-current portion of capitalized contract acquisition costs are included in other current assets and other assets on the Company's Condensed Consolidated Balance Sheets. Amortization expense is included in sales and marketing expenses in the accompanying Condensed Consolidated Statements of Operations.

#### Hedging

##### Cash Flow Hedging—Hedges of Forecasted Foreign Currency Operation Costs

The Company's customers typically pay in U.S. dollars; however, in foreign jurisdictions, the Company's expenses are typically denominated in local currency. The Company may use foreign exchange forward contracts to hedge certain cash flow exposures resulting from changes in these foreign currency exchange rates. These foreign exchange contracts are generally one month to one year in duration.

To receive hedge accounting treatment, all hedging relationships are formally documented at the inception of the hedge, and the hedges must be highly effective in offsetting changes to future cash flows on hedged transactions. The Company records changes in the fair value of these cash flow hedges in accumulated other comprehensive income (loss) in the Condensed Consolidated Balance Sheets, until the forecasted transaction occurs, at which point, the related gain or loss on the cash flow hedge is reclassified to the financial statement line item to which the derivative relates. In the event the underlying forecasted transaction does not occur or it becomes probable that it will not occur, the gain or loss on the related cash flow hedge is also reclassified into earnings from accumulated other comprehensive income (loss). If the Company does not elect hedge accounting, or the contract does not qualify for hedge accounting treatment, the changes in fair value from period to period are recognized immediately in the same financial statement line item to which the derivative relates.

#### Hedge Effectiveness

For foreign currency hedges designated as cash flow hedges, the Company elected to utilize the Critical Terms Method to determine if the hedges are highly effective and thus, eligible for hedge accounting treatment. The

Company evaluates the effectiveness of the foreign exchange contracts on a quarterly basis.

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## New Accounting Pronouncements

## Recently Adopted Accounting Guidance

In May 2014, the Financial Accounting Standards Board ("FASB") issued a new standard, ASU 2014-09, Revenue from Contracts with Customers, as amended, which superseded nearly all existing revenue recognition guidance. Under ASU 2014-09, an entity is required to recognize revenue upon transfer of promised goods or services to customers in an amount that reflects the expected consideration received in exchange for those goods or services. ASC 606 requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments.

On October 1, 2018, the Company adopted ASC 606 using the modified retrospective method applied to those contracts which were not completed as of October 1, 2018, and recorded adjustments to decrease the accumulated deficit by approximately \$10.4 million. Results for reporting periods beginning after October 1, 2018 are presented under ASC 606. Prior period amounts are not adjusted and continue to be reported under accounting standards in effect for those periods.

ASC 606 primarily impacted the Company's revenue recognition for on-premise solutions, which contained deliverables within the scope of ASC 985-605, Software-Revenue Recognition, by eliminating the requirement to have VSOE for undelivered elements, which accelerated the timing of revenue recognition. In addition, ASC 606 impacted the Company's expenses as the guidance required incremental contract acquisition costs (such as sales commissions) for customer contracts to be capitalized and amortized on a systematic basis that is consistent with the pattern of transfer to the customer of the goods or services to which the capitalized cost relates, rather than expense them immediately as under the previous standard.

The cumulative effect of the changes made to the Company's Condensed Consolidated Balance Sheets as of October 1, 2018 from the adoption of ASC 606 was as follows:

Balance Sheet (in thousands)	Balance at September 30, 2018	Cumulative effect adjustments due to the adoption of ASC 606	Balance at October 1, 2018
<b>Assets</b>			
Accounts receivables, net	\$28,273	\$ (579 )	\$27,694
Other current assets	455	1,668	2,123
Other assets	1,064	2,142	3,206
<b>Liabilities</b>			
Accrued liabilities	3,182	600	3,782
Deferred revenue, current portion	52,176	(7,753 )	44,423
<b>Stockholders' Equity</b>			
Accumulated deficit	\$(203,500)	\$ 10,384	\$(193,116)

The cumulative effect adjustment on accounts receivable, net in the Company's Condensed Consolidated Balance Sheets is related to unbilled accounts receivable for which revenue is recognized in advance of billings but the Company does not have the unconditional right to the consideration. Under ASC 606, these amounts are reclassified from accounts receivable, net to other current assets. The cumulative effect adjustment on other current assets and other assets line items in the Condensed Consolidated Balance Sheets is caused by the requirement in ASC 606 to capitalize incremental costs incurred to acquire contracts with customers. In prior periods, these costs were expensed as incurred under ASC 605. The cumulative effect adjustment included in accrued liabilities in the Company's Condensed Consolidated Balance Sheets is related to reclassifying refundable amounts associated with customer

contracts from deferred revenue under ASC 606. The cumulative effect adjustment on deferred revenue is primarily driven by ASC 606 which accelerated the timing of revenue recognition by eliminating the requirement to have VSOE for undelivered elements.



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The following table summarize the effects of adopting ASC 606 on the Condensed Consolidated Balance Sheets as of December 31, 2018:

Balance Sheet (in thousands)	As Reported	Adjustments	As if presented under ASC 605
<b>Assets</b>			
Accounts receivables, net	\$27,556	\$ 603	\$28,159
Other current assets	2,257	(1,874 )	383
Other assets	3,582	(2,504 )	1,078
<b>Liabilities</b>			
Accrued liabilities	3,452	(360 )	3,092
Deferred revenue, current portion	42,335	7,330	49,665
<b>Stockholders' Equity</b>			
Accumulated deficit	(197,842)	10,745	(187,097)

The following table summarize the effects of adopting ASC 606 on the Condensed Consolidated Statements of Operations for the three months period ended December 31, 2018:

Statements of Operations (in thousands, except for EPS)	As Reported	Adjustments	As if presented under ASC 605
<b>Revenues</b>			
Subscription	\$25,202	\$ (49 )	\$25,153
Professional services	9,875	232	10,107
Total revenues	35,077	183	35,260
<b>Cost of professional services</b>			
Sales and marketing	7,829	47	7,876
Total operating expenses	21,620	497	22,117
Loss from operations	(3,110 )	(361 )	(3,471 )
Loss before income taxes	(4,128 )	(361 )	(4,489 )
Net loss	(4,726 )	(361 )	(5,087 )
Basic and diluted EPS	(0.15 )	(0.01 )	(0.16 )

The impact to the Condensed Consolidated Statements of Cash Flows for the three months ended December 31, 2018 as a result of adopting ASC 606 was not significant.

#### Other Recently Adopted Accounting Guidance

On August 28, 2017, the FASB issued ASU No. 2017-12, Derivatives and Hedging, requiring expanded hedge accounting for both non-financial and financial risk components and refining the measurement of hedge results to better reflect an entity's hedging strategies. The updated standard also amends the presentation and disclosure requirements and changes how entities assess hedge effectiveness. The effective date of the new standard for public companies is for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition with a cumulative effect adjustment recorded to opening retained earnings as of the initial adoption date. The Company early adopted this guidance beginning in the first quarter of fiscal year 2019. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements and related disclosures.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230), amended the existing accounting standards for the statement of cash flows. The amendments provide guidance on how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The Company adopted this

guidance beginning in the first quarter of fiscal year 2019 on a retrospective basis. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805): Clarifying the definition of a business. The amendments in this guidance change the definition of a business to assist with evaluating when a set of transferred assets and activities is a business. The Company adopted this guidance beginning in the first quarter of fiscal year 2019 on a prospective basis. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In November 2016, the FASB issued ASU 2016-18, Restricted Cash (Topic 230): Clarifying the classification and presentation of restricted cash in the statement of cash flows. The standard requires that restricted cash and restricted cash equivalents are included in the cash and cash equivalents balance in the statement of cash flows. Further, reconciliation between the balance sheet and statement of cash flows is required when the balance sheet includes more than one line item for cash, cash equivalents, restricted cash, and restricted cash equivalents. Therefore, transfers between these balances should no longer be presented as a cash flow activity. The Company adopted this guidance beginning in the first quarter of fiscal year 2019. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, Compensation-Stock Compensation (Topic 718): Providing clarification on when modification accounting should be used for changes to the terms or conditions of a share-based payment award. This ASU does not change the accounting for modifications but clarifies that modification accounting guidance should only be applied if there is a change to the value, vesting conditions or award classification and would not be required if the changes are considered non-substantive. The amendments of this ASU are effective for reporting periods beginning after December 15, 2017, with early adoption permitted. The Company adopted this guidance beginning in the first quarter of fiscal year 2019. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

#### Recently Issued Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), guidance on the recognition and measurement of leases. Under the new guidance, lessees are required to recognize a lease liability, which represents the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet for most leases. The guidance retains the current accounting for lessors and does not make significant changes to the recognition, measurement, and presentation of expenses and cash flows by a lessee. Enhanced disclosures will also be required to give financial statement users the ability to assess the amount, timing and uncertainty of cash flows arising from leases. The guidance will be effective for the Company beginning in the first quarter of fiscal year 2020 and early adoption is permitted. The Company expects to adopt this guidance on a modified retrospective basis in the first quarter of fiscal year 2020. The Company is currently evaluating the impact this guidance will have on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. This new accounting standard update simplifies the measurement of goodwill by eliminating the step two impairment test. Step two measures a goodwill impairment loss by comparing the implied fair value of goodwill with the carrying amount of that goodwill. The new guidance requires a comparison of the Company's fair value of a reporting unit with the carrying amount and the Company is required to recognize an impairment charge for the amount by which the carrying amount exceeds the fair value. Additionally, the Company should consider income tax effects from any tax deductible goodwill on the carrying amount when measuring the goodwill impairment loss, if applicable. The new guidance becomes effective for goodwill impairment tests in fiscal years beginning after December 15, 2019, though early adoption is permitted. The Company is currently evaluating the impact this standard will have on its consolidated financial statements.

## 2. Revenues from Contracts with Customers

### Revenue Recognition

The Company derives its revenues primarily from subscription revenues and professional services revenues. See Note 1, The Company and Significant Accounting Policies and Estimates, for additional information.  
Disaggregation of Revenues

See Note 12, Geographic Information, for information on revenue by geography.

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## Customer Contract Balances

The timing of revenue recognition, billings and cash collections result in accounts receivables and deferred revenue.

(in thousands)	As of October 1, 2018 <sup>(1)</sup>	As of December 31, 2018	Change
Accounts receivable, net	27,694	27,556	(138 )
Contract asset	579	603	24
Deferred revenue	44,854	42,480	(2,374)
Capitalized contract acquisition costs	3,324	3,821	497

<sup>(1)</sup> Includes cumulative effect adjustments made to these accounts on October 1, 2018 due to the adoption of ASC 606.

## Accounts Receivable

Accounts receivable represents the Company's right to consideration that is unconditional, net of allowances for doubtful accounts. The allowance for doubtful accounts is based on management's assessment of the collectability of accounts.

## Contract Asset

Contract asset represents revenue that has been recognized for satisfied performance obligation, but for which the Company does not have an unconditional right to consideration.

## Deferred Revenue

Deferred revenue, which is a contract liability, consists of amounts that have been invoiced and for which the Company has the right to bill, but that have not been recognized as revenue because the related goods or services have not been transferred.

The non-current portion of deferred revenue is included in other long-term liabilities in the Condensed Consolidated Balance Sheets. During the three months ended December 31, 2018, the Company recognized revenue of \$18.0 million that was included in the deferred revenue balances at the beginning of the period.

## Capitalized Contract Acquisition Costs

In connection with the adoption of ASC 606, the Company began to capitalize incremental costs incurred to acquire contracts with customers. See Note 1, The Company and Significant Accounting Policies and Estimates, for additional information. Capitalized contract acquisition costs were \$3.8 million and \$3.3 million as of December 31, 2018 and October 1, 2018, respectively. As of December 31, 2018, the current and non-current portion of capitalized contract acquisition costs are \$1.3 million and \$2.5 million, respectively. The Company amortized \$0.4 million of contract costs during the three months ended December 31, 2018.

For the three months ended December 31, 2018, no impairment loss related to customer contract balances was recognized in the Condensed Consolidated Statement of Operations.

## Customer Deposits

Customer deposits primarily relate to payments received from customers which could be refundable pursuant to the terms of the arrangement. These amounts are included in accrued liabilities on the Condensed Consolidated Balance

Sheets.

Standard payment terms to customers generally range from thirty to ninety days; however, payment terms and conditions in our customer contracts may vary. In some cases, customers prepay for subscription and services in advance of the delivery; in other cases, payment is due as services are performed or in arrears following the delivery.

#### Performance Obligations

Remaining performance obligations represent non-cancelable contracted revenue that has not yet been recognized, which includes deferred revenue and amounts that will be invoiced and recognized as revenue in future periods. The aggregate amount of the transaction price allocated to performance obligations either not satisfied or partially unsatisfied was approximately \$81.6 million as of December 31, 2018, approximately 67% of which we expect to recognize as revenue over the next 12 months and the remainder thereafter.

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## 3. Intangible Assets

	Estimated Useful Life (in Years)	As of December 31, 2018		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
(in thousands)				
Intangible Assets:				
Developed technology	5-6	\$12,083	\$ (6,924 )	\$ 5,159
Backlog	5	280	(280 )	—
Customer relationships	3-10	36,599	(8,532 )	28,067
Total		\$48,962	\$ (15,736 )	\$ 33,226

	Estimated Useful Life (in Years)	As of September 30, 2018		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
(in thousands)				
Intangible Assets:				
Developed technology	5-6	\$12,083	\$ (6,448 )	\$ 5,635
Backlog	5	280	(275 )	5
Customer relationships	3-10	36,599	(7,642 )	28,957
Total		\$48,962	\$ (14,365 )	\$ 34,597

The Company recorded amortization expense related to the acquired intangible assets of \$1.4 million and \$1.4 million for the three months ended December 31, 2018 and 2017, respectively.

Estimated future amortization expense for the intangible assets as of December 31, 2018 is as follows (in thousands):

2019 (remaining 9 months)	\$4,095
2020	4,751
2021	4,687
2022	4,687
2023 and thereafter	15,006
Total future amortization	\$33,226

## 4. Debt

## Term Loan

In connection with the Revitas acquisition, on January 5, 2017, the Company entered into a Financing Agreement ("Financing Agreement") by and among the Company, the Subsidiaries, as guarantors, Crystal Financial SPV, LLC and TC Lending, LLC, pursuant to which the lenders extended a term loan to the Company in an aggregate principal amount of \$50.0 million.

In May 2018, this term loan was extinguished and repaid in full in part from the proceeds of the refinancing with Wells Fargo Bank, N. A. (Wells Fargo), as discussed below. The Company was in compliance with all of the covenants described in the Financing Agreements through the payoff in May 2018.

## Term Loan – Wells Fargo

On May 4, 2018, the Company and certain of its subsidiaries entered into a Credit Agreement ("Credit Agreement") by and among the Company, Wells Fargo, as Administrative Agent, and the lenders party thereto ("Lenders"), pursuant to which the Lenders extended a term loan to the Company in an aggregate principal amount of \$50.0 million and agreed to establish an additional revolving line of credit up to an aggregate principal amount of \$5.0 million. In part from the proceeds of this refinancing, the Company repaid in full the existing term loan under the Financing

Agreement dated January 5, 2017.

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The term loan will mature on May 4, 2023. The Company is required to repay the principal of the term loan in quarterly installments follows:

\$250,000 on September 30, 2018 and the last day of each fiscal quarter thereafter up to June 30, 2019;  
 \$625,000 on September 30, 2019 and the last day of each fiscal quarter thereafter up to June 30, 2020;  
 \$937,500 on September 30, 2020 and the last day of each fiscal quarter thereafter up to March 31, 2023; and the remaining principal amount at maturity.

The loans will bear interest, at the Company's option, at (i) the Base Rate (as defined in the Credit Agreement) plus applicable margin or (ii) the LIBOR Rate (as defined in the Credit Agreement) plus applicable margin. LIBOR interest is payable quarterly and margin varies based upon our leverage ratio. See the table below of applicable margin rates:

Level	Leverage Ratio Calculation	Applicable Margin Relative to Base Rate	Applicable Margin Relative to LIBOR Rate
I	<2.0:1.0	2.0%	3.0%
II	>=2.0:1.0 but less than 3.5:1.0	2.5%	3.5%
III	>=3.5:1.0	3.5%	4.5%

For the quarter ended December 31, 2018, the Company's interest rate is at the LIBOR rate plus 4.50%.

Certain United States subsidiaries of the Company ("Guarantors") and the Company have entered into a guaranty and security agreement pursuant to which the Guarantors have agreed to guarantee the Company's payment of its obligations under the Credit Agreement, and pursuant to which the Company's and Guarantors' obligations under the Credit Agreement and the guaranty and security agreement are secured by substantially all of their assets.

The Company may voluntarily prepay the term loan, with any such prepayment applied against the remaining installments of principal of the term loan on a pro rata basis; provided, that at the election of the Company, one such prepayment made prior to January 2, 2019 in an amount not to exceed \$5.0 million may be applied against the remaining installments of principal in the direct order of maturity. The Company is required to repay the term loan with proceeds from the sale of assets, the receipt of certain insurance proceeds, litigation proceeds or indemnity payments, or the incurrence of debt (in each case subject to certain exceptions). The Company made approximately \$4.8 million of principal payment on January 2, 2019.

The Credit Agreement requires the Company and its subsidiaries to maintain certain financial covenants, including maintaining consolidated liquidity (cash in the United States plus revolving credit line availability) of at least \$15.0 million, minimum levels of maintenance and subscription fee revenue and, if liquidity is less than \$30.0 million for 90 consecutive days, leverage ratio not greater than 3.5 to 1.00. The Credit Agreement also requires the Company and Guarantors to maintain certain non-financial covenants, including covenants that restrict their ability to dispose of assets, change the Company's organizational documents, merge with or acquire (or make investments in ) other entities, or incur other indebtedness or liens. The Credit Agreement also provides for customary events of default, including failure to pay amounts due or to comply with covenants, default on other indebtedness, or a change of control with respect to the Company.

The Company was in compliance with the financial covenant requirements as of December 31, 2018.

#### Promissory Notes

Also in connection with the Revitas acquisition, the Company incurred \$10.0 million in debt in the form of two promissory notes with the sellers, one which matured on July 5, 2018 and the other which will mature on January 5, 2020. The fair value of the promissory notes of \$8.6 million was determined based on discounted future cash flows at a 9.96% interest rate, which represents an arm's length interest rate. The Company paid the first promissory note of \$5.0 million on July 5, 2018. The remaining promissory note bears interest at the rate of 3.0% per annum, and is subject to a right of set-off as partial security for the indemnification obligations of the target's stockholders under the Merger Agreement. The remaining promissory note is subordinate to the term loan with Wells Fargo.



As of December 31, 2018, the term loan with Wells Fargo and the promissory note consisted of the following:

	Amount (in thousands)
Principal	\$ 54,500
Unamortized debt discount and issuance costs	(935 )
Net carrying amount	\$ 53,565

As of December 31, 2018, the carrying value of the debt approximates fair value. The Company classified the debt under Level 2 of the fair value measurement hierarchy as the instruments are not actively traded.

The Company incurred approximately \$0.7 million in transaction costs in connection with the term loan with Wells Fargo in fiscal year 2018. These costs are included as part of the Company's debt. The effective interest rate for the term loan with Wells Fargo is 7.20% and the 36 month promissory note is 9.89%.

The future scheduled principal payments for the term loan with Wells Fargo and promissory notes as of December 31, 2018 were as follows (in thousands).

Fiscal Year	
2019 (remaining 9 months)	\$1,125
2020	7,813
2021	3,750
2022	3,750
2023	38,062
Total	\$54,500

On January 2, 2019, the Company prepaid approximately \$4.8 million of principal payment of Wells Fargo's term loan, which includes the remaining principal payments due in fiscal year 2019.

## 5. Derivative Instruments and Hedging

The Company enters into foreign exchange contracts to hedge a portion of our forecasted foreign currency denominated expenses in the normal course of business. The Company does not enter into foreign exchange forward contracts for speculative purposes. These hedging contracts reduce, but do not entirely eliminate, the impact of adverse foreign exchange rate movements. The Company does not use any of the derivative instruments for trading purposes.

The Company entered into foreign currency forward contracts on December 24, 2018. The impact of the hedging activities was immaterial for the period ended December 31, 2018. For the three months ended December 31, 2018, there were no net gains or losses recognized relating to hedges of forecasted transactions that did not occur.

### Notional Amounts of Derivative Contracts

Derivative transactions are measured in terms of the notional amount but this amount is not recorded on the balance sheet and is not, when viewed in isolation, a meaningful measure of the risk profile of the instruments. The notional amount is generally not exchanged, but is used only as the basis on which the value of foreign exchange payments under these contracts are determined. As of December 31, 2018, the notional amounts of the Company's outstanding foreign currency forward contracts designated as cash flow hedges is approximately \$5.0 million.

## 6. Fair Value of Financial Instruments

The financial instruments of the Company consist primarily of cash and cash equivalents, accounts receivable, accounts payable, debt and certain accrued liabilities. The Company regularly reviews its financial instruments portfolio to identify and evaluate such instruments that have indications of possible impairment. When there is no readily available market data, fair value estimates are made by the Company, which involves some level of management estimation and judgment and may not necessarily represent the amounts that could be realized in a current or future sale of these assets.

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The current accounting guidance for fair value instruments defines a three-level valuation hierarchy for disclosures as follows:

Level 1—Unadjusted quoted prices in active markets for identical assets or liabilities;

Level 2—Input other than quoted prices included in Level 1 that are observable, unadjusted quoted prices in markets that are not active, or other inputs for similar assets and liabilities that are observable or can be corroborated by observable market data; and

Level 3—Unobservable inputs that are supported by little or no market activity, which requires the Company to develop its own models and involves some level of management estimation and judgment.

The Company's Level 1 assets consist of cash equivalents. These instruments are classified within Level 1 of the fair value hierarchy because they are valued based on quoted market prices in active markets.

The table below sets forth the Company's cash equivalents as of December 31, 2018 and September 30, 2018, which are measured at fair value on a recurring basis by level within the fair value hierarchy. The assets are classified based on the lowest level of input that is significant to the fair value measurement.

	Level 1	Level 2	Level 3	Total
	(in thousands)			
As of December 31, 2018				
Assets:				
Cash equivalents	\$42,079	\$	—\$	—\$42,079
Total	\$42,079	\$	—\$	—\$42,079

As of September 30, 2018

Assets:

Cash equivalents	\$43,741	\$	—\$	—\$43,741
Total	\$43,741	\$	—\$	—\$43,741

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The Company's cash equivalents as of December 31, 2018 and September 30, 2018 consisted of money market funds with original maturity dates of less than three months from the date of their respective purchase. Cash equivalents are classified as Level 1. The fair value of the Company's money market funds approximated amortized cost and, as such, there were no unrealized gains or losses on money market funds as of December 31, 2018 and September 30, 2018. The Company's financial instruments not measured at fair value on a recurring basis include cash, accounts receivable, accounts payable and accrued liabilities, and are reflected in the financial statements at cost and approximate their fair value due to their short-term nature.

The carrying value of the term loan with Wells Fargo approximates fair value since the term loan bears interest at rates that fluctuate with the changes in the Base Rate or the LIBOR Rate as selected by the Company. The carrying value of promissory note approximates its fair value as of December 31, 2018.

#### 7. Stock-based Compensation

As of December 31, 2018, 4.3 million shares were available for future stock awards under the Company's equity plans and any additional releases resulting from an over-achievement relating to performance-based restricted stock units. There were no stock options granted during the three months ended December 31, 2018 and 2017, respectively.

The following table summarizes the stock option activity and related information under all equity plans:

	Number of Shares (thousands)	Weighted Average Exercised Price	Weighted Average Remaining Contract Term (in Years)	Aggregate Intrinsic Value (in thousands)
Balance at September 30, 2018	227	\$ 7.64	2.94	\$ 1,861
Granted	—	—	—	
Exercised	(7 )	5.45	—	
Forfeited	—	—	—	
Expired	(2 )	13.50	—	
Balance at December 31, 2018	218	\$ 7.65	2.77	\$ 1,223
Options exercisable as of December 31, 2018	218	\$ 7.65	2.77	\$ 1,223
Options vested and expected to vest as of December 31, 2018	218	\$ 7.65	2.77	\$ 1,223

The following table summarizes the Company's restricted stock unit activity which includes performance-based restricted stock units under all equity plans:

	Restricted Stock Units Outstanding (in thousands)	Weighted Average Grant Date Fair Value
Balance at September 30, 2018	2,313	\$ 15.78
Granted	990	13.73
Released	(84 )	15.19
Forfeited	(56 )	12.97
Balance at December 31, 2018	3,163	\$ 15.20



Stock-based compensation recorded in the Condensed Consolidated Statements of Operations is as follows:

	Three Months Ended December 31, 2018 2017 (in thousands)	
Cost of revenues:		
Subscription	\$460	\$251
Professional services	479	319
Total stock-based compensation in cost of revenues	939	570
Operating expenses:		
Research and development	764	657
Sales and marketing	1,145	871
General and administrative	1,355	1,938
Total stock-based compensation in operating expenses	3,264	3,466
Total stock-based compensation	\$4,203	\$4,036



## 8. Stockholders' Equity

The components of stockholders' equity as of December 31, 2018 and 2017, and changes during the three months ended December 31, 2018 and 2017 were as follows (\$ in thousands, except share data):

	Common Stock		Additional	Accumulated	Accumulated	Total
	Shares	Amount	Paid-In Capital	Other Comprehensive Loss	Deficit	Stockholders' Equity
Balance at September 30, 2018	31,444	\$ 5	\$ 244,814	\$ (1,285 )	\$ (203,500 )	\$ 40,034
Cumulative effect of a change in accounting principal	—	—	—	—	10,384	10,384
Issuance of common stock upon exercise of stock options	7	—	36	—	—	36
Issuance of common stock upon release of restricted stock units	84	—	—	—	—	—
Stock-based compensation	—	—	4,203	—	—	4,203
Other comprehensive loss	—	—	—	186	—	186
Net loss	—	—	—	—	(4,726 )	(4,726 )
Balance at December 31, 2018	31,535	\$ 5	\$ 249,053	\$ (1,099 )	\$ (197,842 )	\$ 50,117

	Common Stock		Additional	Accumulated	Accumulated	Total
	Shares	Amount	Paid-In Capital	Other Comprehensive Loss	Deficit	Stockholders' Equity
Balance at September 30, 2017	29,323	\$ 4	\$ 217,052	\$ (502 )	\$ (175,293 )	\$ 41,261
Issuance of common stock upon exercise of stock options	62	—	551	—	—	551
Issuance of common stock upon release of restricted stock units	89	—	—	—	—	—
Stock-based compensation	—	—	4,036	—	—	4,036
Other comprehensive loss	—	—	—	109	—	109
Net loss	—	—	—	—	(5,257 )	(5,257 )
Balance at December 31, 2017	29,474	\$ 4	\$ 221,639	\$ (393 )	\$ (180,550 )	\$ 40,700

## 9. Income Taxes

On December 22, 2017, tax reform legislation known as the Tax Cuts and Jobs Act (the "Tax Legislation") was enacted in the United States (U.S.). The Tax Legislation significantly revised U.S. corporate income taxes by, among other things, lowering the corporate income tax rate to 21%, implementing a modified territorial tax system and imposing a one-time repatriation tax on deemed repatriated earnings and profits of U.S.-owned foreign subsidiaries (the "Toll Charge"), and limiting the deductibility of certain expenses, such as interest expense. As a fiscal-year taxpayer, certain provisions of the Tax Legislation impacted the Company in fiscal year 2018, including the change in the corporate income tax rate and the Toll Charge, while other provisions were effective starting at the beginning of fiscal year 2019.

On December 22, 2017, the SEC issued Staff Accounting Bulletin No.118 ("SAB 118"), which addresses how a company recognizes provisional estimates when a company does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete its accounting for the effect of the changes in the Tax Legislation. The measurement period ends when a company has obtained, prepared, and analyzed

the information necessary to finalize its accounting, but cannot extend beyond one year. As of December 31, 2018, the measurement period ended and there was no adjustment made to provisional estimates under SAB 118.

Prior to the first quarter of fiscal year 2019, the Company's provision for income taxes did not include provisions for foreign withholding taxes associated with the repatriation of undistributed earnings of certain foreign subsidiaries that the Company intends to reinvest indefinitely. The current Tax Legislation generally allows companies to make distributions of non-U.S. earnings to the U.S. without incurring additional federal income tax. As a result, the Company expects to repatriate future foreign earnings in certain foreign jurisdictions over time. The Company recorded a deferred tax liability for the additional non-U.S. taxes that are expected to be incurred related to the repatriation of these earnings. During the period ended December 31, 2018, the Company repatriated \$2.5 million of foreign subsidiary earnings to the U.S. (in the form of cash) and paid foreign withholding taxes of \$0.5 million. The Company recorded an income tax (benefit) expense of \$0.6 million and \$(0.3) million, representing effective income tax rates of 14.5% and (5.8)%, for the three months ended December 31, 2018 and 2017, respectively. The income tax expense for the three months ended December 31, 2018 is primarily related to the foreign withholding taxes on dividend distributions, state minimum taxes and foreign taxes on our profitable foreign operations. The income tax benefit for the three months ended December 31, 2017 is primarily due to a discrete tax benefit recorded as a result of reductions in deferred tax liabilities from the reduced corporate tax rate and valuation allowance release. This is in addition to a reversal of certain foreign unrecognized tax benefits. The Company's effective income tax rates during these periods differ from the Company's federal statutory rate of 21%, primarily due to permanent differences for foreign withholding taxes related to the repatriation, global intangible low-taxed income ("GILTI"), stock-based compensation and the impact of state income taxes and foreign tax rate differences. The Company elected to record GILTI as a period cost. The Company realized no benefit for current period losses due to maintaining a full valuation allowance against the U.S. and foreign net deferred tax assets.

## 10. Net Loss per Share

The following table sets forth the computation of the Company's basic and diluted net loss per share attributable to common stockholders during the periods presented:

	Three Months Ended December 31, 2018    2017 (in thousands, except per share data)	
Numerator:		
Basic and diluted:		
Net loss attributable to common stockholders	\$ (4,726)	\$ (5,257)
Denominator:		
Basic and diluted:		
Weighted Average Shares Used in Computing Net Loss per Share Attributable to Common Stockholders	31,488	29,401
Net Loss per Share Attributable to Common Stockholders:		
Basic and diluted	\$ (0.15 )	\$ (0.18 )

The following shares of common stock equivalents were excluded from the computation of diluted net loss per share attributable to common stockholders as the effect would have been anti-dilutive:

	Three Months Ended December 31, 2018    2017 (in thousands)	
Stock options	106	208
Performance-based restricted stock units and restricted stock units	1,565	1,398

## 11. Litigation and Contingencies

## Legal Proceedings

We are not currently a party to any pending material legal proceedings. From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputational harm and other factors.

## 12. Geographic Information

The Company has one operating segment with one business activity—developing and monetizing revenue management solutions.

## Revenues

Revenues from customers outside of the United States were 17% and 13% of total revenues for the three months ended December 31, 2018 and 2017, respectively. However, no single jurisdiction outside of the United States represented more than 10% of total revenues.

Long-Lived Assets

The following table sets forth the Company's property and equipment, net by geographic region:

	As of December 2018	As of <del>September</del> September 30, 2018
	(in thousands)	
United States	\$1,432	\$ 1,809
India	277	337
Total property and equipment, net	\$1,709	\$ 2,146

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

### Forward-Looking Statements

This report contains forward-looking statements regarding future events and our future results that are subject to the safe harbors created under the Securities Act of 1933, as amended (Securities Act) and the Securities Exchange Act of 1934, as amended (Exchange Act). All statements other than statements of historical facts are statements that could be deemed forward-looking statements. These statements are based on current expectations, estimates, forecasts and projections about the industries in which we operate and the beliefs and assumptions of our management. Words such as "anticipates," "goals," "plans," "believes," "seeks," "estimates," "continues," "may," "will," variations of such words and similar expressions are intended to identify such forward-looking statements. In addition, any statements that refer to projections of our future financial performance, our anticipated growth and trends in our businesses, and other characterizations of future events or circumstances are forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Forward-looking statements are based only on our current expectations and projections and are subject to risks, uncertainties, and assumptions that are difficult to predict, including those identified below under "Part II, Item 1A. Risk Factors," and elsewhere in this report. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. We undertake no obligation to revise or update any forward-looking statements for any reason.

As used in this report, the terms "we," "us," "our," and "the Company" mean Model N, Inc. and its subsidiaries unless the context indicates otherwise.

### Overview

We are a leader in Revenue Management solutions for life sciences and technology companies. Driving mission-critical business processes such as configure, price and quote (CPQ), contract and rebate management, business intelligence, and regulatory compliance, our solutions transform the revenue lifecycle from a series of disjointed operations into a strategic end-to-end process. With deep industry expertise, we support the complex business needs of the world's leading brands in life sciences, technology and manufacturing across more than 120 countries.

Model N Revenue Cloud transforms the revenue lifecycle into a strategic, end-to-end process aligned across the enterprise. Our industry specific solution suites – Revenue Cloud for Pharma, Revenue Cloud for Med Tech, Revenue Cloud for Semiconductors and High Tech Manufacturing – offer a range of solutions from individual applications to complete suites. Deployments may vary from specific divisions or territories to enterprise-wide implementations. In addition to industry specific clouds, Revenue Cloud provides a broad set of cloud applications for a variety of industries.

Our solutions are delivered via distinct cloud-based offerings:

- Revenue Clouds for Pharma and Med Tech – help life science companies optimize revenue throughout the commercialization process and reduces revenue leakage, while adhering to government regulations.

- Revenue Clouds for Semiconductors and High Tech Manufacturing – enable customers to modernize their sales processes by adopting a strategic approach to manage the revenue lifecycle by planned revenue.

We derive revenues primarily from the sale of subscriptions to our cloud-based solutions, as well as subscriptions for maintenance and support and managed support services related to on-premise solutions. We price our solutions based on a number of factors, including revenues under management and number of users. Subscription revenues are recognized ratably over the support period. We also derive revenues from selling professional services related to past sales of perpetual licenses and implementation, and professional services associated with our cloud-based solutions. The actual timing of revenue recognition may vary based on our customers' implementation requirements and availability of our services personnel.

We market and sell our solutions to customers in the life sciences and technology industries. While we generate the substantial majority of our revenues from companies in the life sciences industry, we have also grown our base of technology customers. Historically, our growth was driven by the sale of on-premise solutions. Over the last few

years, we shifted our focus to selling cloud-based software and in 2017, we started transitioning customers with on-premise software to cloud-based software.



For the three months ended December 31, 2018 and 2017, our total revenues were \$35.1 million and \$39.1 million respectively, representing a year-over-year decrease of approximately 10%, primarily due to a decrease of implementation revenues generated from the sale of software licenses for our on-premise solutions as we no longer sell perpetual licenses given that our business model shifted towards our cloud-based solutions. The decrease in total revenue was partially offset by an increase in our subscription revenue due to improvements in sales execution. It is also inclusive of the impact of the adoption of ASC 606 on October 1, 2018.

#### Key Business Metric

In addition to the measures of financial performance presented in our Condensed Consolidated Financial Statements, we use adjusted EBITDA to evaluate and manage our business. We use this key metric internally to manage our business, and we believe it is useful for investors to compare key financial data from various periods. See “Adjusted EBITDA” below.

#### Key Components of Results of Operations

##### Revenues

Revenues are comprised of subscription revenues and professional services revenues.

##### Subscription

Subscription revenues primarily include contractual arrangements with customers accessing the Company's cloud-based solutions. These arrangements, on average, are for committed three year terms. Included in subscription revenues are revenues associated with maintenance and support and managed support services. Maintenance and support revenue include post-contract customer support and the right to unspecified software updates and enhancements on a when and if available basis from customers using on-premise solutions. Managed support services revenue includes supporting, managing and administering our software solutions, and providing additional end user support. Subscription revenue is generally recognized ratably over the contractual term of the arrangement beginning on the date that the Company's service is made available to the customer. The software-as-a-service (SaaS) model is the primary way we sell to our customers in our vertical markets. Accordingly, we expect that subscription revenue for fiscal year 2019 will be higher as a percentage of total revenues than fiscal year 2018 as we continue to acquire new SaaS customers and expand our SaaS offerings within our existing customers.

##### Professional Services

Professional services primarily include fees generated from implementation, cloud configuration, on-site support and other consulting services. Also included in professional services revenues are other revenues, including revenues related to training and customer-reimbursed expense. It also includes services related to software licenses for our on-premise solutions. Professional services revenues are generally recognized as the services are rendered for time and materials contracts or on a proportional performance basis for fixed price contracts. The majority of the Company's professional services contracts are on a time and materials basis. The revenue from training and customer-reimbursed expenses is recognized as we deliver these services. We expect our professional revenue for the fiscal year 2019 to be lower both in absolute dollars and as a percentage of total revenue from those recorded in the fiscal year ended on September 30, 2018, as our implementation revenues related to license will significantly decrease since we ceased selling perpetual licenses in fiscal year 2018.

##### Cost of Revenues

##### Subscription

Cost of subscription revenues includes costs related to our cloud operations, maintenance and support for our on-premise solutions and managed support services. Cost of subscription revenues primarily consists of personnel-related costs including salary, bonus, stock-based compensation, royalties, facility expense, amortization, depreciation, reimbursable expenses, third-party contractors and cloud hosting costs. We believe that cost of subscription revenues will continue to increase in absolute dollars as we continue to sell more cloud-based solutions.

#### Professional Services

Cost of professional revenues includes costs related to the set-up of our cloud-based solutions, services for on-premise solutions, training and customer-reimbursed expense. Cost of professional revenues primarily consists of personnel-related costs including salary, bonus, stock-based compensation, third-party contractors, and other-related expenses. Cost of professional services revenues may vary from period to period depending on a number of factors, including the amount of implementation services required to deploy our solutions and the level of involvement of third-party contractors providing implementation services. We believe that the cost of professional services revenues will continue to decrease in absolute dollars since we no longer sell perpetual licenses.

#### Operating Expenses

##### Research and Development

Our research and development expenses consist primarily of personnel-related costs including salary, bonus, stock-based compensation and third-party contractors. Our software development costs are generally expensed as incurred. In the past, we capitalized development costs in connection with the development of new cloud-based services. We expect our research and development expenses to be marginally lower in fiscal year 2019 from those recorded in fiscal year 2018.

##### Sales and Marketing

Our sales and marketing expenses consist primarily of personnel-related costs including salary, bonus, commissions, stock-based compensation, amortization of intangibles, travel-related expenses and marketing programs. We expect our sales and marketing expenses to be flat to marginally lower in fiscal year 2019 from those recorded in fiscal year 2018.

##### General and Administrative

Our general and administrative expenses consist primarily of personnel-related costs including salary, bonus, stock-based compensation, audit and legal fees as well as third-party contractors, facilities, costs associated with corporate transactions, and travel-related expenses. We expect our general and administrative expenses to be substantively lower in fiscal year 2019 from those recorded in fiscal year 2018. The general and administrative expenses recorded in fiscal year 2018 are primarily related to the stock issued in connection with our former Chief Executive Officer's departure in the same year.

#### Change in Presentation

Previously, we presented revenue and cost of revenue on two lines: "SaaS and maintenance" and "License and implementation". Historically, our growth was driven by the sale of on-premise solutions. Over the last few years, we shifted our focus to selling cloud-based software. As a result of our business model transition from an on-premise to a software-as-a-service model, we have updated the presentation in the first quarter of fiscal year 2019 to present the revenue and cost of revenue line items within our Consolidated Statements of Operations with the break-out between two new lines called "Subscription" and "Professional services". Revenues and cost of revenues in prior periods have been reclassified in this filing to conform to the new presentation. This change in presentation does not affect our previously-reported total revenues and total cost of revenues.

## Results of Operations

The following tables set forth our consolidated results of operations for the periods presented. The period-to-period comparison of financial results is not necessarily indicative of financial results to be achieved in future periods.

	Three Months Ended December 31, 2018      2017 (in thousands)	
Revenues:		
Subscription	\$25,202	\$23,847
Professional services	9,875	15,220
Total revenues	35,077	39,067
Cost of Revenues:		
Subscription	8,738	9,615
Professional services	7,829	7,194
Total cost of revenues	16,567	16,809
Gross profit	18,510	22,258
Operating Expenses:		
Research and development	7,412	9,068
Sales and marketing	8,052	8,492
General and administrative	6,156	8,731
Total operating expenses	21,620	26,291
Loss from operations	(3,110 )	(4,033 )
Interest expense, net	733	1,423
Other expenses, net	285	125
Loss before income taxes	(4,128 )	(5,581 )
Provision (benefit) for income taxes	598	(324 )
Net loss	\$(4,726 )	\$(5,257 )

## Comparison of the Three Months Ended December 31, 2018 and 2017

## Revenues

	Three Months Ended December 31, 2018		2017		Change	
	Amount	% of Total Revenues	Amount	% of Total Revenues	(\$)	(%)
	(in thousands, except percentages)					
Revenue:						
Subscription	\$25,202	72 %	\$23,847	61 %	\$1,355	6 %
Professional services	9,875	28	15,220	39	(5,345 )	(35)
Total revenues	\$35,077	100 %	\$39,067	100 %	\$(3,990)	(10)%

## Subscription

Subscription revenues increased by \$1.4 million, or 6%, to \$25.2 million for the three months ended December 31, 2018 from \$23.8 million for the three months ended December 31, 2017. As a percentage of total revenues, subscription revenues increased from 61% to 72%. The increase in our subscription revenues was primarily driven by improvement in sales execution and price increases. We intend to focus on growing our recurring revenue from SaaS subscriptions in future periods.

## Professional services

Professional services revenues decreased by \$5.3 million, or 35%, to \$9.9 million during the three months ended December 31, 2018 from \$15.2 million for the three months ended December 31, 2017. As a percentage of total

revenue, professional services revenues decreased from 39% to 28%. The decrease in revenue in absolute dollars and as a percentage of total revenue was primarily in-line with our business model as we have shifted towards cloud-based solutions.

## Cost of Revenues

	Three Months Ended December 31,		2017		Change	
	2018		Amount	% of Revenues	(\$)	(%)
	Amount	% of Revenues	Amount	% of Revenues	(\$)	(%)
	(in thousands, except percentages)					
Cost of revenues						
Subscription	\$8,738	35 %	\$9,615	40 %	\$(877)	(9)%
Professional services	7,829	79	7,194	47	635	9
Total cost of revenues	\$16,567	47 %	\$16,809	43 %	\$(242)	(1)%

## Subscription

Cost of subscription revenues decreased by \$0.9 million, or 9%, to \$8.7 million during the three months ended December 31, 2018 from \$9.6 million for the three months ended December 31, 2017. As a percentage of subscription revenues, cost of subscription revenues decreased from 40% to 35% during the three months ended December 31, 2018, as we continue to improve gross margins by increasing efficiencies in our business and optimizing our cloud platform.

## Professional services

Cost of professional services revenues increased by \$0.6 million, or 9%, to \$7.8 million during the three months ended December 31, 2018 from \$7.2 million for the three months ended December 31, 2017. As a percentage of professional services revenue, cost of professional services revenue increased primarily due to more professional services engagements with lower profit margins.

## Operating Expenses

	Three Months Ended December 31,		
	2018	2017	Change
	(in thousands, except percentages)		

## Operating expenses:

Research and development	\$7,412	\$9,068	\$(1,656)	(18)%
Sales and marketing	8,052	8,492	(440)	(5)
General and administrative	6,156	8,731	(2,575)	(29)
Total operating expenses	\$21,620	\$26,291	\$(4,671)	(18)%

## Research and Development

Research and development expenses decreased by \$1.7 million, or 18%, to \$7.4 million during the three months ended December 31, 2018 from \$9.1 million for the three months ended December 31, 2017. The decrease was primarily due to a \$1.0 million decrease in employee-related costs driven by headcount reduction and a \$0.7 million decrease in costs associated with equipment related, travel and other costs.

## Sales and Marketing

Sales and marketing expenses decreased by \$0.4 million, or 5%, to \$8.1 million during the three months ended December 31, 2018 from \$8.5 million for the three months ended December 31, 2017. This decrease was primarily due to a \$0.3 million decrease in employee-related costs and from the capitalization of commission expense pursuant to the adoption of the new revenue standard in fiscal year 2019, and a \$0.1 million decrease in travel costs and other costs, partially offset by an increase in marketing and consulting costs.

## General and Administrative

General and administrative expenses decreased by \$2.6 million, or 29%, to \$6.2 million during the three months ended December 31, 2018 from \$8.7 million for the three months ended December 31, 2017. The decrease was primarily due to a \$2.4 million decrease in employee-related costs, and a \$0.4 million decrease in facilities, depreciation and other costs, which were partially offset by \$0.2 million in third-party professional services costs.



## Interest and Other Expenses, Net

	Three Months Ended December 31, 2018			2017		Change
	(in thousands, except percentages)					
Interest expense, net	\$733	\$1,423	\$(690)	(48)	%	
Other expenses, net	\$285	\$125	\$160	128	%	

Interest expense decreased during the three months ended December 31, 2018 compared to 2017 and was primarily due to a lower interest rate resulting from the refinancing during the third quarter of fiscal year 2018.

The increase in other expenses, net is primarily due to currency fluctuations.

## Provision (benefit) for Income Taxes

	Three Months Ended December 31, 2018			2017		Change
	(in thousands, except percentages)					
Provision (benefit) for income taxes	\$598	\$(324)	\$922	(285)	%	

Provision (benefit) for income taxes is primarily related to the state minimum taxes and foreign taxes on our profitable foreign operations. The increase in the provision during the three months ended December 31, 2018 was due to foreign withholding taxes because we repatriated certain foreign subsidiary earnings to the United States during the three months ended December 31, 2018.

## Liquidity and Capital Resources

As of December 31, 2018, we had cash and cash equivalents of \$52.2 million. Based on our future expectations and historical usage, we believe our current cash and cash equivalents are sufficient to meet our operating needs including principal payments related to our debt for at least the next twelve months. Our future capital requirements will depend on many factors, including our rate of revenue growth, the expansion of our sales and marketing activities, the timing and extent of spending to support research and development efforts and expansion of our business and capital expenditures. To the extent that existing cash and cash equivalents and cash from operations are insufficient to fund our future activities, we may elect to raise additional capital through the sale of additional equity or debt securities, obtain a credit facility or sell certain assets. If additional funds are raised through the issuance of debt securities, these securities could have rights, preferences and privileges senior to holders of common stock, and terms of any debt could impose restrictions on our operations. The sale of additional equity or convertible debt securities could result in additional dilution to our stockholders and additional financing may not be available in amounts or on terms acceptable to us. We may also seek to invest in, or acquire complementary businesses or technologies, any of which could also require us to seek additional equity or debt financing. Additional funds may not be available on terms favorable to us or at all.

## Term Loan

In January 2017, we entered into a financing agreement ("Financing Agreement") pursuant to which we borrowed an aggregate principal amount of \$50.0 million, which was used to fund a portion of the Revitas acquisition.

In May 2018, this term loan was extinguished and repaid in full, in connection with a new facility with Wells Fargo Bank, N.A. ("Wells Fargo"), as discussed below.

#### Term Loan Refinancing

On May 4, 2018, we entered into a Credit Agreement ("Credit Agreement") with Wells Fargo for a term loan in the amount of \$50.0 million and up to a \$5.0 million revolving line of credit. In conjunction with this refinancing, we repaid in full the existing term loan under the Financing Agreement, dated January 5, 2017. The results of this action allowed us to obtain a more favorable interest rate.

The loans made pursuant to the Credit Agreement will bear interest at a rate of: (i) when we have a leverage ratio of more than 3.5:1.0, either the Base Rate plus 3.50% or the LIBOR Rate plus 4.50%, as selected by us; (ii) when we have a leverage ratio between 2.0:1.0 and 3.5:1.0, either the Base Rate plus 2.50% or the LIBOR Rate plus 3.50%; or (iii) when we have a leverage ratio of less than 2.0:1.0, either the Base Rate plus 2.00% or the LIBOR Rate plus 3.00%. The term loan will mature on May 4,



2023. We are required to repay the principal of the term loan in quarterly installments of \$250,000 each from September 30, 2018 through June 30, 2019, \$625,000 each from September 30, 2019 through June 30, 2020, and \$937,500 each from September 30, 2020 through March 31, 2023, and to repay the remaining principal amount at maturity. We may voluntarily prepay the term loan, with any such prepayment applied against the remaining installments of principal of the term loan on a pro rata basis; provided, that at our election, one such prepayment made prior to January 2, 2019 in an amount not to exceed \$5 million may be applied against the remaining installments of principal in the direct order of maturity. We made approximately \$4.8 million of principal payment on January 2, 2019. We are required to repay the term loan with proceeds from the sale of assets, the receipt of certain insurance proceeds, litigation proceeds or indemnity payments, or the incurrence of debt (in each case subject to certain exceptions).

Certain United States subsidiaries of ours (Guarantors) and the Company have entered into a guaranty and security agreement pursuant to which the Guarantors have agreed to guarantee our payment of obligations under the Credit Agreement, and pursuant to which we and Guarantors' obligations under the Credit Agreement and the guaranty and security agreement are secured by substantially all of their assets.

The Credit Agreement requires us and our subsidiaries to maintain certain financial covenants, including maintaining consolidated liquidity (cash in the United States plus revolving credit line availability) of at least \$15.0 million, minimum levels of maintenance and subscription fee revenue and, if liquidity is less than \$30 million for 90 consecutive days, leverage ratio not greater than 3.50 to 1.00. The Credit Agreement also requires us and Guarantors to maintain certain non-financial covenants, including covenants that restrict their ability to dispose of assets, change the Company's organizational documents, merge with or acquire (or make investments in) other entities, or incur other indebtedness or liens. The Credit Agreement also provides for customary events of default, including failure to pay amounts due or to comply with covenants, default on other indebtedness, or a change of control with respect to us.

#### Promissory Notes

Also, in connection with the Revitas acquisition, the Company incurred \$10.0 million in debt in the form of two promissory notes with the sellers, one which matured on July 5, 2018 and the other which will mature on January 5, 2020. The Company paid the first promissory note of \$5.0 million on July 5, 2018. The remaining promissory note bears interest at the rate of 3% per annum, and is subject to a right of set-off as partial security for the indemnification obligations of the target's stockholders under the Merger Agreement. The remaining promissory notes is subordinate to the term loan with Wells Fargo.

#### Cash Flows

	Three Months Ended December 31,	
	2018	2017
Cash flows used in operating activities	\$ (4,261 )	\$ (9,741 )
Cash flows used in investing activities	(141 )	(60 )
Cash flows provided by financing activities	(214 )	552

#### Cash Flows from Operating Activities

Net cash used in operating activities during the three months ended December 31, 2018 was primarily the result of our net loss of \$4.7 million and a \$6.0 million change in operating assets and liabilities, partially offset by \$6.5 million of non-cash adjustments such as stock-based compensation and depreciation and amortization. The \$6.0 million net change in operating assets and liabilities consisted of a \$0.2 million decrease in accounts receivable, primarily reflective of collections in excess of invoicing during the period, a \$0.4 million decrease in prepaid expense and other assets, a \$2.4 million decrease in deferred revenue primarily due to timing of amounts invoiced and revenue recognized, a \$0.5 million increase in other accrued and long term liabilities, a \$5.6 million decrease in accrued employee compensation primarily due to the payment of bonuses and other employee benefits, and a \$1.8 million decrease in accounts payable.

Net cash used in operating activities during the three months ended December 31, 2017 was primarily the result of our net loss of \$5.3 million and a \$10.5 million change in operating assets and liabilities, partially offset by \$6.0 million of non-cash adjustments such as deferred income taxes benefits, stock-based compensation and depreciation and amortization. The \$10.5 million net change in operating assets and liabilities consisted of a \$13.8 million increase in accounts receivable, primarily reflective of invoicing in excess of collections during the period, a \$0.2 million decrease in deferred cost of implementation services, a \$0.4 million decrease in prepaid expense and other assets, an \$8.1 million increase in deferred revenue primarily due to timing of amounts invoiced and revenue recognized, a \$0.7 million decrease in other accrued and long term liabilities, a \$5.9 million decrease in accrued employee compensation primarily due to payment of bonuses and other employee benefits, and a \$1.2 million increase in accounts payable.

#### Cash Flows from Investing Activities

Net cash used in investing activities for the three months ended December 31, 2018 and 2017 was primarily due to purchases of property and equipment.

#### Cash Flows from Financing Activities

Net cash used in financing activities for the three months ended December 31, 2018 was due to the principal payment on our term loan with Wells Fargo partially offset from the cash provided by the exercises of stock options.

Net cash provided by financing activities for the three months ended December 31, 2017 resulted from the exercises of stock options.

#### Off-Balance Sheet Arrangements

As of December 31, 2018, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

#### Critical Accounting Policies and Estimates

We prepare our condensed consolidated financial statements in accordance with generally accepted accounting principles in the United States. The preparation of condensed consolidated financial statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from the estimates made by our management. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected. We believe that the accounting policies referred below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates described in our most recent Annual Report filed on Form 10-K for the fiscal year ended September 30, 2018, except for changes associated with revenue recognition resulting from the adoption of Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers" ("ASC 606") and the addition of a hedging policy.

#### Revenue Recognition

#### Updated Significant Accounting Policies

#### Revenue Recognition

We derive our revenues primarily from subscription revenues and professional services revenues and applies the following framework to recognize revenue

- 1. Identification of the contract, or contracts, with a customer
- 2. Identification of the performance obligations in the contract
- 3. Determination the transaction price
- 4. Allocation of the transaction price to the performance obligation in the contract
- 5. Recognition of revenue when, or as, the Company satisfies a performance obligation

We enter into contracts with customers that can include various combinations of services which are generally distinct and accounted for as separate performance obligations. As a result, our contracts may contain multiple performance obligations. We determine whether the services are distinct based on whether the customer can benefit from the service on its own or together with other resources that are readily available and whether our commitment to transfer the product or service to the customer is separately identifiable from other obligations in the contract. We generally consider our cloud-based subscription offerings, maintenance and support, managed service support, professional

services and training as distinct performance obligations. Term-based licenses generally have two performance obligations: software licenses and software maintenance.

The transaction price is determined based on the consideration to which we expect to be entitled in exchange for transferring services and products to the customer. Variable consideration (if any) is estimated and included in the transaction price if, in the our judgment, it is probable that there will not be a significant future reversal of cumulative revenue under the contract. We typically does not offer contractual rights of return or concessions.

For contracts that contain multiple performance obligations, the transaction price is allocated to each performance obligation based on their relative standalone selling price (“SSP”). SSP is estimated for each distinct performance obligation and judgment may be involved in the determination. We determine SSP using information that may include market conditions and other observable inputs. We evaluate the SSP for its performance obligations on a quarterly basis.

Revenue is recognized when control of these services is transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for these services. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined that our contracts generally do not include a significant financing component.

Subscription revenue related to cloud-based solutions, maintenance and support and managed service and support revenues are generally recognized ratably over the contractual term of the arrangement beginning on the date that our service is made available to the customer. These arrangements, in general, are committed one to three year terms. For term-based license contracts, the transaction price allocated to the software element is recognized when its made available to the customers. The transaction price allocated to the related support and updates are recognized ratably over the contract term. Term-based license arrangements may include termination rights that limit the term of the arrangement to a month, quarter or year.

Professional services revenues are generally recognized as the services are rendered for time and material contracts or on a proportional performance basis for fixed price contracts. The majority of our professional services contracts are on a time and materials basis. Revenue from training and customer-reimbursed expenses is recognized as we delivery these services. Our implementation projects generally have a term ranging from a few months to twelve months and may be terminated by the customer at any time.

#### Capitalized Contract Acquisition Costs

We capitalize incremental costs incurred to acquire contracts with customers, primarily sales commissions, for which the associated revenue is expected to be recognized in future periods. We incur these costs in connection with both initial contracts and renewals. The costs in connection with initial contracts and renewals are deferred and amortized over an expected customer life of five years and over the renewal term, respectively, which corresponds to the period of benefit to the customer. We determined the period of benefit by considering our history of customer relationships, length of customer contracts, technological development and obsolescence and other factors. The current and non-current portion of capitalized contract acquisition costs are included in other current assets and other assets on our Condensed Consolidated Balance Sheets. Amortization expense is included in sales and marketing expenses in the accompanying Condensed Consolidated Statements of Operations.

#### Hedging

##### Cash Flow Hedging—Hedges of Forecasted Foreign Currency Operation Costs

Our customers typically pay in U.S. dollars, however in foreign jurisdictions, we expense are typically denominated in local currency. The Company may use foreign exchange forward contracts to hedge certain cash flow exposures resulting from changes in these foreign currency exchange rates. These foreign exchange contracts are generally one month to one year in duration.

To receive hedge accounting treatment, all hedging relationships are formally documented at the inception of the hedge, and the hedges must be highly effective in offsetting changes to future cash flows on hedged transactions. We record changes in the fair value of these cash flow hedges in accumulated other comprehensive income (loss) in the Condensed Consolidated Balance Sheets, until the forecasted transaction occurs, at which point, the related gain or loss on the cash flow hedge is reclassified to the financial statement line item to which the derivatives relates. In the event the underlying forecasted transaction does not occur or it becomes probable that it will not occur, the gain or loss on the related cash flow hedge is also reclassified into earnings from accumulated other comprehensive income (loss). If we do not elect hedge accounting, or the contract does not qualify for hedge accounting treatment, the changes in fair value from period to period are recognized immediately in the same financial statement line item to which the derivative relates.

## Hedge Effectiveness

For foreign currency hedges designated as cash flow hedges, we elected to utilize the Critical Terms Method to determine if the hedges are highly effective and thus, eligible for hedge accounting treatment. We evaluate the effectiveness of the foreign exchange contracts on a quarterly basis.

## Adjusted EBITDA

Adjusted EBITDA is a financial measure that is not calculated in accordance with generally accepted accounting principles in the United States ("U.S. GAAP"). We define adjusted EBITDA as net loss before items discussed below, including: stock-based compensation expense, depreciation and amortization, deferred revenue adjustment related to the acquisition of Revitas, interest expense (income), net, other expenses (income), net, and provision (benefit) for income taxes. We believe adjusted EBITDA provides investors with consistency and comparability with our past financial performance and facilitates period-to-period comparisons of our operating results and our competitors' operating results. We also use this measure internally to establish budgets and operational goals to manage our business and evaluate our performance.

We understand that, although adjusted EBITDA is frequently used by investors and securities analysts in their evaluations of companies, adjusted EBITDA has limitations as an analytical tool, and it should not be considered in isolation or as a substitute for analysis of our results of operations as reported under the U.S. GAAP. These limitations include:

- adjusted EBITDA does not include deferred revenue adjustment related to the Revitas acquisition;
- adjusted EBITDA does not reflect stock-based compensation expense;
- depreciation and amortization are non-cash charges, and the assets being depreciated or amortized will often have to be replaced in the future; and adjusted EBITDA does not reflect any cash requirements for these replacements;
- adjusted EBITDA does not reflect cash requirements for income taxes and the cash impact of other income or expense; and
- other companies in our industry may calculate adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

The following tables provide a reconciliation of adjusted EBITDA to net loss:

	Three Months Ended December	
	31,	
	2018	2017
	(in thousands)	
Reconciliation of Adjusted EBITDA:		
Net loss	\$ (4,726 )	\$ (5,257 )
Adjustments:		
Stock-based compensation expense	4,203	4,036
Depreciation and amortization	1,842	2,265
Deferred revenue adjustment	—	627
Interest expense, net	733	1,423
Other expenses, net	285	125
Provision (benefit) for income taxes	598	(324 )
Adjusted EBITDA	\$ 2,935	\$ 2,895

## Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. We do not hold or issue financial instruments for trading purposes.

## Interest Rate Sensitivity

Our exposure to market risk for changes in interest rates relates primarily to our cash and cash equivalents and debt. Our primary exposure to market risk is interest income and expense sensitivity, which is affected by changes in the general level of the interest rates in the United States. However, because of the short-term nature of our interest-bearing securities, a 10% change in market interest rates would not be expected to have a material impact on our consolidated financial condition or results of operations. In addition, as of December 31, 2018, we had approximately \$49.5 million, respectively, in short-term and long-term



debt with variable interest components. With respect to our interest expense for the three months ended December 31, 2018, a 10% hypothetical change in interest rates would have resulted in an increase approximately of \$0.1 million, respectively, in our interest expense for such period.

#### Foreign Currency Exchange Risk

Our customers typically pay us in U.S. dollars, however in foreign jurisdictions, our expenses are typically denominated in local currency. Our expenses and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Indian Rupee. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy.

On December 24, 2018, we entered into several hedging contracts. As of December 31, 2018, the total notional amount of outstanding of cash hedging contracts was \$5.0 million. All contracts are set to expire at various dates through September 2019. For the three months ended as of December 31, 2018, there were no net gains or losses recognized in earnings relating to hedges of forecasted transactions that did not occur. During the three months ended December 31, 2018, the effect of a hypothetical 10% change in foreign currency exchange rates applicable to our business would have had an impact of approximately \$0.3 million. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

#### Item 4 Controls and Procedures

##### Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2018. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Based on the evaluation of our disclosure controls and procedures as of December 31, 2018, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

##### Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We implemented internal controls in connection with our adoption of the new accounting standard related to revenue recognition effective October 1, 2018; however, these did not constitute significant changes to our internal control over financial reporting.

##### Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls 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 policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

## PART II. OTHER INFORMATION

### Item 1. Legal Proceedings

From time to time, we are involved in various legal proceedings arising from the normal course of our business activities. We accrue a liability when management believes that it is both probable that a liability has been incurred and the amount of loss can be reasonably estimated. As of December 31, 2018, it was not reasonably possible that any material loss had been incurred. We review these matters at least quarterly and adjust our accruals to reflect the impact of negotiations, settlements, rulings, advice of legal counsel, and other information and events.

### ITEM 1A. Risk Factors

Our operating and financial results are subject to various risks and uncertainties. You should carefully consider the risks and uncertainties described below, together with all of the other information in this report, including the Consolidated Financial Statements and the related notes included elsewhere in this report, before deciding whether to invest in shares of our common stock. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks or others not specified below actually occurs, our business, financial condition, results of operations, and future prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

#### Risks Related to Our Business

We have incurred losses in the past, and we may not be profitable in the future.

We have incurred net losses of \$4.7 million and \$5.3 million for the three months ended December 31, 2018 and 2017, respectively. As of December 31, 2018, we had an accumulated deficit of \$197.8 million. Our expenses may increase in future periods as we implement additional initiatives designed to grow our business, including, among other things, increasing sales to existing customers, expanding our customer base, introducing new applications, enhancing existing solutions, extending into the mid-market, and continuing to penetrate the technology industry. Increased operating expenses related to personnel costs such as salary, bonus, commissions and stock-based compensation as well as third-party contractors, travel-related expenses and marketing programs may also increase our expenses in future periods. In the near-term, our revenues may not be sufficient to offset increases in operating expenses, and we expect that we will incur losses. Additionally, we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may result in losses in future periods. We cannot assure you that we will again obtain and maintain profitability in the future. Any failure to return to profitability may materially and adversely affect our business, results of operations and financial condition.

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

Our operating results have historically varied from period to period, and we expect that this trend will continue as a result of a number of factors, many of which are outside of our control and may be difficult to predict, including:

- our ability to increase sales to and renew agreements with our existing customers;
- our ability to expand and improve the productivity of our direct sales force;
- our ability to attract and retain new customers and to improve sales execution;
- the continued ability to transition from an on-premise to a cloud-based business model;
- the timing and volume of incremental customer purchases of our cloud-based solutions, which may vary from period to period based on a customer's needs at a particular time;
- our ability to successfully expand our business domestically and internationally;
- disruptions in our relationships with partners;
- the timing of new orders and revenue recognition for new and prior period orders;
- changes in the competitive landscape of our industry, including mergers or consolidation among our customers or competitors;
- the complexity of implementations and the scheduling and staffing of the related personnel, each of which can affect the timing and duration of revenue recognition;
- issues related to changes in customers' business requirements, project scope, implementations or market needs;



- the mix of revenues in any particular period between subscription and professional services;
- the timing of upfront recognition of sales commission expense relative to the deferred recognition of our revenues;
- the timing of recognition of payment of royalties;
- the timing of our annual payment and recognition of employee non-equity incentive and bonus payments;
- the budgeting cycles and purchasing practices of customers;
- changes in customer requirements or market needs;
- delays or reductions in information technology spending and resulting variability in customer orders from quarter to quarter;
- delays or difficulties encountered during customer implementations, including customer requests for changes to the implementation schedule;
- the timing and success of new product or service introductions by us or our competitors;
- the amount and timing of any customer refunds or credits;
- our ability to accurately estimate the costs associated with any fixed bid projects;
- deferral of orders from customers in anticipation of new solutions or solution enhancements announced by us or our competitors;
- the length of time for the sale and implementation of our solutions to be complete, and our level of upfront investments prior to the period we begin generating revenues associated with such investments;
- the amount and timing of our operating expenses and capital expenditures, and our ability to timely repay our debt;
- price competition;
- the rate of expansion and productivity of our direct sales force;
- regulatory compliance costs;
- sales commissions expenses related to large transactions;
- technical difficulties or interruptions in the delivery of our cloud-based solutions;
- seasonality or cyclical fluctuations in our industries;
- future accounting pronouncements or changes in our accounting policies, including the impact of the adoption and implementation of the Financial Accounting Standards Board's new standard regarding revenue recognition;
- increases or decreases in our expenses caused by fluctuations in foreign currency exchange rates, as a significant portion of our expenses are incurred and paid in currencies other than the U.S. dollar;
- general economic conditions, both domestically and in our foreign markets; and
- entry of new competitors into our market.

Any one of the factors above or discussed elsewhere in this report or the cumulative effect of some of the factors referred to above may result in significant fluctuations in our financial and other operating results. This variability and unpredictability could result in our failure to meet expectations of investors for our revenues or other operating results for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our common stock could decrease.

We depend on our management team and our key sales and development and services personnel, and the loss of one or more key employees or groups could harm our business and prevent us from implementing our business plan in a timely manner.

Our success depends on the expertise, efficacy and continued services of our executive officers, who are geographically dispersed. We have in the past and may in the future continue to experience changes in our executive management team resulting from the departure of executives or subsequent hiring of new executives, which may be disruptive to our business. Any changes in business strategies can create uncertainty, may negatively impact our ability to execute our business strategy quickly and effectively and may ultimately be unsuccessful. The impact of hiring new executives may not be immediately realized. We are also substantially dependent on the continued service of our existing development and services personnel because of their familiarity with the inherent complexities of our solutions.



Our personnel do not have employment arrangements that require them to continue to work for us for any specified period and, therefore, they could terminate their employment with us at any time. We do not maintain key person life insurance policies on any of our employees. The loss of one or more of our key employees or groups could seriously harm our business.

We must improve our sales execution and increase our sales channels and opportunities in order to grow our revenues, and if we are unsuccessful, our operating results may be adversely affected.

We must improve our sales execution in order to, among other things, increase the number of our sales opportunities and grow our revenue. We must improve the market awareness of our solutions and expand our relationships with our channel partners in order to increase our revenues. Further, we believe that we must continue to develop our relationships with new and existing customers and partners, and create additional sales opportunities to effectively and efficiently extend our geographic reach and market penetration. Our efforts to improve our sales execution could result in a material increase in our sales and marketing expense and general and administrative expense, and there can be no assurance that such efforts will be successful. We have experienced challenges in sales execution in the past, and if we are unable to significantly improve our sales execution, increase the awareness of our solutions, create additional sales opportunities, expand our relationships with channel partners, leverage our relationship with strategic partners, such as Cumberland and High Point, or effectively manage the costs associated with these efforts, our operating results and financial condition could be materially and adversely affected.

Our transition from an on-premise to a cloud-based business model is subject to numerous risks and uncertainties.

Our business model has shifted away from sales of on premise software licenses to focus on sales of subscriptions for our cloud-based solutions, which provide our customers the right to access certain of our software in a hosted environment for a specified subscription period. This cloud-based strategy may give rise to a number of risks, including the following:

- if customers are uncomfortable with cloud-based solutions and desire only perpetual licenses, we may experience longer than anticipated sales cycles and sales of our cloud-based solutions may lag behind our expectations;
- our cloud-based strategy may raise concerns among our customer base, including concerns regarding changes to pricing over time, service availability, information security of a cloud-based solution and access to files while offline or once a subscription has expired;

- we may be unsuccessful in maintaining our target pricing, adoption and projected renewal rates;

- we may select a target price that is not optimal and could negatively affect our sales or earnings; and

- we may incur costs at a higher than forecasted rate as we expand our cloud-based solutions.

Our cloud-based strategy also requires a considerable investment of technical, financial, legal and sales resources, and a scalable organization. Market acceptance of such offerings is affected by a variety of factors, including but not limited to: security, reliability, scalability, customization, performance, current license terms, customer preference, customer concerns with entrusting a third party to store and manage their data, public concerns regarding privacy and the enactment of restrictive laws or regulations. Whether our business model transition will prove successful and will accomplish our business and financial objectives is subject to numerous uncertainties, including but not limited to: customer demand, renewal rates, channel acceptance, our ability to further develop and scale infrastructure, our ability to include functionality and usability in such solutions that address customer requirements, tax and accounting implications, pricing and our costs. In addition, the metrics we use to gauge the status of our business may evolve over the course of the transition as significant trends emerge.

If we are unable to successfully execute our cloud-based strategy and navigate our business model transition in light of the foregoing risks and uncertainties, our results of operations could be negatively impacted.

If our solutions experience data security breaches, and there is unauthorized access to our customers' data, we may lose current or future customers, our reputation and business may be harmed and we may incur significant liabilities.

Our solutions are used by our customers to manage and store personally identifiable information, proprietary information and sensitive or confidential data relating to their business. Although we maintain security features in our solutions, our security measures may not detect or prevent hacker interceptions, break-ins, security breaches, the introduction of viruses or malicious code, such as "ransomware," and other disruptions that may jeopardize the security

of information stored in and transmitted by our solutions. Cyber-attacks and other malicious Internet-based activity continue to increase generally. A party that is able to circumvent our security measures in our solutions could misappropriate our or our customers' proprietary or confidential information, cause interruption in their operations, damage or misuse their computer systems and misuse any information that they misappropriate. Because techniques used to obtain unauthorized access or 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 to implement adequate preventative measures.



There can be no assurance that limitation of liability, indemnification or other protective provisions in our contracts would be applicable, enforceable or adequate in connection with a security breach, or would otherwise protect us from any such liabilities or damages with respect to any particular claim. We also cannot be sure that our existing general liability insurance coverage and coverage for errors or omissions will continue to be available on acceptable terms or will be available in sufficient amounts to cover one or more large claims, or that the insurer will not deny coverage as to any future claim. One or more large claims may be asserted against us that exceed our available insurance coverage, or changes in our insurance policies may occur, including premium increases or the imposition of large deductible or co-insurance requirements. If any compromise of the security of our solutions were to occur, we may be subject to litigation, indemnity obligations and other possible liabilities, and we may lose existing customers and the ability to attract future customers, any of which could harm our reputation, business, financial condition and results of operations and result in significant liability.

Changes in privacy laws, regulations and standards may cause our business to suffer.

Personal privacy and data security have become significant issues in the United States, Europe and in many other jurisdictions where we offer our solutions. The regulatory framework for privacy and security issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. For example, the Court of Justice of the European Union ruled in October 2015 that the US-EU Safe Harbor framework was invalid, and the framework's successor, the US-EU Privacy Shield, while adopted, has been criticized and challenged by multiple privacy advocacy groups. Furthermore, federal, state or foreign government bodies or agencies have in the past adopted, and may in the future adopt, laws and regulations affecting data privacy, for example, the recently enacted California Consumer Privacy Act of 2018 (CCPA). Industry organizations also regularly adopt and advocate for new standards in this area. In the United States, these include rules and regulations promulgated under the authority of federal agencies and state attorneys general and legislatures and consumer protection agencies. Internationally, many jurisdictions in which we operate have established their own data security and privacy legal framework with which we or our customers must comply, including but not limited to, the European General Data Protection Regulation, which imposes additional obligations and risks upon our business. In many jurisdictions, enforcement actions and consequences for noncompliance are also rising. In addition to government regulation, privacy advocates and industry groups may propose new and different self-regulatory standards that either legally or contractually applies to us.

Any inability to adequately address privacy and security concerns, even if unfounded, or comply with applicable privacy and data security laws, regulations and policies, could result in additional cost and liability to us, damage our reputation, inhibit sales and adversely affect our business. Furthermore, the costs of compliance with, and other burdens imposed by, the laws, regulations, and policies that are applicable to the businesses of our customers may limit the use and adoption of, and reduce the overall demand for, our solutions. Privacy and data security concerns, whether valid or not valid, may inhibit market adoption of our solutions, particularly in foreign countries. If we are not able to adjust to changing laws, regulations and standards related to privacy or security, our business may be harmed. Failure to adequately expand and train our direct sales force will impede our growth.

We rely almost exclusively on our direct sales force to sell our solutions. We believe that our future growth will depend, to a significant extent, on the continued development of our direct sales force and its ability to manage and retain our existing customer base, expand the sales of our solutions to existing customers and obtain new customers. Because our software is complex and often must interoperate with complex computing requirements, it can take longer for our sales personnel to become fully productive compared to other software companies. Our ability to achieve significant growth in revenues 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 may, in some cases, take more than a year before becoming fully productive, if at all. If we are unable to hire and develop sufficient numbers of productive direct sales personnel, and if these sales personnel are unable to achieve full productivity, sales of our solutions will suffer and our growth will be impeded.

Our sales cycles are time-consuming, and it is difficult for us to predict when or if sales will occur.

Our sales efforts are often targeted at larger enterprise customers, and as a result, we face greater costs, must devote greater sales support to individual customers, have longer sales cycles and have less predictability in completing some of our sales. Also, sales to large enterprises often require us to provide greater levels of education regarding the use

and benefits of our solutions. We believe that our customers view the purchase of our solutions as a significant and strategic decision. As a result, customers carefully evaluate our solutions, often over long periods with a variety of internal constituencies. In addition, the sales of our solutions may be subject to delays if the customer has lengthy internal budgeting, approval and evaluation processes, which are quite common in the context of introducing large enterprise-wide technology solutions. As a result, it is difficult to predict the timing of our future sales.

Our revenues are dependent on our ability to maintain and expand existing customer relationships and our ability to attract new customers.

The continued growth of our revenues is dependent in part on our ability to expand the use of our solutions by existing customers and attract new customers. Likewise, it is also important that customers using our on-premise solutions renew their maintenance agreements and that customers using our cloud-based solutions renew their subscription agreements with us. Our customers have no obligation to renew their agreements after the expiration of the initial term, and there can be no assurance that they will do so. We have had in the past and may in the future have disputes with customers regarding our solutions, which may impact such customers' decisions to continue to use our solutions and pay for maintenance and support in the future.

If we are unable to expand our customers' use of our solutions, sell additional solutions to our customers, maintain our renewal rates for maintenance and subscription agreements and expand our customer base, our revenues may decline or fail to increase at historical growth rates, which could adversely affect our business and operating results. In addition, if we experience customer dissatisfaction with customers in the future, we may find it more difficult to increase use of our solutions within our existing customer base and it may be more difficult to attract new customers, or we may be required to grant credits or refunds, any of which could negatively impact our operating results and materially harm our business.

The loss of one or more of our key customers could slow our revenue growth or cause our revenues to decline.

A substantial portion of our total revenues in any given period may come from a relatively small number of customers. As of September 30, 2018, we had 154 customers. Although our largest customers typically change from period to period, for the fiscal year ended September 30, 2018, our 15 largest customers accounted for more than 57% of our total revenues, and one customer, Johnson & Johnson, accounted for approximately 15% of our total revenues in fiscal year 2018. However, during the fiscal year ended September 30, 2018, no customer represented more than 10% of our subscription revenues. We expect that we will continue to depend upon a relatively small number of customers for a significant portion of our total revenues for the foreseeable future. The loss of any of our significant customers or groups of customers for any reason, or a change of relationship with any of our key customers may cause a significant decrease in our total revenues.

Additionally, mergers or consolidations among our customers in the life sciences and semiconductor industries, both of which are currently undergoing significant consolidation, could reduce the number of our customers and could adversely affect our revenues and sales. In particular, if our customers are acquired by entities that are not also our customers, that do not use our solutions or that have more favorable contract terms and choose to discontinue, reduce or change the terms of their use of our solutions, our business and operating results could be materially and adversely affected.

Our acquisition of other companies could require significant management attention, disrupt our business, dilute stockholder value and adversely affect our operating results.

As part of our business strategy, we have in the past and may in the future make investments in other companies, solutions or technologies to, among other reasons, expand or enhance our product offerings. In the future, any significant acquisition would require the consent of our lenders. Any failure to receive such consent could delay or prohibit us from acquiring companies that we believe could enhance our business.

We may not ultimately strengthen our competitive position or achieve our goals from any future acquisition, and any acquisitions we complete could be viewed negatively by users, customers, partners or investors. In addition, if we fail to integrate successfully such acquisitions, or the technologies associated with such acquisitions, into our company, the revenues and operating results of the combined company could be adversely affected. In addition, we may not be able to successfully retain the customers and key personnel of such acquisitions over the longer term, which could also adversely affect our business. The integration of any future-acquired business will require significant time and resources, and we may not be able to manage the process successfully. We may not successfully evaluate or utilize the acquired technology and accurately forecast the financial impact of the acquisition, including accounting charges.

It is also possible that a governmental entity could initiate an antitrust investigation at any time. Among other things, an investigation that is resolved unfavorably to us could delay or prevent the completion of a transaction, require us to divest or sell the assets or businesses we acquired, limit the ability to realize the expected financial or strategic benefits of a transaction or have other adverse effects on our current business and operations.

We may have to pay cash, incur debt or issue equity securities to pay for any acquisition, each of which could affect our financial condition or the value of our capital stock. To fund any future acquisition, we may issue equity, which would result in dilution to our stockholders, or incur more debt, which would result in increased fixed obligations and could subject us to additional covenants or other restrictions that would impede our ability to manage our operations.

Because we recognize a majority of our subscription revenues from our customers over the term of their agreements, downturns or upturns in sales of our cloud-based solutions may not be immediately reflected in our operating results. Subscription revenues primarily include contractual arrangements with customers accessing our cloud-based solutions and revenues associated with maintenance and support agreements from license customers. We recognize a majority of our subscription revenues over the term of our customer agreements, which, on average are typically one to three years. As a result, most of our quarterly subscription revenues result from agreements entered into during previous quarters. Consequently, a shortfall in sales of our cloud-based solutions or renewal of maintenance and support agreements in any quarter may not significantly reduce our subscription revenues for that quarter but may negatively affect subscription revenues in future quarters. Accordingly, the effect of significant downturns in sales of our cloud-based solutions or renewals of our maintenance and support agreements may not be fully reflected in our results of operations until future periods. We may be unable to adjust our cost structure to compensate for this potential shortfall in subscription revenues. Our revenue recognition model for our cloud-based solutions and maintenance and support agreements also makes it difficult for us to rapidly increase our revenues through additional sales in any period, as a significant amount of our revenues are recognized over the applicable agreement term. As a result, changes in the volume of sales of our cloud-based solutions or the renewals of our maintenance and support agreements in a particular period would not be fully reflected in our revenues until future periods.

Our indebtedness could adversely affect our business and limit our ability to expand our business or respond to changes, and we may be unable to generate sufficient cash flow to satisfy our debt service obligations.

In May 2018, we entered into a credit agreement with Wells Fargo under which we incurred \$50 million of indebtedness to refinance indebtedness that we incurred in January 2017 to fund the cash portion of our Revitas acquisition, and established a revolving credit facility of \$5.0 million. This term loan is secured by substantially all of our assets and matures in May 2023. We also issued two promissory notes for an aggregate of \$10 million in January 2017 to the sellers of Revitas, one of which was repaid in full in May 2018. The incurrence of significant indebtedness could have adverse consequences, including the following:

- reducing the availability of our cash flow for our operations, capital expenditures, future business opportunities and other purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate;
- increasing our vulnerability to general adverse economic and industry conditions; and
- lengthening our sales process as customers evaluate our financial viability.

We must repay the \$50 million term loan in quarterly installments of \$250,000 each from September 30, 2018 through June 30, 2019, \$625,000 each from September 30, 2019 through June 30, 2020, and \$937,500 each from September 30, 2020 through March 31, 2023, and must repay the remaining principal amount at maturity in May 2023.

Additionally, our remaining promissory note to the sellers of Revitas will mature in January 2020. Our ability to generate cash to repay our indebtedness is subject to the performance of our business, as well as general economic, financial, competitive and other factors that are beyond our control. If our business does not generate sufficient cash flow from operating activities or if future borrowings are not available to us in amounts sufficient to enable us to fund our liquidity needs, our operating results, financial condition and ability to expand our business may be adversely affected.

The term loan bear interest at a variable rate of either a base rate plus a margin ranging from 2.0% to 3.5%, or LIBOR plus a margin ranging from 3.0% to 4.5%, which exposes us to interest rate risk. Changes in economic conditions outside of our control could result in higher interest rates, thereby increasing our interest expense even though the amount borrowed remained the same.

Additionally, the credit agreement governing our term loans with Wells Fargo contains various restrictive covenants, including maintaining consolidated liquidity (cash in the United States plus revolving credit line availability) of at least \$15.0 million, minimum levels of maintenance and subscription fee revenue and, if liquidity is less than \$30 million for 90 consecutive days, a leverage ratio not greater than 3.50 to 1.00. The credit agreement also requires us and our guarantors to maintain certain non-financial covenants, including covenants restricting our ability to dispose of assets, changing our organizational documents, merging with or acquiring other entities, incurring other indebtedness and making investments. Our ability to comply with some of these restrictive covenants can be affected

by events beyond our control, and we may be unable to do so. Upon the occurrence of an event of default, our lenders could elect to declare all amounts outstanding under our financing agreement to be immediately due and payable. If we are unable to repay that amount, our lenders could seize our assets securing the loans and our financial condition could be adversely affected.

We may face risks related to securities litigation that could result in significant legal expenses and settlement or damage awards.

We have been in the past and may in the future become subject to claims and litigation alleging violations of the securities laws or other related claims, which could harm our business and require us to incur significant costs. Significant litigation costs could impact our ability to comply with certain financial covenants under our credit agreement. We are generally obliged, to the extent permitted by law, to indemnify our current and former directors and officers who are named as defendants in these types of lawsuits. Regardless of the outcome, litigation may require significant attention from management and could result in significant legal expenses, settlement costs or damage awards that could have a material impact on our financial position, results of operations and cash flows.

Our implementation cycle is lengthy and variable, depends upon factors outside our control and could cause us to expend significant time and resources prior to earning associated revenues.

The implementation and testing of our solutions typically range from a few months to up to twelve months, and unexpected implementation delays and difficulties can occur. Implementing our solutions typically involves integration with our customers' systems, as well as adding their data to our system. This can be complex, time-consuming and expensive for our customers and can result in delays in the implementation and deployment of our solutions. The lengthy and variable implementation cycle may also have a negative impact on the timing of our revenues, causing our revenues and results of operations to vary significantly from period to period.

A substantial majority of our total revenues have come from sales of our enterprise application suite, and decreases in demand for our enterprise application suite could adversely affect our results of operations and financial condition. Historically, a substantial majority of our total revenues has been associated with our enterprise application suite, whether deployed as individual solutions or as a complete suite. We expect our enterprise application suite to continue to generate a substantial majority of our total revenues for the foreseeable future. Declines and variability in demand for our enterprise application suite could occur for a number of reasons, including improved products or product versions being offered by competitors, competitive pricing pressures, failure to release new or enhanced versions on a timely basis, technological changes that we are unable to address or that change the way our customers utilize our solutions, reductions in technology spending, export restrictions or other regulatory or legislative actions that could limit our ability to sell those products to key customer or market segments. Our business, results of operations, financial condition and cash flows would be adversely affected by a decline in demand for our enterprise application suite.

Our customers often require significant configuration efforts to match their complex business processes. The failure to meet their requirements could result in customer disputes, loss of anticipated revenues and additional costs, which could harm our business.

Our customers often require significant configuration services to address their unique business processes. Supporting such a diversity of configured settings and implementations could become difficult as the number of customers we serve grows. In addition, supporting our customers could require us to devote significant development services and support personnel and strain our personnel resources and infrastructure. We have had in the past and may in the future have disputes with customers regarding the performance and implementation of our solutions. If we are unable to address the needs of our customers in a timely fashion, our customers may decide to seek to terminate their relationship, renew on less favorable terms, not renew their maintenance agreements or subscriptions, fail to purchase additional solutions or services, assert legal claims against us or cease to be a reference. If any of these were to occur, our revenues may decline or we may be required to refund amounts to customers and our operating results may be harmed.

Our future growth is, in large part, dependent upon the increasing adoption of revenue management solutions. Revenue management is at an early stage of market development and adoption, and the extent to which revenue management solutions will become widely adopted remains uncertain. It is difficult to predict customer adoption rates, customer demand for revenue management solutions, including our solutions in particular, the future growth rate and size of this market and the timing of the introduction of additional competitive solutions. Any expansion of the revenue management market depends on a number of factors, including the cost, performance and perceived value associated with revenue management solutions. For example, many companies have invested substantial personnel, infrastructure and financial resources in other revenue management infrastructure and therefore may be reluctant to

implement solutions such as ours. Additionally, organizations that use legacy revenue management products may believe that these products sufficiently address their revenue management needs. Because this market is relatively undeveloped, we must spend considerable time educating customers as to the benefits of our solutions. If revenue management solutions do not achieve widespread adoption, or if there is a reduction in demand for revenue management solutions caused by a lack of customer acceptance, technological challenges, competing technologies and products, decreases in corporate spending or otherwise, it could result in lower sales, reduced renewal and upsell rates and decreased revenues and our business could be adversely affected.



If we are unable to enhance existing solutions and develop new solutions that achieve market acceptance or that keep pace with technological developments, our business could be harmed.

Our ability to increase revenues from existing customers and attract new customers depends in large part on our ability to enhance and improve our existing solutions and to develop and introduce new solutions. The success of any enhancement or new solutions depends on several factors, including timely completion, adequate quality testing, introduction and market acceptance. Any enhancement or new solutions that we develop (such as our Revenue Cloud and Revenue Management as a Service) or acquire may not be introduced in a timely or cost-effective manner, may contain defects or may not achieve the broad market acceptance necessary to generate significant revenues. If we are unable to successfully enhance our existing solutions and develop new solutions to meet customer requirements, our business and operating results will be adversely affected.

Because we designed our solutions to operate on a variety of network, hardware and software platforms, we will need to continuously modify and enhance our solutions to keep pace with changes in networking, internet-related hardware, and software, communication, browser and database technologies. If we are unable to respond in a timely manner to these rapid technological developments in a cost-effective manner, our solutions may become less marketable and less competitive or obsolete and our operating results may be negatively impacted.

We are highly dependent upon the life sciences industry, and factors that adversely affect this industry could also adversely affect us.

Our future growth depends, in large part, upon continued sales to companies in the life sciences industry. Demand for our solutions could be affected by factors that adversely affect demand for the underlying life sciences products and services that are purchased and sold pursuant to contracts managed through our solutions. The life sciences industry is affected by certain factors, including the emergence of large group purchasing and managed care organizations and integrated healthcare delivery networks, increased customer and channel incentives and rebates, the shift of purchasing influence from physicians to economic buyers, increased spending on healthcare by governments instead of commercial entities and increased scope of government mandates, frequency of regulatory reporting and audits, and fines. Accordingly, our future operating results could be materially and adversely affected as a result of factors that affect the life sciences industry generally.

Our efforts to expand the adoption of our solutions in the technology industry will be affected by our ability to provide solutions that adequately address trends in that industry.

We are attempting to expand the use of our solutions by companies in the technology industry, and our future growth depends in part on our ability to increase sales of solutions to customers in this industry and potentially other industries. The technology industry is affected by many factors, including shortening of product lifecycles, core technology products being sold into different end markets with distinct pricing, increasing complexity of multi-tiered global distribution channels, changing financial reporting requirements due to channel complexity and increasing use of off-invoice discounting. If our solutions are not perceived by existing or potential customers in the technology industry as capable of providing revenue management tools that will assist them in adequately addressing these trends, then our efforts to expand the adoption of our solutions in this industry may not be successful, which would adversely impact our business and operating results.

Most of our implementation contracts are on a time and materials basis and may be terminated by the customer.

The contracts under which we perform most of our implementation services may have a term typically ranging between a few months to up to twelve months and are on a time and materials basis and may be terminated by the customer at any time. If an implementation project is terminated sooner than we anticipated or a portion of the implementation is delayed, we would lose the anticipated revenues that we might not be able to replace or it may take significant time to replace the lost revenues with other work or we may be unable to eliminate the associated costs. Consequently, we may recognize fewer revenues than we anticipated or incur unnecessary costs, and our results of operations in subsequent periods could be materially lower than expected.

Our efforts to expand our solutions into other verticals within the life sciences and technology industries or other industries may not succeed and may reduce our revenue growth rate. Even if we are successful in doing so, such efforts may be costly and may impact our ability to achieve profitability.

Our solutions are currently designed primarily for customers in certain verticals of the life sciences and technology industries and potentially into other industries. Our ability to attract new customers and increase our revenues depends

in part on our ability to enter into new industries and verticals. Developing and marketing new solutions to serve other industries and verticals will require us to devote substantial additional resources in advance of consummating new sales or realizing additional revenues. Our ability to leverage the expertise we have developed in the life sciences and technology industries into new industries is unproven and it is likely that we will be required to hire additional personnel, partner with additional third parties and incur considerable research and development expense in order to gain and develop additional expertise for new industries where we lack experience and expertise.

Our efforts to expand our solutions beyond the verticals within the life sciences and technology industries in which we have already developed expertise may not be successful and may reduce our revenue growth rate. Any early stage interest in our solutions in areas beyond the industries we already address may not result in long term success or significant revenues for us. Even if we achieve long-term success in expanding our solutions into other industries and verticals, the costs associated with such expansion may be high, which may impact our ability to achieve profitability. The market for cloud-based solutions is at an early stage of acceptance relative to on-premise solutions, and if it does not develop or develops more slowly than we expect, our business could be harmed.

Although gaining wider acceptance, the market for cloud-based solutions is at an early stage relative to on-premise solutions, and these types of deployments may not achieve and sustain high levels of demand and market acceptance. We plan to accelerate the shift in our business model to recurring revenues, including revenues derived from our cloud-based solutions, by continuing to expand the implementation of our cloud-based solutions both within our current installed base of customers as well as new customers and additional markets in the future. Many companies have invested substantial personnel and financial resources to integrate traditional enterprise software into their businesses, and therefore may be reluctant or unwilling to migrate to a cloud-based solution. Other factors that may affect the market acceptance of cloud-based solutions include:

- perceived security capabilities and reliability;
- perceived concerns about ability to scale operations for large enterprise customers;
- concerns with entrusting a third party to store and manage critical data;
- the level of configurability or customizability of the solutions; and
- ability to perform at or near the capabilities of our on-premise solutions.

If organizations do not perceive the benefits of our cloud-based solutions, or if our competitors or new market entrants are able to develop cloud-based solutions that are or are perceived to be more effective than ours, our plan to accelerate the shift in our business model to recurring revenues may not succeed or may develop more slowly than we expect, if at all, or may result in short-term declines in recognized revenue, any of which would adversely affect our business.

We rely on a small number of third-party service providers to host and deliver our cloud-based solutions, and any interruptions or delays in services from these third parties could impair the delivery of our cloud-based solutions and harm our business.

We currently operate our cloud-based solutions primarily through third party data centers. We do not control the operation of these facilities. These facilities are vulnerable to damage or interruption from natural disasters, fires, power loss, telecommunications failures and similar events. They are also subject to break-ins, computer viruses, sabotage, intentional acts of vandalism and other misconduct. The occurrence of a natural disaster or an act of terrorism, a decision to close the facilities without adequate notice or other unanticipated problems could result in lengthy interruptions, which would have a serious adverse impact on our business. Additionally, our data center agreements are of limited duration, subject to early termination rights in certain circumstances, may include inadequate indemnification and liability provisions, and the providers of our data centers have no obligation to renew their agreements with us on commercially reasonable terms, or at all.

If we continue to add data centers and add capacity in our existing data centers, we may transfer data to other locations. Despite precautions taken during this process, any unsuccessful data transfers may impair the delivery of our service. Interruptions in our service, data loss or corruption may subject us to liability to our customers, cause customers to terminate their agreements and adversely affect our renewal rates and our ability to attract new customers. Data transfers may also subject us to regional privacy and data protection laws that apply to the transmission of customer data across international borders.

We also depend on access to the Internet through third-party bandwidth providers to operate our cloud-based solution. If we lose the services of one or more of our bandwidth providers, or if these providers experience outages, for any reason, we could experience disruption in delivering our cloud-based solutions or we could be required to retain the services of a replacement bandwidth provider. Any Internet outages or delays could adversely affect our ability to provide our solutions to our customers. Our data center operations also rely heavily on the availability of electricity, which also comes from third-party providers. If we or the third-party data center facilities that we use to deliver our

services were to experience a major power outage or if the cost of electricity were to increase significantly, our operations and financial results could be harmed. If we or our third-party data centers were to experience a major power outage, we or they would have to rely on back-up generators, which might not work properly or might not provide an adequate supply during a major power outage. Such a power outage could result in a significant disruption of our business.

We license technology from third parties, and our inability to maintain those licenses could harm our business. Certain third-party technology that we use may be difficult to replace or could cause errors or failures of our service.

We incorporate technology that we purchase or license from third parties, including hardware and software, into our solutions. We cannot be certain that this technology will continue to be available on commercially reasonable terms, or at all. We cannot be certain that our licensors are not infringing the intellectual property rights of third parties or that our licensors have sufficient rights to the licensed intellectual property in all jurisdictions in which we may sell our solutions. Some of our agreements with our licensors may be terminated for convenience by them. If we are unable to continue to license any of this technology because of intellectual property infringement claims brought by third parties against our licensors or against us, or if we are unable to continue our license agreements or enter into new licenses on commercially reasonable terms, our ability to develop and sell solutions containing that technology would be severely limited and our business could be harmed. Additionally, if we are unable to license or obtain the necessary technology from third parties, we may be forced to acquire or develop alternative technology of lower quality or performance standards. This would limit and delay our ability to offer new or competitive solutions and increase our costs of production. In addition, errors or defects in third-party hardware or software used in our cloud-based solutions could result in errors or a failure of our cloud-based solutions, which could harm our business. If we or our solutions fail to perform properly, our reputation and customer relationships could be harmed, our market share could decline and we could be subject to liability claims.

Our solutions are inherently complex and may contain material defects or errors. Any defects in solution functionality or that cause interruptions in availability could result in:

• lost or delayed market acceptance and sales;

- reductions in current-period total revenues;

• breach of warranty or other contract breach or misrepresentation claims;

• sales credits or refunds to our customers;

• loss of customers;

• diversion of development and customer service resources; and

• injury to our reputation.

The costs incurred in correcting any material defects or errors might be substantial and could adversely affect our operating results. Because our customers often use our solutions as a system of record and many of our customers are subject to regulation of pricing of their products or otherwise have complex pricing commitments and revenue recognition policies, errors could result in an inability to process sales or lead to a violation of pricing requirements or misreporting of revenues by our customers that could potentially expose them to fines or other substantial claims or penalties. Accordingly, we could face increased exposure to product liability and warranty claims, litigation and other disputes and claims, resulting in potentially material losses and costs. Our limitation of liability provisions in our customer agreements may not be sufficient to protect us against any such claims.

Given the large amount of data that our solutions collect and manage, it is possible that failures or errors in our software could result in data loss or corruption, or cause the information that we collect to be incomplete or contain inaccuracies that our customers regard as significant. We may be required to issue credits or refunds or indemnify or otherwise be liable to our customers or third parties for damages they may incur resulting from certain of these events. Our insurance may be inadequate or may not be available in the future on acceptable terms, or at all. In addition, our policy may not cover any claim against us for claims related to any product defects or errors or other indirect or consequential damages and defending a suit, regardless of its merit, could be costly and divert management's attention. The market in which we participate is highly competitive, and if we do not compete effectively, our operating results could be harmed.

The market for revenue management solutions is highly competitive, fragmented and subject to rapid changes in technology. We face competition from spreadsheet-assisted manual processes, internally developed solutions, large integrated systems vendors, providers of business process outsourcing services and smaller companies that offer point solutions.

Companies lacking IT resources often resort to spreadsheet-assisted manual processes or personal database applications. In addition, some potential customers, particularly large enterprises, may elect to develop their own

internal solutions, including custom-built solutions that are designed to support the needs of a single organization. Companies with large investments in packaged ERP or CRM applications, which do not typically provide revenue management capabilities, may extend these horizontal applications with configurations or point solution applications in order to address one or a small set of revenue management sub

processes or drivers. Common horizontal applications that customers attempt to configure for this purpose in the life sciences and technology industries include large integrated systems vendors like SAP AG and Oracle Corporation. We also encounter competition from small independent companies, which compete on the basis of price, unique product features or functions and custom developments.

Many of our competitors have greater name recognition, larger sales and marketing budgets and greater resources than we do and may have pre-existing relationships with our potential customers, including relationships with, and access to, key decision makers within these organizations, and major distribution agreements with consultants and system integrators. Moreover, many software vendors could bundle solutions or offer them at a low price as part of a larger product sale.

With the introduction of new technologies and market entrants, we expect competition to intensify in the future. We also expect enterprise software vendors that focus on enterprise resource planning or back-office applications to enter our market with competing products. In addition, we expect sales force automation vendors to acquire or develop additional solutions that may compete with our solutions. If we fail to compete effectively, our business will be harmed. In addition, pricing pressures and increased competition generally could result in reduced sales, reduced margins, losses or the failure of our solutions to achieve or maintain more widespread market acceptance, any of which could harm our business.

If we are not able to maintain and enhance our brand, our business and operating results may be adversely affected. We believe that maintaining and enhancing the “Model N” brand identity is critical to our relationships with our customers and partners and to our ability to attract new customers and partners. The successful promotion of our brand will depend largely upon our marketing efforts, our ability to continue to offer high-quality solutions and our ability to successfully differentiate our solutions from those of our competitors. Our brand promotion activities may not be successful or yield increased revenues. In addition, independent industry analysts often provide reviews of our solution, as well as those of our competitors, and perception of our solution in the marketplace may be significantly influenced by these reviews. If these reviews are negative, or less positive as compared to those of our competitors’ products and services, our brand may be adversely affected. Further, stockholder activism has been increasing in recent years. Any such activism or public criticism of our company or management team may harm our brand and reputation.

The promotion of our brand requires us to make substantial expenditures, and we anticipate that the expenditures will increase as our market becomes more competitive and as we expand into new verticals within the life sciences and technology industries. To the extent that these activities yield increased revenues, these revenues may not offset the increased expenses we incur. If we do not successfully maintain and enhance our brand, our business may not grow, we may have reduced pricing power relative to competitors with stronger brands and we could lose customers, partners, current employees and prospective employees, all of which would adversely affect our business operations and financial results.

If we are unable to maintain successful relationships with system integrators, our business operations, financial results and growth prospects could be adversely affected.

Our relationships with system integrators are generally non-exclusive, which means they may recommend to their customers the solutions of several different companies, including solutions that compete with ours, and they may also assist in the implementation of software or systems that compete with ours. If our system integrators do not choose to continue to refer our solutions, assist in implementing our solutions, choose to use greater efforts to market and sell their own solutions or those of our competitors, or fail to meet the needs of our customers, our ability to grow our business and sell our solutions may be adversely affected. The loss of a substantial number of our system integrators, our possible inability to replace them or the failure to recruit additional system integrators could harm our business. Our ability to achieve revenue growth in the future will depend in part on our success in maintaining successful relationships with our system integrators and in helping our system integrators enhance their ability to independently market and implement our solutions. Our growth in revenues, particularly in international markets, will be influenced by the development and maintenance of relationships with these companies. Although we have established relationships with some of the leading system integrators, our solutions compete directly against the solutions of other leading system integrators. We are unable to control the resources that our system integrators commit to implementing our solutions or the quality of such implementation. If they do not commit sufficient resources to these activities, or if

we are unable to maintain our relationships with these system integrators or otherwise develop and expand our indirect distribution channel, our business, results of operations, financial condition or cash flows could be adversely affected.

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Any failure to offer high-quality customer support for our cloud platform may adversely affect our relationships with our customers and harm our financial results.

Once our solutions are implemented, our customers use our support organization to resolve technical issues relating to our solutions. In addition, we also believe that our success in selling our solutions is highly dependent on our business reputation and on favorable recommendations from our existing customers. Any failure to maintain high-quality customer support, or a market perception that we do not maintain high-quality support, could harm our reputation, adversely affect our ability to maintain existing customers or sell our solutions to existing and prospective customers, and harm our business, operating results and financial condition.

We may be unable to respond quickly enough to accommodate short-term increases in customer demand for support services. Increased customer demand for these services, without corresponding revenues, could also increase costs and adversely affect our operating results.

If our solutions do not interoperate with our customers' IT infrastructure, sales of our solutions could be negatively affected, which would harm our business.

Our solutions must interoperate with our customers' existing IT infrastructure, which often have different specifications, complex configuration, utilize multiple protocol standards, deploy products from multiple vendors and contain multiple generations of products that have been added over time. As a result, when problems occur in a network, it may be difficult to identify the sources of these problems. If we find errors in the existing products or defects in the hardware used in our customers' IT infrastructure or problematic network configurations or settings, we may have to modify our solutions or platform so that our solutions will interoperate with our customers' IT infrastructure. Any delays in identifying the sources of problems or in providing necessary modifications to our solutions could have a negative impact on our reputation and our customers' satisfaction with our solutions, and our ability to sell solutions could be adversely affected.

Incorrect or improper implementation or use of our solutions could result in customer dissatisfaction and negatively affect our business, operations, financial results and growth prospects.

Our customers and third-party partners may need training in the proper use of and the variety of benefits that can be derived from our solutions to maximize their potential. We have implemented the Model N Align Program, which gives our customers full access to expert knowledge through a portal for easy and fast access to information, experienced customer success managers and defined customer success plans, in order to help our customers maximize the value of our solutions. However, our customers may choose not to use such programs or may not use such programs efficiently or effectively and as a result may become dissatisfied with our solutions. If our solutions are not implemented or used correctly or as intended, inadequate performance may result. Since our customers rely on our solutions and customer support to manage key areas of their businesses, the incorrect or improper implementation or use of our solutions, our failure to train customers on how to efficiently and effectively use our solutions or our failure to provide services to our customers, may result in negative publicity, failure of customers to renew their SaaS maintenance agreements or subscriptions or potentially make legal claims against us. Also, as we continue to expand our customer base, any failure by us to properly provide these services will likely result in lost opportunities for follow-on sales of our solutions.

Competition for our target employees is intense, and we may not be able to attract and retain the quality employees we need to support our planned growth.

Our future success depends, in part, upon our ability to recruit and retain key management, technical, sales, marketing, finance, and other critical personnel. Competition for qualified management, technical and other personnel is intense, and we may not be successful in attracting and retaining such personnel. If we fail to attract and retain qualified employees, including internationally, our ability to grow our business could be harmed. Competition for people with the specific skills that we require is significant. In order to attract and retain personnel in a competitive marketplace, we believe that we must provide a competitive compensation package, including cash and equity-based compensation. Volatility in our stock price may from time to time adversely affect our ability to recruit or retain employees. If we are unable to hire and retain qualified employees, or conversely, if we fail to manage employee performance or reduce staffing levels when required by market conditions, our business and operating results could be adversely affected. Our significant international operations subject us to additional risks that can adversely affect our business, results of operations and financial condition.

We have significant international operations, including in emerging markets such as India, and we are continuing to expand our international operations as part of our growth strategy. As of September 30, 2018, approximately 47% of our total employees were located in India, where we conduct a portion of our development activities, implementation services and support services. Our current international operations and our plans to expand our international operations have placed, and will continue to place, a strain on our employees, management systems and other resources.

Operating in international markets requires significant resources and management attention and will subject us to regulatory, economic and political risks and competition that are different from those in the United States. Because of our limited experience with international operations, we cannot assure you that our international expansion efforts will be successful or that returns on such investments will be achieved in the future. In addition, our international operations may fail to succeed due to other risks inherent in operating businesses internationally, including:

- our lack of familiarity with commercial and social norms and customs in countries which may adversely affect our ability to recruit, retain and manage employees in these countries;
- difficulties and costs associated with staffing and managing foreign operations;
- the potential diversion of management's attention to oversee and direct operations that are geographically distant from our U.S. headquarters;
- compliance with multiple, conflicting and changing governmental laws and regulations, including employment, tax, privacy and data protection laws and regulations;
- legal systems in which our ability to enforce and protect our rights may be different or less effective than in the United States and in which the ultimate result of dispute resolution is more difficult to predict;
- greater difficulty collecting accounts receivable and longer payment cycles;
- higher employee costs and difficulty in terminating non-performing employees;
- differences in workplace cultures;
- unexpected changes in regulatory requirements;
- the need to adapt our solutions for specific countries;
- our ability to comply with differing technical and certification requirements outside the United States;
- tariffs, export controls and other non-tariff barriers such as quotas and local content rules;
- more limited protection for intellectual property rights in some countries;
- adverse tax consequences, including as a result of transfer pricing adjustments involving our foreign operations;
- fluctuations in currency exchange rates;
- anti-bribery compliance by us or our partners;
- restrictions on the transfer of funds; and
- new and different sources of competition.

Our failure to manage any of these risks successfully could harm our existing and future international operations and seriously impair our overall business.

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

Our sales contracts are primarily denominated in U.S. dollars, and therefore, substantially all of our revenues are not subject to foreign currency risk. However, a strengthening of the U.S. dollar could increase the real cost of our solutions to our customers outside of the United States, which could adversely affect our financial condition and operating results. In addition, an increasing portion of our operating expenses are incurred in India, are denominated in Indian Rupees and are subject to fluctuations due to changes in foreign currency exchange rates. While we recently began using foreign exchange forward contracts to hedge certain cash flow exposures resulting from changes in foreign currency exchange rates, this hedging strategy may not ultimately be effective and may adversely affect our financial condition and operating results.

We may be sued by third parties for alleged infringement of their proprietary rights which could result in significant costs and harm our business.

There is considerable patent and other intellectual property development activity in our industry. Our success depends upon us not infringing upon the intellectual property rights of others. Companies in the software and technology industries, including some of our current and potential competitors, own large numbers of patents, copyrights, trademarks and trade secrets and frequently enter into litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. In addition, many of these companies have the capability to dedicate substantially greater resources to enforce their intellectual property rights and to

defend claims that may be brought against them. The litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our potential patents may provide little or no deterrence. We have received, and may in the future receive, notices that claim we have infringed, misappropriated or otherwise violated other parties' intellectual property rights. To the extent we gain greater visibility, we face a higher risk of being the subject of intellectual property infringement claims, which is not uncommon with respect to software technologies in general and information security technology in particular. There may be third-party intellectual property rights, including issued or pending patents that cover significant aspects of our technologies or business methods. Any intellectual property claims, with or without merit, could be very time consuming, could be expensive to settle or litigate and could divert our management's attention and other resources. These claims could also subject us to significant liability for damages, potentially including treble damages if we are found to have willfully infringed patents or copyrights. These claims could also result in our having to stop using technology found to be in violation of a third party's rights. We might be required to seek a license for the intellectual property, which may not be available on reasonable terms or at all. Even if a license were available, we could be required to pay significant royalties, which would increase our operating expenses. As a result, we may be required to develop alternative non-infringing technology, which could require significant effort and expense. If we cannot license or develop technology for any infringing aspect of our business, we would be forced to limit or stop sales of one or more of our solutions or features of our solutions and may be unable to compete effectively. Any of these results would harm our business, operating results and financial condition.

In addition, our agreements with customers and partners include indemnification provisions under which we agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement and, in some cases, for damages caused by us to property or persons. Large indemnity payments could harm our business, operating results and financial condition.

Our use of open source and third-party technology could impose limitations on our ability to commercialize our solutions.

We use open source software in our solutions and in our services engagements on behalf of customers. As we increasingly handle configured implementation of our solutions on behalf of customers, we use additional open source software that we obtain from all over the world. Although we try to monitor our use of open source software, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market our solutions. In such event, we could be required to seek licenses from third parties in order to continue offering our solutions, to re-engineer our technology or to discontinue offering our solutions in the event re-engineering cannot be accomplished on a timely basis, any of which could cause us to breach contracts, harm our reputation, result in customer losses or claims, increase our costs or otherwise adversely affect our business, operating results and financial condition.

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

Any failure to protect our intellectual property rights could impair our ability to protect our proprietary technology and our brand, which would substantially harm our business and operating results.

The success of our business and the ability to compete depend in part upon our ability to protect and enforce our patents, trade secrets, trademarks, copyrights and other intellectual property rights. We primarily rely on patent, copyright, trade secret and trademark laws, trade secret protection and confidentiality or license agreements with our employees, customers, partners and others to protect our intellectual property rights. However, the steps we take to protect our intellectual property rights may be inadequate or we may be unable to secure intellectual property protection for all of our solutions. Any of our copyrights, trademarks or other intellectual property rights may be challenged by others or invalidated through administrative process or litigation. Competitors may independently develop technologies or solutions that are substantially equivalent or superior to our solutions or that inappropriately incorporate our proprietary technology into their solutions. Competitors may hire our former employees who may misappropriate our proprietary technology or misuse our confidential information. Although we rely in part upon confidentiality agreements with our employees, consultants and other third parties to protect our trade secrets and other confidential information, those agreements may not effectively prevent disclosure of trade secrets and other confidential information and may not provide an adequate remedy in the event of misappropriation of trade secrets or unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and confidential information, and in such cases we could not assert any trade secret rights against such parties.

In order to protect our intellectual property rights, we may be required to spend significant resources to monitor and protect these rights. Litigation to protect and enforce our intellectual property rights 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. 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, operating results and financial condition. Certain jurisdictions may not provide adequate legal infrastructure for effective protection of our intellectual property rights. Changing legal interpretations of liability for unauthorized use of our solutions or lessened sensitivity by corporate, government or institutional users to refraining from intellectual property piracy or other infringements of intellectual property could also harm our business.

It is possible that innovations for which we seek patent protection may not be protectable. 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. Given the cost, effort, risks and downside of obtaining patent protection, including the requirement to ultimately disclose the invention to the public, we may not choose to seek patent protection for certain innovations. However, such patent protection could later prove to be

important to our business. Even if issued, there can be no assurance that any patents will have the coverage originally sought or 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 be invalidated or otherwise limited, or may lapse or may be abandoned, enabling other companies to better develop products that compete with our solutions, which could adversely affect our competitive business position, business prospects and financial condition.

We cannot assure you that the measures we have taken to protect our intellectual property will adequately protect us, and any failure to protect our intellectual property could harm our business.

We may not be able to enforce our intellectual property rights throughout the world, which could adversely impact our international operations and business.

The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection. This could make it difficult for us to stop the infringement or misappropriation of our intellectual property rights. Proceedings to enforce our proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop, which could have a material adverse effect on our business, financial condition and results of operations. Changes to government regulations may reduce the size of the market for our solutions, harm demand for our solutions, force us to update our solutions or implement changes in our services and increase our costs of doing business.

Any changes in government regulations that impact our customers or their end customers could have a harmful effect on our business by reducing the size of our addressable market, forcing us to update the solutions we offer or otherwise increasing our costs. For example, with respect to our life sciences customers, regulatory developments related to government-sponsored entitlement programs or U.S. Food and Drug Administration or foreign equivalent regulation of, or denial, withholding or withdrawal of approval of, our customers' products could lead to a lack of demand for our solutions. Other changes in government regulations, in areas such as privacy, export compliance or anti-bribery statutes, such as the U.S. Foreign Corrupt Practices Act, could require us to implement changes in our solutions, services or operations that increase our cost of doing business and thereby adversely affecting our financial performance.

Failure to comply with certain certifications and standards pertaining to our solutions, as may be required by governmental authorities or other standards-setting bodies could harm our business. Additionally, failure to comply with governmental laws and regulations could harm our business.

Customers may require our solutions to comply with certain security or other certifications and standards, which are promulgated by governmental authorities or other standards-setting bodies. The requirements necessary to comply with these certifications and standards are complex and often change significantly. If our solutions are late in achieving or fail to achieve compliance with these certifications and standards, including when they are revised or otherwise change, or our competitors achieve compliance with these certifications and standards, we may be disqualified from selling our solutions to such customers, or at a competitive disadvantage, which would harm our business, operating results and financial condition.

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

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

In addition, various countries regulate the import of certain encryption technology, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our solutions or could limit our customers' ability to implement our solutions in those countries. Changes in our solutions or changes in export and import regulations may create delays in the introduction of our solutions into international markets, prevent our

customers with international operations from deploying our solutions globally or, in some cases, prevent the export or import of our solutions to certain countries, governments or person's altogether. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could result in decreased use of our solutions by, or in our decreased ability to export or sell our solutions to, existing or potential customers with international operations. Any decreased use of our solutions or limitation on our ability to export or sell our solutions would likely adversely affect our business, financial condition, and operating results.



If we are required to collect sales and use taxes on the solutions we sell, we may be subject to liability for past sales and our future sales may decrease.

State and local taxing jurisdictions have differing rules and regulations governing sales and use taxes, and these rules and regulations are subject to varying interpretations that may change over time. In particular, the applicability of sales taxes to our subscription services in various jurisdictions is unclear. Although we have historically collected and remitted sales tax in certain circumstances, it is possible that we could face sales tax audits and that our liability for these taxes could exceed our estimates as state tax authorities could still assert that we are obligated to collect additional amounts as taxes from our customers and remit those taxes to those authorities. We could also be subject to audits with respect to state and international jurisdictions for which we have not accrued tax liabilities. A successful assertion that we should be collecting additional sales or other taxes on our services in jurisdictions where we have not historically done so and do not accrue for sales taxes could result in substantial tax liabilities for past sales, discourage customers from purchasing our solutions or otherwise harm our business and operating results.

Uncertainty in global economic conditions may adversely affect our business, operating results or financial condition. Our operations and performance depend on global economic conditions. Challenging or uncertain economic conditions make it difficult for our customers and potential customers to accurately forecast and plan future business activities, and may cause our customers and potential customers to slow or reduce spending, or vary order frequency, on our solutions. Furthermore, during challenging or uncertain economic times, our customers may face difficulties gaining timely access to sufficient credit and experience decreasing cash flow, which could impact their willingness to make purchases and their ability to make timely payments to us. Global economic conditions have in the past and could continue to have an adverse effect on demand for our solutions, including new bookings and renewal and upsell rates, on our ability to predict future operating results and on our financial condition and operating results. If global economic conditions remain uncertain or deteriorate, it may materially impact our business, operating results and financial condition.

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

Our corporate headquarters and facilities are located near known earthquake fault zones and are vulnerable to significant damage from earthquakes. The corporate headquarters and facilities are also vulnerable to damage or interruption from human error, intentional bad acts, earthquakes, hurricanes, floods, fires, war, terrorist attacks, power losses, hardware failures, systems failures, telecommunications failures and similar events. The occurrence of a natural disaster or an act of terrorism or vandalism or other misconduct or other unanticipated problems with our facilities could result in lengthy interruptions to our services. If any disaster were to occur, our ability to operate our business at our facilities could be seriously or completely impaired or destroyed. The insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions.

Our financial results may be adversely affected by changes in accounting principles generally accepted in the United States.

Generally accepted accounting principles in the United States (U.S. GAAP) is subject to interpretation by the Financial Accounting Standards Board (FASB), the American Institute of Certified Public Accountants, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. For example, in May 2014, the FASB issued accounting standards update No. 2014-09 (Topic 606), Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. We will be required to implement this guidance in the first quarter of our fiscal year 2019. Any difficulties in implementing this guidance could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us. Additionally, the implementation of this guidance or a change in other principles or interpretations could have a significant effect on our financial results, and could affect the reporting of transactions completed before the announcement of a change. Furthermore, we will be adopting Topic 606 through the modified retrospective method. This will impact the comparability of our financial results which might lead investors to draw incorrect conclusions which could harm investor interest in holding or purchasing our equity.

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

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. For example, our revenue recognition policy is complex and we often must make estimates and assumptions that could prove to be inaccurate. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about revenue recognition, capitalized software, the carrying values of assets, taxes, liabilities, equity, revenues and expenses that are not readily apparent from other sources. Our operating results may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors, resulting in a decline in our stock price. Significant assumptions and estimates used in preparing our Consolidated Financial Statements include those related to revenue recognition, share-based compensation and income taxes.

We incur significant costs and devote substantial management time as a result of operating as a public company. As a public company, we incur significant legal, accounting and other expenses. For example, we are required to comply with the requirements of the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley Act) and the Dodd Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the Securities and Exchange Commission (SEC) and the New York Stock Exchange, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Compliance with these requirements results in legal and financial compliance costs and make some activities more time consuming.

Additionally, as of September 30, 2018, we were no longer an "emerging growth company" and are now required to comply with additional disclosure and reporting requirements, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. We are also required to include additional information regarding executive compensation in our proxy statements and begin holding nonbinding advisory votes on executive compensation. These additional reporting requirements may increase our legal and financial compliance costs and cause management and other personnel to divert attention from operational and other business matters to devote substantial time to these public company requirements.

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

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934 (Exchange Act), the Sarbanes-Oxley Act and the rules and regulations of the applicable listing exchange. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting and financial compliance costs, make some activities more difficult, time consuming and costly, and place significant strain on our personnel, systems and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, weaknesses in our internal controls may be discovered in the future. Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal controls also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we are required to include in our periodic reports we file with the SEC under Section 404 of the Sarbanes-Oxley Act. For example, our

independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed or operating. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock.

In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs, and provide significant management oversight. Any failure to maintain the adequacy of our internal controls, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could

materially impair our ability to operate our business. In the event that our internal controls are perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and our stock price could decline. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the New York Stock Exchange.

We may need additional capital, and we cannot be certain that additional financing will be available.

We may require additional financing in the future to operate or expand our business, acquire assets or repay or refinance our existing debt. Our ability to obtain financing will depend, among other things, on our development efforts, business plans, operating performance and condition of the capital markets at the time we seek financing. We cannot assure you that additional financing will be available to us on favorable terms when required, or at all.

Additionally, under our credit agreement, we are restricted from incurring additional debt, subject to certain exceptions. If we raise additional funds through the issuance of equity, equity-linked or debt securities, those securities may have rights, preferences or privileges senior to the rights of our common stock or preferred stock, and our stockholders may experience dilution.

If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our solutions;
- continue to expand our sales and marketing and research and development organizations;
- repay or refinance our existing debt;
- acquire complementary technologies, solutions or businesses;
- expand operations, in the United States or internationally;
- hire, train and retain employees; or
- respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could seriously harm our business, financial condition, and operating results.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the U.S. Internal Revenue Code of 1986, as amended (Code), and similar state law provisions, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses (NOLs) to offset future taxable income. If our existing NOLs are subject to limitations arising from ownership changes, our ability to utilize NOLs could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, also could result in an ownership change under Section 382 of the Code. There is also a risk that our NOLs could expire, or otherwise be unavailable to offset future income tax liabilities due to changes in the law, including regulatory changes, such as suspensions on the use of NOLs or other unforeseen reasons. For these reasons, we may not be able to utilize a material portion of the NOLs, even if we attain profitability. For example, certain of our NOLs started expiring in 2016.

#### Risks Related to the Ownership of Our Common Stock

Our stock price may be volatile, and you may be unable to sell your shares at or above your purchase price.

The market price of our common stock could be subject to wide fluctuations in response to, among other things, the factors described in this “Risk Factors” section or otherwise and other factors beyond our control, such as fluctuations in the valuations of companies perceived by investors to be comparable to us and stockholder activism.

Furthermore, the stock markets have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations, as well as general economic, systemic, political and market conditions, such as recessions, interest rate changes or international currency fluctuations, may negatively affect the market price of our common stock.

In the past, many companies that have experienced volatility in the market price of their stock have become subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management’s attention, which could harm our business.

If securities analysts do not publish research or reports or if they publish unfavorable or inaccurate research about our business and our stock, the price of our stock and the trading volume could decline.

We expect that the trading market for our common stock will be affected by research or reports that industry or financial analysts publish about us or our business. There are many large, well-established companies active in our industry and portions of the markets in which we compete, which may mean that we receive less widespread analyst coverage than our competitors. If one or more of the analysts who covers us downgrades their evaluations of our company or our stock, the price of our stock could decline. If one or more of these analysts cease coverage of our company, our stock may lose visibility in the market, which in turn could cause our stock price to decline.

Our restated certificate of incorporation and restated bylaws and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our restated certificate of incorporation and restated bylaws contain provisions that could delay or prevent a change in control of us. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- providing for a classified board of directors with staggered, three-year terms;
- authorizing the board of directors to issue, without stockholder approval, preferred stock with rights senior to those of our common stock;
- providing that vacancies on our board of directors be filled by appointment by the board of directors;
- prohibiting stockholder action by written consent;
- requiring that certain litigation must be brought in Delaware;
- limiting the persons who may call special meetings of stockholders; and
- requiring advance notification of stockholder nominations and proposals.

In addition, we are subject to Section 203 of the Delaware General Corporation Law which may prohibit large stockholders, in particular those owning fifteen percent or more of our outstanding voting stock, from merging or combining with us for a certain period of time without the consent of our board of directors.

These and other provisions in our restated certificate of incorporation and our restated bylaws and under the Delaware General Corporation Law could discourage potential takeover attempts, reduce the price that investors might be willing to pay in the future for shares of our common stock and result in the market price of our common stock being lower than it would be without these provisions.

We do not anticipate paying any dividends on our common stock.

We do not anticipate paying any cash dividends on our common stock in the foreseeable future. If we do not pay cash dividends, you would receive a return on your investment in our common stock only if the market price of our common stock is greater at the time you sell your shares than the market price at the time you bought your shares.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds  
None.

Item 3. Defaults Upon Senior Securities  
None.

Item 4. Mine Safety Disclosures  
Not Applicable.

Item 5. Other Information  
None.

Item 6. Exhibits

The following documents are filed as Exhibits to this report:

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	File No.	Exhibit Filing Date	
10.1	<u>Employment agreement dated July 28, 2017 by and between Registrant and Neeraj Gokhale.</u>				x
10.2	<u>Employment agreement dated March 31, 2016 by and between Registrant and Mark Anderson.</u>				x
10.3	<u>Change in Control and Severance Agreement filed on February 6, 2017.</u>	8-K	001-35840	10.1 2/6/2017	
31.1	<u>Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.</u>				x
31.2	<u>Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.</u>				x
32.1*	<u>Certification of Chief Executive Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350</u>				x
32.2*	<u>Certification of Chief Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.</u>				x
101.INS	XBRL Instance Document				x
101.SCH	XBRL Taxonomy Extension Schema 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

This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the \*liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

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SIGNATURES

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

Date: February 6, 2019

MODEL N INC.

By: /s/ David Barter

David Barter

Chief Financial Officer

(Principal Financial Officer and Accounting Officer)