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 March 31, 2020

OR

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

For the transition period from ____ to ____

Commission File Number: 001-38098

APPIAN CORPORATION
(Exact Name of Registrant as Specified in its Charter)

Delaware	**54-1956084**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
7950 Jones Branch Drive **McLean, VA**	**22102**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (703) 442-8844

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

Title of each class	Trading symbol	Name of each exchange on which registered
Class A Common Stock	APPN	The Nasdaq Stock Market LLC

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

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

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Small 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 May 4, 2020, there were 34,747,787 shares of the registrant’s Class A common stock and 32,913,836 shares of the registrant’s Class B common stock, each with a par value of $0.0001 per share, outstanding.

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PART I—FINANCIAL INFORMATION

Item 1. FINANCIAL STATEMENTS

APPIAN CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	As of	
	March 31, 2020 (unaudited)	December 31, 2019
Assets		
Current assets		
Cash and cash equivalents	$ 149,163	$ 159,755
Accounts receivable, net of allowance of $800 and $600 as of March 31, 2020 and December 31, 2019, respectively	65,153	70,408
Deferred commissions, current	14,686	14,543
Prepaid expenses and other current assets	26,469	32,955
Total current assets	255,471	277,661
Property and equipment, net	38,325	39,554
Goodwill	4,348	—
Intangible assets, net of accumulated amortization of $96 as of March 31, 2020	1,847	—
Operating right-of-use assets	23,340	24,205
Deferred commissions, net of current portion	28,311	28,979
Deferred tax assets	456	494
Other assets	7,364	592
Total assets	$ 359,462	$ 371,485
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 3,580	$ 5,222
Accrued expenses	7,536	7,488
Accrued compensation and related benefits	10,074	10,691
Deferred revenue, current	81,279	82,201
Operating lease liabilities, current	3,755	3,836
Finance lease liabilities, current	1,466	1,447
Other current liabilities	1,160	1,395
Total current liabilities	108,850	112,280
Operating lease liabilities, net of current portion	44,778	44,416
Finance lease liabilities, net of current portion	1,998	2,375
Deferred revenue, net of current portion	5,684	7,139
Deferred tax liabilities	421	38
Total liabilities	161,731	166,248
Stockholders' equity		
Class A common stock—par value $0.0001; 500,000,000 shares authorized and 34,731,245 shares issued and outstanding as of March 31, 2020; 500,000,000 shares authorized and 34,525,386 shares issued and outstanding as of December 31, 2019	3	3
Class B common stock—par value $0.0001; 100,000,000 shares authorized and 32,913,836 shares issued and outstanding as of March 31, 2020; 100,000,000 shares authorized and 32,942,636 shares issued and outstanding as of December 31, 2019	3	3
Additional paid-in capital	345,075	340,929
Accumulated other comprehensive loss	(268)	(285)
Accumulated deficit	(147,082)	(135,413)
Total stockholders' equity	197,731	205,237
Total liabilities and stockholders' equity	$ 359,462	$ 371,485

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

APPIAN CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited, in thousands, except share and per share data)

	Three Months Ended March 31,	
	2020	**2019**
Revenue		
Subscriptions	$ 50,436	$ 34,557
Professional services	28,428	25,747
Total revenue	78,864	60,304
Cost of revenue		
Subscriptions	5,383	3,585
Professional services	18,736	20,481
Total cost of revenue	24,119	24,066
Gross profit	54,745	36,238
Operating expenses		
Sales and marketing	34,172	28,591
Research and development	16,038	13,956
General and administrative	13,141	9,016
Total operating expenses	63,351	51,563
Operating loss	(8,606)	(15,325)
Other expense (income)		
Other expense (income), net	3,114	(302)
Interest expense	143	71
Total other expense (income)	3,257	(231)
Loss before income taxes	(11,863)	(15,094)
Income tax (benefit) expense	(194)	122
Net loss	$ (11,669)	$ (15,216)
Net loss per share:		
Basic and diluted	$ (0.17)	$ (0.24)
Weighted average common shares outstanding:		
Basic and diluted	67,528,331	64,306,667

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

APPIAN CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(unaudited, in thousands)

	Three Months Ended March 31,	
	2020	**2019**
Net loss	$ (11,669)	$ (15,216)
Comprehensive income (loss), net of income taxes:		
Foreign currency translation adjustment	17	296
Total other comprehensive loss, net of income taxes	$ (11,652)	$ (14,920)

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

APPIAN CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(unaudited, in thousands, except share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance, January 1, 2020	67,468,022	6	340,929	(285)	(135,413)	$ 205,237
Net loss	—	—	—	—	(11,669)	(11,669)
Issuance of common stock to directors	1,946	—	—	—	—	—
Vesting of restricted stock units	46,031	—	—	—	—	—
Exercise of stock options	129,082	—	670	—	—	670
Stock-based compensation expense	—	—	3,476	—	—	3,476
Other comprehensive income	—	—	—	17	—	17
Balance, March 31, 2020	67,645,081	6	345,075	(268)	(147,082)	197,731
Balance, January 1, 2019	63,916,437	$ 6	$ 218,284	$ 542	(145,640)	73,192
Cumulative effect of adoption of ASC 606	—	—	—	—	60,941	60,941
Net loss	—	—	—	—	(15,216)	(15,216)
Issuance of common stock to directors	3,461	—	—	—	—	—
Vesting of restricted stock units	482,444	—	—	—	—	—
Exercise of stock options	278,680	—	1,073	—	—	1,073
Stock-based compensation expense	—	—	7,225	—	—	7,225
Other comprehensive income	—	—	—	296	—	296
Balance, March 31, 2019	64,681,022	$ 6	$ 226,582	$ 838	$ (99,915)	$ 127,511

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

APPIAN CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited, in thousands)

	Three Months Ended March 31,	
	2020	**2019**
Cash flows from operating activities:		
Net loss	$ (11,669)	$ (15,216)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,511	798
Bad debt expense	200	—
Loss on disposal of property and equipment	7	—
Deferred income taxes	—	(3)
Stock-based compensation	3,476	7,225
Changes in assets and liabilities:		
Accounts receivable	5,751	(844)
Prepaid expenses and other assets	37	1,252
Deferred commissions	525	(2,895)
Accounts payable and accrued expenses	(1,800)	1,577
Accrued compensation and related benefits	(399)	(1,485)
Other current liabilities	(154)	(138)
Deferred revenue	(2,503)	1,908
Operating lease liabilities	1,159	—
Deferred rent, non-current	—	3,698
Net cash used in operating activities	(3,859)	(4,123)
Cash flows from investing activities:		
Payments for acquisitions, net of cash acquired	(6,138)	—
Purchases of property and equipment	(202)	(16,595)
Net cash used in investing activities	(6,340)	(16,595)
Cash flows from financing activities:		
Principal payments on finance leases	(357)	—
Proceeds from exercise of common stock options	670	1,073
Net cash provided by financing activities	313	1,073
Effect of foreign exchange rate changes on cash and cash equivalents	(706)	68
Net decrease in cash and cash equivalents	(10,592)	(19,577)
Cash and cash equivalents, beginning of period	159,755	94,930
Cash and cash equivalents, end of period	$ 149,163	$ 75,353
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 49	$ 69
Cash paid for income taxes	$ 43	$ 43

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

1. Organization and Description of Business

Appian Corporation (together with its subsidiaries, “Appian,” the “Company,” “we” or “our”) provides a low-code automation platform that accelerates the creation of high-impact business applications, enabling our customers to automate the most important aspects of their business. Global organizations use our applications to improve customer experience, achieve operational excellence, and simplify global risk management and compliance. We were incorporated in the state of Delaware in August 1999. We are headquartered in McLean, Virginia and operate in Canada, Switzerland, the United Kingdom, France, Germany, the Netherlands, Italy, Australia, Spain, Singapore, and Sweden.

2. Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements and footnotes have been prepared in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”) as contained in the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) for interim financial information. In the opinion of management, the interim financial information includes all adjustments of a normal recurring nature necessary for a fair presentation of the results of operations, financial position, changes in stockholders’ equity, and cash flows. The results of operations for the current period are not necessarily indicative of the results for the full year or the results for any future periods. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and related footnotes included in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the Securities and Exchange Commission (the “SEC”) on February 20, 2020.

We adopted ASC 606, the new revenue recognition guidance, on January 1, 2019 using the modified retrospective method. Under this method of adoption, we recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of accumulated deficit and applied the new standard only to contracts that were not completed prior January 1, 2019.

Because we were an emerging growth company until December 31, 2019, the Jumpstart Our Business Startups Act allowed us to delay adoption of ASC 606 until such time it was made applicable to private companies. We elected to use this extended transition period, and accordingly, did not report revenues under ASC 606 in our Quarterly Reports on Form 10-Q during 2019. Refer to our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020, for a complete reconciliation of our revenues under the old and new guidance. Prior period revenue amounts in this Form 10-Q have been recast as if we had reported under ASC 606 for the applicable periods.

Use of Estimates

The preparation of our condensed consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and judgments that affect the amounts reported in these condensed consolidated financial statements and accompanying notes. Although we believe the estimates we use are reasonable, due to the inherent uncertainty involved in making these estimates, actual results reported in future periods could differ from those estimates.

Significant estimates embedded in the condensed consolidated financial statements include revenue recognition, income taxes and the related valuation allowance, the valuation of goodwill and intangible assets, and stock-based compensation.

The outbreak of the novel coronavirus disease ("COVID-19") has resulted in the declaration of a global pandemic and introduced a level of disruption and uncertainty into the financial markets and global economy. While we continue to monitor the developments surrounding the pandemic, as of the date of issuance of these financial statements, we are not aware of any specific events or circumstances that would require us to update our estimates, assumptions, and judgments or revise the carrying value of our assets or liabilities. However, the ultimate impact of COVID-19 on our business is not estimable at this time and will be largely dependent upon a number of factors outside of our control including the extent and duration of the outbreak as well as any mitigating actions which may be undertaken by global governments and the general public.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of Appian and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Revenue Recognition

Refer to Note 3 for a detailed discussion on specific revenue recognition principles related to our major revenue streams.

Cost of Revenue

Subscriptions

Cost of subscriptions revenue consists primarily of fees paid to our third-party managed hosting providers and other third-party service providers, personnel costs such as payroll and benefits for our technology operations and customer support teams, and allocated facility costs and overhead.

Professional Services

Cost of professional services revenue includes all direct and indirect costs to deliver our professional services and training, including employee compensation for our global professional services and training personnel, travel costs, third-party contractor costs, and allocated facility costs and overhead.

Concentration of Credit and Customer Risk

Our financial instruments exposed to concentration of credit and customer risk consist primarily of cash and cash equivalents and trade accounts receivable. Deposits held with banks may exceed the amount of insurance provided on such deposits. We believe the financial institutions holding our cash deposits are financially sound and, accordingly, minimal credit risk exists with respect to these balances.

With regard to our customers, credit evaluation and account monitoring procedures are used to minimize the risk of loss. We believe no additional credit risk beyond amounts provided for collection loss are inherent in accounts receivable. When accounted for under ASC 606, revenue generated from government agencies represented 14.9% and 17.8% of our revenue for the three months ended March 31, 2020 and March 31, 2019, respectively, of which the top three federal government agencies generated 6.0% and 8.5% of our revenue for the three months ended March 31, 2020 and March 31, 2019, respectively. Additionally, 33.5% and 31.9% of our revenue during the three months ended March 31, 2020 and March 31, 2019, respectively, was generated from foreign customers.

Cash and Cash Equivalents

We consider all highly liquid investments with an original or remaining maturity of three months or less at the date of purchase, as well as overnight repurchase investments, to be cash equivalents.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are stated at realizable value, net of an allowance for doubtful accounts. The allowance for doubtful accounts is based on our assessment of the collectability of accounts and incorporates an estimation of expected lifetime credit losses on our receivables. We regularly review the composition of the accounts receivable aging, historical bad debts, changes in payment patterns, customer creditworthiness, and current economic trends. If the financial condition of our customers were to deteriorate, resulting in their inability to make required payments, additional provisions for doubtful accounts would be required and would increase bad debt expense. To date, our allowance and related bad debt write-offs have been nominal. There was a $0.2 million increase in the allowance for doubtful accounts from December 31, 2019 to March 31, 2020.

Assets Recognized from the Costs to Obtain a Contract with a Customer

We capitalize the incremental costs of obtaining a contract with a customer, including sales commissions paid to our direct sales force that are incremental costs to obtaining customer contracts. These costs are recorded as deferred commissions in the condensed consolidated balance sheets. Costs to obtain a contract for a new customer or upsell are amortized on a straight-line basis over an estimated economic life of five years as sales commissions on initial sales are not commensurate with sales commissions on contract renewals. We determine the estimated economic life based on both qualitative and quantitative factors such as expected renewals, product life cycles, contractual terms, and customer attrition. We periodically review the carrying amount of deferred contract acquisition costs to determine whether events or changes in circumstances have occurred that could impact the estimated economic life. Commissions paid relating to contract renewals are deferred and amortized on a straight-line basis over the related renewal period. We also capitalize the incremental fringe benefits associated with commission expenses paid to our direct sales force. Costs to obtain a contract for professional services arrangements are expensed as incurred as the contractual period of our professional services arrangements are one year or less.

Amortization associated with commission expense is recorded to sales and marketing costs in our condensed consolidated statements of operations. Commission expense was $5.3 million and $3.1 million for the three months ended March 31, 2020 and March 31, 2019, respectively.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Significant additions or improvements extending the useful life of an asset are capitalized, while repairs and maintenance costs which do not significantly improve the related assets or extend their useful lives are charged to expense as incurred.

The following table outlines useful lives of our major asset categories:

Asset Category	Useful Life (in years)
Computer software	3
Computer hardware	3
Equipment	5
Office furniture and fixtures	10
Leasehold improvements	(a)

(a) - Leasehold improvements have an estimated useful life of the shorter of the useful life of the assets or the lease term.

Impairment of Long-Lived Assets

Long-lived assets and certain intangible assets are reviewed for impairment whenever events or circumstances indicate the carrying amount of an asset may not be recoverable through undiscounted cash flows from the use of the assets. If such assets are considered to be impaired, the assets are written down to their estimated fair value. No indicators of impairment were identified for the three months ended March 31, 2020 and March 31, 2019.

Fair Value of Financial Instruments

The carrying amounts of our cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses approximate fair value as of March 31, 2020 and December 31, 2019 because of the relatively short duration of these instruments. Our line of credit is recorded at carrying value, which approximates fair value.

We use a three-tier fair value hierarchy to classify and disclose all assets and liabilities measured at fair value on a recurring basis, as well as assets and liabilities measured at fair value on a non-recurring basis, in periods subsequent to their initial measurement. The hierarchy requires us to use observable inputs when available and to minimize the use of unobservable inputs when determining fair value. The three tiers are defined as follows:

- **Level 1.** Observable inputs based on unadjusted quoted prices in active markets for identical assets or liabilities;
- **Level 2.** Inputs other than quoted prices in active markets that are observable either directly or indirectly; and
- **Level 3.** Unobservable inputs for which there is little or no market data, which require us to develop our own assumptions.

Assets and Liabilities Measured at Fair Value on a Recurring Basis Using Significant Unobservable Inputs

There were no instruments measured at fair value on a recurring basis using significant unobservable inputs as of March 31, 2020 and December 31, 2019.

Stock-Based Compensation

We account for stock-based compensation expense related to stock-based awards based on the estimated fair value of the award on the grant date. We calculate the fair value of stock options containing only a service condition using the Black-Scholes Option Pricing Model. The fair value of restricted stock units is based on the closing market price of our common stock on the Nasdaq Global Market on the date of grant. For service-based awards, stock-based compensation expense is recognized on a straight-line basis over the requisite service period. For performance-based awards, stock-based compensation expense is recognized using the accelerated attribution method based on the probability of satisfying the performance condition. For awards that contain market conditions, compensation expense is measured using a Monte Carlo simulation and recognized using the accelerated attribution method over the derived service period based on the expected market performance as of the grant date. For restricted stock units, stock-based compensation expense is recognized on a straight-line basis over the requisite service period. We account for forfeitures as they occur rather than estimating expected forfeitures.

Leases

Refer to Note 4 for a detailed discussion on our policies specific to leasing arrangements.

Recent Accounting Pronouncements

Adopted

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments-Credit Losses (Topic 326)* ("ASU 2016-13"), which requires entities to measure all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. This replaces the existing incurred loss model and is applicable to the measurement of credit losses on financial assets measured at amortized cost. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early application is permitted for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Adopting the standard did not have a material impact on our condensed consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which eliminates, modifies, and adds disclosure requirements for fair value measurements. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early application is permitted. Adopting the standard did not have a material impact on our condensed consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40), Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract*, which aligns the requirements for capitalizing implementation costs in cloud computing arrangements with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Entities can choose to adopt the new guidance prospectively or retrospectively. Adopting the standard did not have a material impact on our condensed consolidated financial statements.

3. Revenue

Revenue Recognition

We generate subscriptions revenue primarily through the sale of software as a service ("SaaS") subscriptions bundled with maintenance and support and hosting services as well as term license subscriptions bundled with maintenance and support. We generate professional services revenue from fees for our consulting services, including application development and deployment assistance as well as training related to our platform.

The following table summarizes revenue from contracts with customers for the three months ended March 31, 2020 and March 31, 2019 (in thousands):

	Three Months Ended March 31,	
	2020	2019
SaaS subscriptions	$ 28,390	$ 21,278
Term license subscriptions	17,793	9,557
Maintenance and support	4,253	3,722
Professional services	28,428	25,747
Total revenue	$ 78,864	$ 60,304

Performance Obligations and Timing of Revenue Recognition

We primarily sell products and services that fall into the categories discussed below. Each category contains one or more performance obligations that are either (1) capable of being distinct (i.e., the customer can benefit from the product or service on its own or together with readily available resources, including those purchased separately from us) and distinct within the context of the contract (i.e., separately identified from other promises in the contract) or (2) a series of distinct products or services that are substantially the same and have the same pattern of transfer to the customer. Our term license subscriptions are delivered at a point in time while our SaaS subscriptions, maintenance and support, and professional services are delivered over time.

Subscriptions Revenue

Subscriptions revenue is primarily related to (1) SaaS subscriptions bundled with maintenance and support and hosting services and (2) term license subscriptions bundled with maintenance and support. We generally charge subscription fees on a per-user basis and, to a lesser degree, non-user based single application licenses. We bill customers and collect payment for subscriptions to our platform in advance on an annual, quarterly, or monthly basis. In certain instances, our customers have paid their entire contract up front.

SaaS Subscriptions

We generate cloud-based subscription revenue primarily from the sales of subscriptions to access our cloud offering, together with related support services to our customers. We perform all required maintenance and support for our cloud offering, and we do not separately charge customers for hosting costs. Revenue is recognized on a ratable basis over the contract term beginning on the date the service is made available to the customer. Our cloud-based subscription contracts generally have a term of one to three years in length. We bill customers and collect payment for subscriptions to our platform in advance, and they are non-cancellable.

Term License Subscriptions

Our term license subscription revenue is derived from customers with on-premise installations of our platform pursuant to contracts that were historically one to three years in length. The majority of recent contracts have been one year in length. Although term license subscriptions are sold with maintenance and support, the software is fully functional at the beginning of the subscription and is considered a distinct performance obligation. On rare occasions, a cloud-based subscription may include the right for the customer to take possession of the license and as such, the revenue is treated as a license. Revenue from term license subscriptions is recognized when control of the software license has transferred to the customer, which is the later of delivery or commencement of the contract term.

Maintenance and Support

Maintenance and support subscriptions include both technical support and when-and-if-available software upgrades, which are treated as a single performance obligation as they are considered a series of distinct services that are substantially the same and have the same duration and measure of progress. Revenue from maintenance and support is recognized ratably over the contract period, which is the period over which the customer has continuous access to maintenance and support.

Professional Services

Our professional services revenue is comprised of fees for consulting services, including application development and deployment assistance as well as training services related to our platform. Our professional services are considered distinct performance obligations when sold stand alone or with other products.

Consulting Services

We sell consulting services to assist customers in planning and executing the deployment of our software. Customers are not required to use consulting services to fully benefit from the software. Consulting services are regularly sold on a standalone basis and either (1) under a fixed-fee arrangement or (2) on a time and materials basis. Consulting contracts are each considered separate performance obligations because they do not integrate with each other or with other products and services to deliver a combined output to the customer, do not modify or customize (or are not modified or customized by) each other or other products and services, and do not affect the customer's ability to use the other consulting offerings or other products and services. Revenue under consulting contracts is recognized over time as services are delivered. For time and materials-based consulting contracts, we have elected the practical expedient of recognizing revenue upon invoicing since the invoiced amount corresponds directly to the value of our service to-date.

Training Services

We sell various training services to our customers. Training services are sold in the form of prepaid training credits that are redeemed based on a fixed rate per course. Training revenue is recognized when the associated training services are delivered.

Significant Judgments and Estimates

Determining the Transaction Price

The transaction price includes both fixed and variable consideration. Variable consideration is included in the transaction price to the extent it is probable a significant reversal will not occur. The amount of variable consideration excluded from the transaction price for the three months ended March 31, 2020 was insignificant. Our estimates of variable consideration are also subject to subsequent true-up adjustments and may result in changes to transaction prices; however, such true-up adjustments are not expected to be material.

Allocating the Transaction Price Based on Standalone Selling Prices ("SSP")

We allocate the transaction price to each performance obligation in a contract based on its relative SSP. The SSP is the observable price at which we sell the product or service separately. In the absence of observable pricing, we estimate SSP using the residual approach. We establish SSP as follows:

1. SaaS subscriptions - Given the highly variable selling price of our SaaS subscriptions, we establish the SSP of our SaaS subscriptions using a residual approach after first determining the SSP of consulting and training services. We have concluded the residual approach to estimating SSP of our SaaS subscriptions is an appropriate allocation of the transaction price.

2. Term license subscriptions - Given the highly variable selling price of our term license subscriptions, we have established SSP of term license subscriptions using a residual approach after first determining the SSP of maintenance and support. Maintenance and support is sold on a standalone basis in conjunction with renewals of our legacy perpetual software licenses and within a narrow range of the net license fee. Because an economic relationship exists between the license and maintenance and support, we have concluded the residual approach to estimating SSP of term license subscriptions is an appropriate allocation of the transaction price.

3. Maintenance and support - We establish SSP of maintenance and support as a percentage of the stated net subscription fee based on observable pricing of maintenance and support renewals from our legacy perpetual software licenses.

4. Consulting services and training services - SSP of consulting services and training services is established based on the observable pricing of standalone sales within each geographic region where the services are sold.

Contract Balances

Timing may differ between the satisfaction of performance obligations and the invoicing and collection of amounts related to our contracts with customers. Contract assets primarily relate to unbilled amounts for contracts with customers for which the amount of revenue recognized exceeds the amount billed to the customer. Contract assets are transferred to accounts receivable when the right to invoice becomes unconditional. As of March 31, 2020 and December 31, 2019, contract assets of $23.4 million and $22.8 million, respectively, are included in the prepaid expenses and other current assets and other assets line items in our condensed consolidated balance sheets.

Contract liabilities consists of deferred revenue and include payments received in advance of the satisfaction of performance obligations. Deferred revenue is then recognized as the revenue recognition criteria are met. Deferred revenue that will be recognized during the succeeding 12-month period is recorded as current, and the remaining deferred revenue is recorded as non-current. For the three months ended March 31, 2020, we recognized $35.6 million of revenue that was included in the deferred revenue balance as of January 1, 2020.

Transaction Price Allocated to the Remaining Performance Obligations

As of March 31, 2020, we had an aggregate transaction price of $172.5 million allocated to unsatisfied performance obligations. We expect to recognize $155.6 million of this balance as revenue over the next 24 months with the remaining amount recognized thereafter.

4. Leases

At the inception of an arrangement, we determine whether the arrangement is or contains a lease based on the unique facts and circumstances present and the classification of the lease. Operating leases with a term greater than one year are recognized on the balance sheet as right-of-use ("ROU") assets, lease liabilities, and, if applicable, long-term lease liabilities. ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments arising from the lease. We have elected not to recognize on the balance sheet leases with a term of one year or less. For contracts with lease and non-lease components, we have elected not to allocate the contract consideration and to account for the lease and non-lease components as a single lease component. Finance leases are included in property and equipment, net, finance lease liability, current, and finance lease liability, net of current portion line items in our condensed consolidated balance sheets.

Lease liabilities and their corresponding ROU assets are recorded based on the present value of lease payments over the expected lease term. The implicit rate within most of our leases are generally not determinable; therefore, we use the incremental borrowing rate at the lease commencement date to determine the present value of lease payments. The determination of our incremental borrowing rate requires judgment and is estimated for each lease based on the rate we would have to pay for a collateralized loan with the same term and payments as the lease. We consider various factors, including our level of collateralization, estimated credit rating, and the currency in which the lease is denominated. The operating lease ROU also includes any lease prepayments, offset by lease incentives. Certain of our leases include options to extend or terminate the lease. An option to extend the lease is considered in connection with determining the ROU asset and lease liability when it is reasonably certain we will exercise that option while an option to terminate is considered as well unless it is reasonably certain we will not exercise the option. For certain equipment leases, we apply a portfolio approach to effectively account for the operating lease ROU assets and liabilities.

Expense for operating leases is recognized on a straight-line basis over the lease term as an operating expense while the expense for finance leases is recognized as depreciation expense and interest expense. We have lease agreements which require payments for lease and non-lease components (i.e., common area maintenance) that are accounted for as a single lease component. Variable lease payment amounts that cannot be determined at the commencement of the lease, such as maintenance costs based on future obligations. Variable lease payments are not included in the ROU assets or lease liabilities but rather are expensed as incurred and recorded as variable lease expense.

We have operating and finance leases for corporate offices, office furniture and fixtures, and computer hardware. Our leases have remaining lease terms of 1 year to 12 years, some of which include options to extend the leases for up to 5 years.

In April 2018, we entered into a lease agreement with respect to 176,222 square feet of office space in McLean, Virginia for a new corporate headquarters. The initial term of the lease was 150 months. We took initial possession of the first phase of the new headquarters in October 2018 and began to recognize rent expense as of that date. In February 2019, we took possession of a further 28,805 square feet of adjacent office space.

In January 2020, we entered into an amendment which adjusts the original terms of the headquarters lease. Under this amendment, we exercised an option to expand occupancy, adding 34,158 square feet of space. Occupancy of the added space is to commence upon the earlier of the completion of certain improvements or October 14, 2020. Pursuant to the guidance of ASC 842, the amendment is considered a modification to the original lease and is accounted for as a separate contract because it represents a new right-of-use asset and the lease costs charged on the new space are at prevailing market rates. As of March 31, 2020, we have not taken possession of the space nor met the criteria for the lease to be considered commenced. Accordingly, we have not reported a right-of-use asset or liability on our condensed consolidated balance sheets nor have recorded expense on our condensed consolidated statements of operations in relation to the additional space.

The following table sets forth the components of lease expense for the three months ended March 31, 2020 (in thousands):

	Three Months Ended March 31, 2020
Operating lease cost	$ 1,868
Finance lease costs:	
Amortization of right-of-use assets	373
Interest on lease liabilities	51
Short-term lease cost	185
Variable lease cost	183
Total	$ 2,660

Supplemental balance sheet information related to leases as of March 31, 2020 was as follows (in thousands, except for lease term and discount rate):

	As of March 31, 2020
Operating Leases	
Operating right-of-use assets	$ 23,340
Operating lease liabilities, current	$ 3,755
Operating lease liabilities, net of current portion	44,778
Total operating lease liabilities	$ 48,533
Finance Leases	
Property and equipment, at cost	$ 4,471
Accumulated depreciation	(1,073)
Property and equipment, net	$ 3,398
Finance lease liabilities, current	$ 1,466
Finance lease liabilities, net of current portion	1,998
Total finance lease liabilities	$ 3,464
Weighted Average Remaining Lease Term (in years)	
Operating leases	11.2
Finance leases	2.3
Weighted Average Discount Rate	
Operating leases	9.9 %
Finance leases	5.5 %

For the three months ended March 31, 2020, amortization of operating right-of-use assets totaled $0.7 million and interest expense on operating right-of-use liabilities totaled $0.4 million.

Supplemental cash flow information related to leases for the three months ended March 31, 2020 was as follows (in thousands):

	Three Months Ended March 31, 2020
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash outflows for operating leases	$ 772
Operating cash outflows for finance leases	51
Financing cash outflows for finance leases	357

A summary of our future minimum lease commitments under non-cancellable leases as of March 31, 2020 is as follows (in thousands):

	Operating Leases	Finance Leases
2020 (excluding the three months ended March 31, 2020)	$ 2,491	$ 1,215
2021	7,427	1,620
2022	8,059	859
2023	8,144	—
2024	8,526	—
2025	9,224	—
Thereafter	57,380	—
Total lease payments	101,251	3,694
Less: imputed interest	(52,718)	(230)
Total	$ 48,533	$ 3,464

5. Acquisitions

Novayre Solutions SL

In January 2020, we acquired 100% of the outstanding common stock of Novayre Solutions SL, a developer of a robotic process automation platform, for approximately $6.9 million. The acquisition was made due to the attractive nature of the product offerings of Novayre and in furtherance of our objective to enhance our automation platform. The transaction was financed through available cash on hand.

The allocation of the purchase price is preliminary pending the finalization of the fair value of the acquired net assets, liabilities assumed, deferred income taxes, and assumed income and non-income based tax liabilities. As of the acquisition date, the purchase price was assigned to the acquired assets and assumed liabilities as follows (in thousands):

Cash acquired	$ 731
Other current assets	213
Property and equipment	22
Developed technology	1,537
Customer relationships	406
Goodwill	4,308
Other noncurrent assets	10
Total assets acquired	7,227
Current liabilities	14
Noncurrent liabilities	344
Total liabilities assumed	358
Net assets acquired	$ 6,869

There were no changes to our reportable segments as a result of the acquisition, and revenue and expenses from the date of the acquisition through March 31, 2020 were immaterial. Additionally, acquisition costs incurred in relation to the transaction were immaterial.

Acquired property and equipment is depreciated on a straight-line basis over the assets' respective estimated remaining useful lives. Goodwill is calculated as the excess of the consideration transferred over the fair value of the identifiable net assets acquired and represents the future economic benefits expected to arise from other intangible assets acquired that do not qualify for separate recognition, including assembled workforce, non-contractual relationships, and expected future synergies. We do not expect the purchase price allocated to goodwill and intangible assets to be deductible for tax purposes.

6. Property and Equipment, net

Property and equipment, net consisted of the following as of March 31, 2020 and December 31, 2019 (in thousands):

	March 31, 2020	December 31, 2019
Leasehold improvements	$ 35,951	$ 37,130
Office furniture and fixtures	4,860	4,963
Computer hardware	3,362	3,365
Computer software	1,352	1,350
Equipment	47	72
	45,572	46,880
Less: accumulated depreciation	(7,247)	(7,326)
Property and equipment, net	$ 38,325	$ 39,554

Depreciation expense totaled $1.4 million and $0.8 million for the three months ended March 31, 2020 and March 31, 2019, respectively. During the three months ended March 31, 2020, we retired $1.3 million of leasehold improvements, $0.1 million of computer hardware, $0.1 million of office furniture and fixtures and equipment. Nominal losses on disposal were recorded for the three months ended March 31, 2020. There were no retirements of property or equipment and no gains or losses recorded on disposal during the three months ended March 31, 2019.

At March 31, 2020, property and equipment included $4.5 million of assets acquired under finance lease arrangements. Accumulated depreciation related to these finance lease arrangements totaled $1.1 million at March 31, 2020. Amortization of assets acquired under finance leases is included in depreciation and amortization expense.

7. Accrued Expenses

Accrued expenses consisted of the following as of March 31, 2020 and December 31, 2019 (in thousands):

	March 31, 2020	December 31, 2019
Accrued contract labor costs	$ 1,984	$ 1,921
Accrued hosting costs	1,177	1,865
Accrued reimbursable employee expenses	969	1,353
Accrued legal costs	288	422
Accrued marketing and tradeshow expenses	730	365
Accrued audit and tax expenses	754	315
Accrued third party license fees	244	288
Other accrued expenses	1,390	959
Total	$ 7,536	$ 7,488

8. Debt

Line of Credit

In November 2017, we entered into a $20.0 million revolving line of credit with a lender. The facility matures in November 2022. We may elect whether amounts drawn on the revolving line of credit bear interest at a floating rate per annum equal to either LIBOR or the prime rate plus an additional interest rate margin that is determined by the availability of the borrowings under the revolving line of credit. The additional interest rate margin will range from 2.00% to 2.50% in the case of LIBOR advances and from 1.00% to 1.50% in the case of prime rate advances. The revolving line of credit contains an unused facility fee in an amount between 0.15% and 0.25% of the average unused portion of the revolving line of credit, which is payable quarterly. The agreement contains certain customary affirmative and negative covenants and requires us to maintain (i) an adjusted quick ratio of at least 1.35 to 1.00 and (ii) minimum adjusted EBITDA, in the amounts and for the periods set forth in the agreement. Any amounts borrowed under the credit facility are collateralized by substantially all of our assets. We were in compliance with all covenants as of March 31, 2020. As of March 31, 2020, we had no outstanding borrowings under this new revolving line of credit, and we had outstanding letters of credit totaling $11.1 million under the 2017 line of credit in connection with securing our leased office space.

9. Income Taxes

The provision for income taxes is based upon the estimated annual effective tax rates for the year applied to the current period income before tax plus the tax effect of any significant or unusual items, discrete events, or changes in tax law. Our operating subsidiaries are exposed to statutory effective tax rates ranging from zero to approximately 32%. Fluctuations in the distribution of pre-tax income among our operating subsidiaries can lead to fluctuations of the effective tax rate in the condensed consolidated financial statements. For the three months ended March 31, 2020 and March 31, 2019, the actual effective tax rates were 1.6% and (0.8)%, respectively.

We assess uncertain tax positions in accordance with ASC 740-10, *Accounting for Uncertainties in Income Taxes*. As of March 31, 2020, our net unrecognized tax benefits totaled $1.6 million, which if recognized would result in no net effect on the effective tax rate due to a valuation allowance. The amount of reasonably possible unrecognized tax benefits that could decrease over the next 12 months due to the expiration of certain statutes of limitations or settlements of tax audit is not material to our condensed consolidated financial statements.

We file income tax returns in the United States federal jurisdiction and in many states and foreign jurisdictions. The tax years 2016 through 2019 remain open to examination by the major taxing jurisdictions to which we are subject. We are not currently under examination by the Internal Revenue Service for any open tax years.

In response to the COVID-19 pandemic, the United States passed the Coronavirus Aid, Relief, and Economic Security ("CARES") Act in March 2020. The CARES Act includes various income and payroll tax measures. At this time, the CARES Act is not expected to materially impact our financial statements, but we continue to evaluate potential impacts.

10. Stock-Based Compensation

Equity Incentive Plans

In May 2017, our Board of Directors adopted, and our stockholders approved, the 2017 Equity Incentive Plan (the “2017 Plan”), which became effective as of the date of the final prospectus for our initial public offering. The 2017 Plan provides for the grant of incentive stock options to employees, and for the grant of nonstatutory stock options, restricted stock awards, restricted stock unit awards ("RSUs"), stock appreciation rights, performance-based stock awards, and other forms of equity compensation to employees, including officers, non-employee directors, and consultants. We initially reserved 6,421,442 shares of Class A common stock for issuance under the 2017 Plan, which included 421,442 shares that remained available for issuance under our 2007 Stock Option Plan (the “2007 Plan”) at the time the 2017 Plan became effective. The number of shares reserved under the 2017 Plan increases for any shares subject to outstanding awards originally granted under the 2007 Plan that expire or are forfeited prior to exercise. As a result of the adoption of the 2017 Plan, no further grants may be made under the 2007 Plan. As of March 31, 2020, there were 7,129,569 shares of Class A common stock reserved for issuance under the 2017 Plan, of which 4,595,825 were available to be issued.

Stock Options

We estimate the fair value of stock options containing only a service condition using the Black-Scholes option pricing model, which requires the use of subjective assumptions, including the expected term of the option, the current price of the underlying stock, the expected stock price volatility, expected dividend yield, and the risk-free interest rate for the expected term of the option. The expected term represents the period of time the stock options are expected to be outstanding. Due to the lack of sufficient historical exercise data to provide a reasonable basis upon which to otherwise estimate the expected term of the stock options, we use the simplified method to estimate the expected term for our stock options. Under the simplified method, the expected term of an option is presumed to be the mid-point between the vesting date and the end of the contractual term. Expected volatility is based on historical volatilities for publicly traded stock of comparable companies over the estimated expected term of the stock options. We assume no dividend yield because dividends are not expected to be paid in the near future, which is consistent with our history of not paying dividends.

In May 2019, our Board of Directors granted a stock option to purchase 700,000 shares of our Class A common stock to our Chief Executive Officer (the "2019 CEO Grant") under the 2017 Plan with an exercise price of $33.98 per share. The 2019 CEO Grant is eligible to vest based on the achievement of a stock price appreciation target of our Class A common stock. Specifically, the 2019 CEO Grant will vest when shares of our Class A common stock closes at or above $84.63 per share for a period equal to or greater than 90 calendar days or upon the occurrence of a change in control in which the value of our Class A common stock is equal to or greater than $84.63 per share within five years of the grant date. The fair value of the 2019 CEO Grant was determined using a Monte Carlo simulation. The fair value of the award at the grant date was $9.5 million and will be amortized over the derived service period of 2.6 years.

The following table summarizes the stock option activity for the three months ended March 31, 2020:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2020	4,458,611	$ 12.30	5.8	$ 115,501
Granted	—	—		
Exercised	(129,082)	5.16		$ 4,900
Canceled	(21,520)	10.99		
Outstanding at March 31, 2020	4,308,009	$ 12.53	5.55	$ 119,352
Exercisable at March 31, 2020	2,776,009	$ 7.64	5.55	$ 90,481

There were no stock options granted during the three months ended March 31, 2020 and March 31, 2019. The total fair value of stock options that vested during each of the three months ended March 31, 2020 and March 31, 2019 was $0.3 million. As of March 31, 2020, the total compensation cost related to unvested stock options not yet recognized was $7.2 million, which will be recognized over a weighted average period of 1.7 years.

Restricted Stock Units

The following table summarizes RSU activity for the three months ended March 31, 2020:

	Number of Shares	Weighted Average Grant Date Fair Value
Non-vested and outstanding at January 1, 2020	1,022,835	$ 31.39
Granted	135,280	53.92
Vested	(46,031)	33.34
Canceled	(42,916)	32.38
Non-vested and outstanding at March 31, 2020	1,069,168	34.11

As of March 31, 2020, total unrecognized compensation cost related to unvested RSUs was approximately $31.0 million, which will be recognized over a weighted average period of 2.4 years.

In November 2018, our co-founders were granted 255,930 RSUs under the 2017 Plan at a fair value of $30.06 per share. The awards were approved by the Board of Directors. The value of these awards at the grant date was $7.7 million and was amortized over the vesting periods. The RSUs vested during the three months ended March 31, 2019.

The following table summarizes the components of our stock-based compensation expense by instrument type for the three months ended March 31, 2020 and March 31, 2019 (in thousands):

	Three Months Ended March 31,	
	2020	2019
RSUs	$ 2,299	$ 6,769
Stock options	1,084	364
Common stock awards to Board of Directors	93	92
Total stock-based compensation expense	$ 3,476	$ 7,225

Stock-based compensation expense for RSUs, stock options, and issuances of common stock is included in the following line items in the accompanying condensed consolidated statements of operations for the three months ended March 31, 2020 and March 31, 2019 (in thousands):

	Three Months Ended March 31,	
	2020	2019
Cost of revenue		
Subscriptions	$ 213	$ 154
Professional services	212	1,974
Operating expenses		
Sales and marketing	753	2,381
Research and development	553	2,115
General and administrative	1,745	601
Total stock-based compensation expense	$ 3,476	$ 7,225

11. Stockholders' Equity

As of March 31, 2020, we had authorized 500,000,000 shares of Class A common stock and 100,000,000 shares of Class B common stock, each with a par value of $0.0001 per share, of which 34,731,245 shares of Class A common stock and 32,913,836 shares of Class B common stock were issued and outstanding. The rights of the holders of Class A common stock and Class B common stock are identical, except with respect to voting and conversion rights. The holders of Class A common stock are entitled to one vote per share, and the holders of Class B common stock are entitled to ten votes per share on all matters subject to stockholder vote. The holders of Class B common stock also have approval rights for certain corporate actions. Each share of Class B common stock may be converted into one share of Class A common stock at the option of its holder and will be automatically converted upon transfer thereof, subject to certain exceptions. In addition, upon the date on which the outstanding shares of Class B common stock represent less than 10% of the aggregate voting power of our capital stock, all outstanding shares of Class B common stock shall convert automatically into Class A common stock.

12. Basic and Diluted Loss per Common Share

The following potentially dilutive securities outstanding, prior to the use of the treasury stock method or the if-converted method, have been excluded from the computation of diluted weighted-average shares outstanding for the respective periods below because they would have been anti-dilutive:

	Three Months Ended March 31,	
	2020	2019
Stock options	4,308,009	4,506,244
Non-vested restricted stock units	1,069,168	963,055

13. Commitments and Contingencies

Contractual Warranty and Indemnification Obligations

We provide limited product warranties. Historically, any payments made under these provisions have been immaterial. We also agree to standard indemnification provisions in the ordinary course of business. Pursuant to these provisions, we agree to indemnify, hold harmless and reimburse the indemnified party for losses suffered or incurred by the indemnified party, generally our customers, in connection with certain intellectual property infringement claims by any third party arising from the use of our products or services in accordance with the agreement. The term of our contractual indemnity provisions often survives termination or expiration of the applicable agreement. We carry insurance that covers certain third-party claims relating to our services and limits our exposure. We have never incurred costs to defend lawsuits or settle claims related to these indemnification provisions.

Letters of Credit

At March 31, 2020 and December 31, 2019, we had outstanding letters of credit totaling $11.1 million and $10.5 million, respectively, in connection with securing our leased office space. All letters of credit are secured by our borrowing arrangement as described in Note 8.

Legal

From time to time, we are subject to legal, regulatory, and other proceedings and claims that arise in the ordinary course of business. There are no issues or resolution of any matters expected to have a material adverse impact on our condensed consolidated financial statements.

14. Segment and Geographic Information

The following table summarizes revenue by geography for the three months ended March 31, 2020 and March 31, 2019 (in thousands):

	Three Months Ended March 31,	
	2020	**2019**
Domestic	$ 52,455	$ 41,069
International	26,409	19,235
Total	$ 78,864	$ 60,304

With respect to geographic information, revenue is attributed to respective geographies based on the contracting address of the customer. Revenues from external customers attributed to the United Kingdom were 12.5% and 10.9% of our total revenue for the three months ended March 31, 2020 and March 31, 2019, respectively. There were no other individual foreign countries from which more than 10% of our total revenue was attributable for each the three months ended March 31, 2020 and March 31, 2019. Substantially all of our long-lived assets were held in the United States as of March 31, 2020 and December 31, 2019.

15. Subsequent Events

In preparing our condensed consolidated financial statements, we evaluated subsequent events through May 7, 2020, which is the date the condensed consolidated financial statements were available to be issued. No subsequent events requiring disclosure were noted.

Item 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with (1) our condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on

Form 10-Q and (2) the audited consolidated financial statements and the related notes and management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2019 included in our Annual Report on Form 10-K, filed with the Securities and Exchange Commission, or SEC, on February 20, 2020.

This Quarterly Report on Form 10-Q contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements are often identified by the use of words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "project," "will," "would" or the negative or plural of these words or similar expressions or variations, including statements regarding our future financial and operating performance, anticipated expansion of the usage of partners to perform professional services, the increase of our subscriptions revenue as a percentage of total revenue, the fluctuation of gross margin in the short term and improvement of gross margin over time, our future capital requirements, and uncertain negative impacts that COVID-19 may have on our business, financial condition, results of operations, and changes in overall level of spending and volatility in the global economy. Such forward-looking statements are subject to a number of risks, uncertainties, assumptions, and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified herein, and those discussed in the section titled "Risk Factors," set forth in Part I, Item 1A of our Annual Report on Form 10-K filed with the SEC on February 20, 2020 and in our other filings with the SEC. You should not rely upon forward-looking statements as predictions of future events. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

Overview

We provide a low-code automation platform that accelerates the creation of high-impact business applications, enabling our customers to automate the most important aspects of their business. Global organizations use our applications to improve customer experience, achieve operational excellence, and simplify global risk management and compliance.

With our platform, organizations can rapidly and easily design, build, and implement powerful, enterprise-grade custom applications through our intuitive, visual interface with little or no coding required. Our customers have used applications built on our platform to launch new business lines, automate vital employee workflows, manage complex trading platforms, accelerate drug development, and build global procurement systems. With our platform, decision makers can reimagine their products, services, processes, and customer interactions by removing much of the complexity and many of the challenges associated with traditional approaches to software development.

We have generated the majority of our revenue from sales of subscriptions, which include (1) software as a service subscriptions bundled with maintenance and support and hosting services, and (2) term license subscriptions bundled with maintenance and support. Our subscription fees are based primarily on the number of users who access and utilize the applications built on our platform or, alternatively, non-user based single application licenses. Our customer contract terms generally vary from one to three years with most providing for payment in advance on an annual, quarterly, or monthly basis. Due to the variability of our billing terms and the episodic nature of our customers purchasing additional subscriptions, we do not believe changes in our deferred revenue in a given period are directly correlated with our revenue growth.

Since inception, we have invested in our professional services organization to help ensure customers are able to build and deploy applications on our platform. We have several strategic partnerships, including with KPMG, PwC, Accenture, and Deloitte, for them to refer customers to us in order to purchase subscriptions and then to provide professional services directly to the customers using our platform. We intend to further grow our base of strategic partners to provide broader customer coverage and solution delivery capabilities. In addition, over time we expect professional services revenue as a percentage of total revenue to decline as we increasingly rely on strategic partners to help our customers deploy our software. We believe our investment in professional services, including strategic partners building their practices around Appian, will drive increased adoption of our platform.

Our customers include financial services, life sciences, government, telecommunications, media, energy, manufacturing, and transportation organizations. Generally, our sales force targets its efforts on organizations with over 2,000 employees and $2 billion in annual revenue. Revenue from government agencies represented 14.9% and 17.8% of our total revenue in the three months ended March 31, 2020 and March 31, 2019, respectively. No single end-customer accounted for more than 10% of our total revenue in the three months ended March 31, 2020 or March 31, 2019.

Our platform supports multiple languages to facilitate collaboration and address challenges in multi-national organizations. We offer our platform globally. In the three months ended March 31, 2020 and March 31, 2019, 33.5% and 31.9%, respectively, of our total revenue was generated from customers outside of the United States. As of March 31, 2020, we operated in 12 countries. We believe we have a significant opportunity to grow our international footprint. We are investing in new geographies, including through investment in direct and indirect sales channels, professional services, and customer support and implementation partners.

Basis of Reporting - ASC 606

We adopted ASC 606, the new revenue recognition guidance, on January 1, 2019 using the modified retrospective method. Under this method of adoption, we recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of accumulated deficit and applied the new standard only to contracts that were not completed prior January 1, 2019.

Because we were an emerging growth company until December 31, 2019, the Jumpstart Our Business Startups Act allowed us to delay adoption of ASC 606 until such time it was made applicable to private companies. We elected to use this extended transition period, and accordingly, did not report revenues under ASC 606 in our Quarterly Reports on Form 10-Q during 2019. Refer to our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020, for a complete reconciliation of our revenues under the old and new guidance. Prior period revenue amounts in this Form 10-Q have been recast as if we had reported under ASC 606 for the applicable periods.

Recent Developments

Acquisition of Novayre Solutions SL

In January 2020, we acquired Novayre Solutions SL, or Novayre, a developer of a robotic process automation platform, for approximately $6.9 million. The transaction was financed through available cash on hand. Novayre's results of operations are included in our condensed consolidated statements of operations from the acquisition date onwards.

COVID-19

Beginning in late 2019 and continuing into the first quarter of 2020, the outbreak of the novel coronavirus disease, or COVID-19, has resulted in the declaration of a global pandemic and adversely affected economic activity across virtually all sectors and industries on a local, national, and global scale. The impact of COVID-19 on the economy and our business continues to be a fluid situation.

Operationally, we remain focused on supporting our customers, employees, and communities during this time. We have responded quickly to adopt a virtual corporate strategy consisting of enabling most of our employees to work productively from home while continuing to guard the health and safety of our teams, support our customers, and mitigate risk. We are focused on ensuring continuity for our customers. To the extent possible, we are conducting business as usual, with necessary or advisable modifications to employee travel, employee work locations, and marketing events. For instance, we have decided to move our annual user conference Appian World to a virtual-only format this year.

Through March 31, 2020, we have not seen a meaningful adverse impact to our financial position, results of operations, and cash flows and liquidity as a result of COVID-19. While the verticals from which we have historically generated the majority of our revenue have been less impacted by COVID-19 to date, there may be impacts to our financial condition and results of operations in the second quarter of 2020 and beyond as a result of reduced demand for our products and services and longer sales cycles. The ultimate impact of COVID-19 on our business is not estimable at this time and will be largely dependent upon a number of factors outside of our control including the extent and duration of the outbreak as well as any mitigating actions which may be undertaken by global governments and the general public. Refer to Item 1A. Risk Factors for further discussion on certain risks and uncertainties stemming from COVID-19.

Our Business Model

Our business model focuses on maximizing the lifetime value of customer relationships, which is a function of the duration of a customer's deployment of Appian as well as the price and number of subscriptions of Appian that a customer purchases. We incur significant customer acquisition costs, including expenses associated with hiring new sales representatives, who generally take more than one year to become productive given the length of our sales cycle, and marketing costs, all of which, with the exception of sales commissions, are expensed as incurred.

Key Factors Affecting Our Performance

The following are several key factors that affect our performance:

- **Market Adoption of Our Platform.** Our ability to grow our customer base and drive market adoption of our platform is affected by the pace at which organizations digitally transform. We expect our revenue growth will be primarily driven by the pace of adoption and penetration of our platform. We offer a leading custom software automation platform and intend to continue to invest to expand our customer base. The degree to which prospective customers recognize the need for low-code software that enables organizations to digitally transform, and subsequently allocate budget dollars to purchase our software, will drive our ability to acquire new customers and increase sales to existing customers, which, in turn, will affect our future financial performance.

- **Growth of Our Customer Base.** We believe we have a substantial opportunity to grow our customer base. We define a customer as an entity with an active subscription or maintenance and support contract related to a perpetual software license as of the specified measurement date. To the extent we contract with one or more entities under common control, we count those entities as separate customers. We have aggressively invested, and intend to continue to invest, in our sales force in order to drive sales to new customers. In particular, we have recently made, and plan to continue to make, investments to enhance the expertise of our sales and marketing organization within our key industry verticals of financial services, life sciences, and government. In addition, we have established relationships with strategic partners who work with organizations undergoing digital transformations. Our ability to continue to grow our customer base is dependent, in part, upon our ability to compete within the increasingly competitive markets in which we participate.

- **Further Penetration of Existing Customers.** Our sales force seeks to generate additional revenue from existing customers by adding new users to our platform. Many of our customers begin by building a single application and then grow to build dozens of applications on our platform. Generally, the development of new applications on our platform results in the expansion of our user base within an organization and a corresponding increase in revenue to us because we charge subscription fees on a per-user basis for the significant majority of our customer contracts. As a result of this "land and expand" strategy, we have generated significant additional revenue from our customer base. Our ability to increase sales to existing customers will depend on a number of factors, including the size of our sales force and professional services teams, customers' level of satisfaction with our platform and professional services, pricing, economic conditions, and our customers' overall spending levels. We have also refocused some of our professional services personnel to become customer success managers. Their role is to ensure the customer realizes value from our platform and support the "land and expand" strategy versus delivering billable hours.

- **Mix of Subscription and Professional Services Revenue.** We believe our professional services have driven customer success and facilitated the adoption of our platform by customers. During the initial period of deployment by a customer, we generally provide a greater amount of support in building applications and training than later in the deployment, with a typical engagement extending from two to six months. At the same time, many of our customers have historically purchased subscriptions only for a limited set of their total potential end users. As a result of these factors, the proportion of total revenue for a customer associated with professional services is relatively high during the initial deployment period. Over time, as the need for professional services associated with user deployments decreases and the number of end users increases, we expect subscriptions revenue as a percentage of total revenue to increase. In addition, we intend to further grow our base of strategic partners to provide broader customer coverage and solution delivery capabilities. These partners perform professional services with respect to any new service contracts they sign. As the usage of partners expands, we expect the proportion of our total revenue from subscriptions to increase over time relative to professional services. As of March 31, 2020 and March 31, 2019, 64.0% and 57.3% of our revenue, respectively, was derived from sales of subscriptions while the remaining 36.0% and 42.7%, respectively, was derived from the sale of professional services.

- **Investments in Growth.** We have made and plan to continue to make investments for long-term growth, including investment in our platform and infrastructure to continuously maximize the power and simplicity of the platform to meet the evolving needs of our customers and to take advantage of our market opportunity. In addition, we continue to pursue strategic acquisitions that enhance our product offerings as evidenced by our recent acquisition of Novayre. We also intend to continue to invest in sales and marketing as we further expand our sales teams, increase our marketing activities, and grow our international operations.

Key Metrics

We monitor the following metrics to help us measure and evaluate the effectiveness of our operations. All dollar amounts are presented in thousands.

Cloud Subscription Revenue

	Three Months Ended March 31,	
	2020	2019
Cloud subscription revenue	$ 28,390	$ 21,278

Cloud subscription revenue is a portion of our revenue and includes SaaS subscriptions bundled with maintenance and support and hosting services. As we generally sell our SaaS subscriptions on a per-user basis, our cloud subscription revenue for any customer is primarily determined by the number of users who access and utilize the applications built on our platform as well as the price paid. We believe increasing cloud subscription revenue is an indicator of the demand for our platform, the pace at which the market for our solutions is growing, the productivity of our sales force and strategic relationships in growing our customer base, and our ability to further penetrate our existing customer base.

Cloud Subscription Revenue Retention Rate

	As of March 31,	
	2020	2019
Cloud subscription revenue retention rate	115 %	126 %

A key factor to our success is the renewal and expansion of subscription agreements with our existing customers. We calculate this metric over a set of customers who have been with us for at least one full year. To calculate our cloud subscription revenue retention rate for a particular trailing 12-month period, we first establish the recurring cloud subscription revenue for the previous trailing 12-month period. This effectively represents recurring dollars we should expect in the current trailing 12-month period from the cohort of customers from the previous trailing 12-month period without any expansion or contraction. We subsequently measure the recurring cloud subscription revenue in the current trailing 12-month period from the cohort of customers from the previous trailing 12-month period. Cloud subscription revenue retention rate is then calculated by dividing the aggregate recurring cloud subscription revenue in the current trailing 12-month period by the previous trailing 12-month period. This calculation includes the impact on our revenue from customer non-renewals, pricing changes, and growth in the number of users on our platform. Our cloud subscription revenue retention rate can fluctuate from period to period due to large customer contracts in any given period. The cloud subscription revenue retention rate as of March 31, 2019 was elevated as we focused on converting customers with on-premises term license subscriptions to cloud subscriptions.

Key Components of Results of Operations

Revenue

We generate revenue primarily through sales of subscriptions to our platform as well as professional services. We generally sell our software on a per-user basis and, to a lesser degree, non-user based single application licenses. We generally bill customers and collect payment for subscriptions to our platform in advance on an annual, quarterly, or monthly basis. In certain instances, we have had customers pay their entire contract value up front.

Our revenue is comprised of the following:

Subscriptions

Subscriptions revenue is primarily derived from:

- SaaS subscriptions bundled with maintenance and support and hosting services; and

- On-premises term license subscriptions bundled with maintenance and support.

Our maintenance and support agreements provide customers with the right to unspecified software upgrades, maintenance releases and patches released during the term of the maintenance and support agreement on a when-and-if-available basis, and rights to technical support. When our platform is deployed within a customer's own data center or private cloud, it is installed on the customer's infrastructure and generally offered as a term license. When our platform is delivered as a SaaS subscription, we handle its operational needs in third-party hosted data centers.

Professional Services

Our professional services revenue is comprised of fees for consulting services, including application development and deployment assistance and training related to our platform. Over time, as the need for professional services associated with user deployments decreases and the number of end users increases, we expect professional services revenue as percentage of total revenue to decrease. Additionally, if there is a decline in our procurement of new customers as a result of the COVID-19 pandemic, we may also see a similar decline in professional services revenue.

We have several strategic partnerships, including with KPMG, PwC, Accenture, and Deloitte. Our agreements with our strategic partners have indefinite terms and may be terminated for convenience by either party. We intend to further grow our base of strategic partners to provide broader customer coverage and solution delivery capabilities. These partners refer software subscription customers to us and generally perform professional services with respect to any new service contracts they originate, increasing our subscriptions revenue without any change to our professional services revenue. As we expand the network of strategic partners, we expect professional services revenue to decline as a percentage of total revenue over time since our strategic partners may perform professional services associated with software subscriptions that we sell.

Cost of Revenue

Subscriptions

Cost of subscriptions revenue consists primarily of fees paid to our third-party managed hosting providers and other third-party service providers, personnel costs, including payroll and benefits for our technology operations and customer support teams, and allocated facility costs and overhead. We expect cost of revenue to continue to increase in absolute dollars for the foreseeable future as our customer base grows.

Professional Services

Cost of professional services revenue includes all direct and indirect costs to deliver our professional services and training, including employee compensation for our global professional services and training personnel, travel costs, third-party contractor costs, and allocated facility costs and overhead as well as the costs of billable expenses such as travel and lodging. The unpredictability of the timing of entering into significant professional services agreements sold on a standalone basis may cause significant fluctuations in our quarterly financial results.

Gross Margin

Gross profit and gross margin, or gross profit as a percentage of total revenue, has been, and will continue to be, affected by various factors, including the mix of subscriptions revenue and professional services revenue. Subscription pricing, the costs associated with third-party hosting facilities, and the extent to which we expand our professional services to support future growth will impact our gross margins. Our gross margin may fluctuate from period to period based on the above factors.

Subscriptions Gross Margin. Subscriptions gross margin is primarily affected by the growth in our subscriptions revenue as compared to the growth in, and timing of, costs to support such revenue. We expect to continue to invest in customer support and SaaS operations to support the growth in the business, and the timing of those investments is expected to cause gross margins to fluctuate in the short term but improve over time.

Professional Services Gross Margin. Professional services gross margin is affected by the growth in our professional services revenue as compared to the growth in, and timing of, the cost of our professional services organization as we continue to invest in the growth of our business. Professional services gross margin is impacted by the amount of services performed by subcontractors as opposed to internal resources. Our professional services gross margin is also impacted by the amount of services performed by partners as opposed to internal resources.

Operating Expenses

Operating expenses consist of sales and marketing, research and development, and general and administrative expenses. Salaries, bonuses, and other personnel-related costs are the most significant components of each of these expense categories. In general, our operating expenses are expected to continue to increase as we invest resources in growing our various teams. However, our hiring activity in the near term will likely be lower in comparison to prior periods as a result of cost controlling measures we are implementing in response to the ongoing COVID-19 pandemic.

Sales and Marketing Expense

Sales and marketing expense primarily includes personnel costs, including salaries, bonuses, commissions, stock-based compensation, and other personnel costs related to sales teams. Additional expenses in this category include travel and entertainment, marketing and promotional events, marketing activities, subcontracting fees, and allocated facility costs and overhead.

In order to continue to grow our business, geographical footprint, and brand awareness, we expect sales and marketing expense to increase in absolute dollars as we continue to invest to acquire new customers and further expand usage of our platform within our existing customer base.

Research and Development Expense

Research and development expense consists primarily of personnel costs for our employees who develop and enhance our platform, including salaries, bonuses, stock-based compensation, and other personnel costs. Also included are non-personnel costs such as subcontracting, consulting and professional fees to third party development resources, allocated facility costs, overhead, and depreciation and amortization costs.

Our research and development efforts are focused on enhancing the speed and power of our software platform. We expect research and development expenses to continue to increase as they are critical to maintain and improve our quality of applications and our competitive position.

General and Administrative Expense

General and administrative expense consists primarily of personnel costs, including salaries, bonuses, stock-based compensation, and other personnel costs for our administrative, legal, information technology, human resources, finance and accounting employees, and executives. Additional expenses included in this category are non-personnel costs such as travel-related expenses, contracting and professional fees, audit fees, tax services and legal fees, as well as insurance and other corporate expenses, along with allocated facility costs and overhead.

We expect our general and administrative expense to increase in absolute dollars as we continue to support our growth.

Other Expense

Other Expense (Income), Net

Other expense (income), net consists primarily of unrealized and realized gains and losses related to changes in foreign currency exchange rates, interest income on our cash and cash equivalents, and gains or losses on the disposal of property and equipment.

Interest Expense

Interest expense consists primarily of interest on our finance leases and debt, unused credit facility fees, and commitment fees on our letters of credit.

Results of Operations

The following table sets forth our consolidated statement of operations data (in thousands):

	Three Months Ended March 31,	
	2020	**2019**
Revenue		
Subscriptions	$ 50,436	$ 34,557
Professional services	28,428	25,747
Total revenue	78,864	60,304
Cost of revenue		
Subscriptions[1]	5,383	3,585
Professional services[1]	18,736	20,481
Total cost of revenue	24,119	24,066
Gross profit	54,745	36,238
Operating expenses		
Sales and marketing[1]	34,172	28,591
Research and development[1]	16,038	13,956
General and administrative[1]	13,141	9,016
Total operating expenses	63,351	51,563
Operating loss	(8,606)	(15,325)
Other expense (income)		
Other expense (income), net	3,114	(302)
Interest expense	143	71
Total other expense (income)	3,257	(231)
Loss before income taxes	(11,863)	(15,094)
Income tax (benefit) expense	(194)	122
Net loss	$ (11,669)	$ (15,216)

[1] Stock-based compensation as a component of these line items is as follows:

	Three Months Ended March 31,	
	2020	**2019**
Cost of revenue		
Subscriptions	$ 213	$ 154
Professional services	212	1,974
Operating expenses		
Sales and marketing	753	2,381
Research and development	553	2,115
General and administrative	1,745	601
Total stock-based compensation expense	$ 3,476	$ 7,225

The following table sets forth our consolidated statement of operations data expressed as a percentage of total revenue:

	Three Months Ended March 31,	
	2020	2019
Revenue		
Subscriptions	64.0 %	57.3 %
Professional services	36.0	42.7
Total revenue	100.0	100.0
Cost of revenue		
Subscriptions	6.8	5.9
Professional services	23.8	34.0
Total cost of revenue	30.6	39.9
Gross profit	69.4	60.1
Operating expenses		
Sales and marketing	43.3	47.4
Research and development	20.3	23.1
General and administrative	16.7	15.0
Total operating expenses	80.3	85.5
Operating loss	(10.9)	(25.4)
Other expense (income)		
Other expense (income), net	3.9	(0.5)
Interest expense	0.2	0.1
Total other expense (income)	4.1	(0.4)
Loss before income taxes	(15.0)	(25.0)
Income tax (benefit) expense	(0.2)	0.2
Net loss	(14.8) %	(25.2) %

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

Revenue

	Three Months Ended March 31,		
	2020	2019	% Change
	(dollars in thousands)		
Revenue			
Subscriptions	$ 50,436	$ 34,557	46.0 %
Professional services	28,428	25,747	10.4
Total revenue	$ 78,864	$ 60,304	30.8 %

Total revenue increased $18.6 million, or 30.8%, in the three months ended March 31, 2020 compared to the same period in 2019 due to an increase in our subscriptions revenue of $15.9 million and an increase in our professional services revenue of $2.7 million. Of the increase in subscriptions revenue, $8.2 million, or 51.9%, was attributable to on-premise software revenue while $7.1 million, or 44.8%, was attributable to cloud subscription revenue. With respect to new versus existing customers, $9.5 million of the increase in revenue stemmed from expanded deployments and corresponding sales of additional subscriptions to existing customers while the remaining $6.3 million was the result of sales of subscriptions to new customers, $2.8 million of which related to a three year on-premise contract which closed in the quarter ended March 31, 2020. The increase in professional services revenue was due to $5.9 million in sales to new customers, offset by a $3.2 million decrease in revenue from existing customers.

Cost of Revenue

	Three Months Ended March 31,		
	2020	2019	% Change
	(dollars in thousands)		
Cost of revenue			
Subscriptions	$ 5,383	$ 3,585	50.2 %
Professional services	18,736	20,481	(8.5)
Total cost of revenue	$ 24,119	$ 24,066	0.2 %
Subscriptions gross margin	89.3 %	89.6 %	
Professional services gross margin	34.1 %	20.5 %	
Total gross margin	69.4 %	60.1 %	

Cost of revenue increased $0.1 million, or 0.2%, in the three months ended March 31, 2020 compared to the same period in 2019, primarily due to a $1.0 million increase in other cost of revenue, a $0.9 million increase in professional services and product support personnel costs, and a $0.2 million increase in facility and overhead costs, largely offset by a $2.0 million decrease in contractor costs. The increase in other cost of revenue was due to increased hosting costs as sales of our cloud offering increased in the three months ended March 31, 2020. Personnel costs increased due to an increase in professional services and product support staff personnel headcount of 22.2% from March 31, 2019 to March 31, 2020. Facility and overhead costs increased to support our personnel growth. Contractor costs decreased in the three months ended March 31, 2020 compared to the same period in 2019 because of a decrease in the usage of subcontractors for professional service engagements.

Subscriptions gross margin decreased to 89.3% in the three months ended March 31, 2020 compared to 89.6% in the same period in 2019 due to increased hosting costs during the three months ended March 31, 2020 as sales of our cloud offering increased and became a larger proportion of our overall subscription revenue. Professional services gross margin increased to 34.1% in the three months ended March 31, 2020 compared to 20.5% in the same period in 2019 due to a decrease in the usage of subcontractors for professional services engagements, a $1.7 million decrease in stock-based compensation expense due to the vesting of restricted stock units granted to three of our co-founders during the three months ended March 31, 2019, and the timing of certain contracts which were delivered in 2019 but for which revenue was recognized in 2020. Due to the higher percentage of subscriptions revenue for the comparable periods, gross margin increased to 69.4% in the three months ended March 31, 2020 as compared to 60.1% in the same period in 2019.

Sales and Marketing Expense

	Three Months Ended March 31,		
	2020	2019	% Change
	(dollars in thousands)		
Sales and marketing	$ 34,172	$ 28,591	19.5 %
% of revenue	43.3 %	47.4 %	

Sales and marketing expense increased $5.6 million, or 19.5%, in the three months ended March 31, 2020 compared to the same period in 2019, primarily due to a $3.0 million increase in sales and marketing personnel costs, a $1.8 million increase in marketing costs, a $0.4 million increase in professional fees, and a $0.4 million increase in facility and overhead costs. Personnel costs increased due to an increase in sales and marketing personnel headcount by 6.6% from March 31, 2019 to March 31, 2020 and increased sales commissions driven by our revenue growth, partially offset by a $1.6 million decrease in stock-based compensation expense attributable to the vesting of restricted stock units granted to our co-founders which occurred in the three months ended March 31, 2019. Marketing costs increased due largely to costs incurred related to our annual user conference Appian World. Professional fees increased due to an increase in consulting fees to support our ongoing marketing events and activities. Facility and overhead costs increased to support our personnel growth.

Research and Development Expense

	Three Months Ended March 31,		
	2020	2019	% Change
	(dollars in thousands)		
Research and development	$ 16,038	$ 13,956	14.9 %
% of revenue	20.3 %	23.1 %	

Research and development expense increased $2.1 million, or 14.9%, in the three months ended March 31, 2020 compared to the same period in 2019, primarily due to a $1.9 million increase in research and development personnel costs and a $0.2 million increase in facility and overhead costs, partially offset by a $0.1 million decrease in professional fees. Personnel costs increased due to an increase in research and development personnel headcount by 30.2% from March 31, 2019 to March 31, 2020. Facility and overhead costs increased slightly to support our personnel growth. Professional fees decreased due to a decrease in consulting fees to support the development and enhancement of our platform.

General and Administrative Expense

	Three Months Ended March 31,		
	2020	2019	% Change
	(dollars in thousands)		
General and administrative expense	$ 13,141	$ 9,016	45.8 %
% of revenue	16.7 %	15.0 %	

General and administrative expense increased $4.1 million, or 45.8%, in the three months ended March 31, 2020 compared to the same period in 2019 due to a $2.4 million increase in general and administrative personnel costs, a $1.1 million increase in professional fees, and a $0.7 million increase in facility and overhead costs. Personnel costs increased due to an increase in general and administrative personnel headcount by 35.3% from March 31, 2019 to March 31, 2020 coupled with a $1.1 million increase in stock-based compensation expense during the three months ended March 31, 2020 which was primarily attributable to a stock option to purchase 700,000 shares of our Class A common stock granted to our Chief Executive Officer in the second quarter of 2019. Professional fees increased due to the use of consulting services to support our back-office initiatives. Facility and overhead costs increased to support our personnel growth.

Other Expense (Income), Net

	Three Months Ended March 31,		
	2020	2019	% Change
	(dollars in thousands)		
Other expense (income), net	$ 3,114	$ (302)	***
% of revenue	3.9 %	(0.5)%	

*** - Indicates a percentage that is not meaningful

Other expense (income), net increased by $3.4 million in the three months ended March 31, 2020 compared to the same period in 2019, primarily due to $3.5 million in foreign exchange losses in the three months ended March 31, 2020 compared to $0.1 million in foreign exchange losses in the three months ended March 31, 2019. The increase in foreign exchange losses was primarily due to currency fluctuations of the British Pound Sterling, Euro, Australian dollar, Singapore dollar, and Swedish krona versus the U.S. dollar during the three months ended March 31, 2020 compared to the same period in 2019.

Interest Expense

	Three Months Ended March 31,		% Change
	2020	2019	
	(dollars in thousands)		
Interest expense	$ 143	$ 71	***
% of revenue	0.2 %	0.1 %	

*** - Indicates a percentage that is not meaningful

Interest expense increased by $0.1 million in the three months ended March 31, 2020 compared to the same period in 2019, primarily due to commitment fees on the letter of credit outstanding.

Liquidity and Capital Resources

As of March 31, 2020, we had $149.2 million of cash and cash equivalents.

We believe our existing cash and cash equivalents, together with any positive cash flows from operations and available borrowings under our line of credit, will be sufficient to support working capital and capital expenditure requirements for at least the next 12 months. Our future capital requirements will depend on many factors, including our growth rate, the timing and extent of spending to support research and development efforts, the expansion of sales and marketing activities, particularly internationally, the introduction of new and enhanced products and functions as well as platform enhancements and professional services offerings, the level of market acceptance of our applications, spending we may incur on our new headquarters, and the global economic uncertainty and financial market conditions caused by the COVID-19 pandemic and its impact on our business. In the event additional financing is required from outside sources, we may be unable to raise the funds on acceptable terms, if at all. To the extent existing cash and cash equivalents and investments and cash from operations are not sufficient to fund future activities, we may need to raise additional funds. We may seek to raise additional funds through equity, equity-linked, or debt financings. If we raise additional funds through the incurrence of indebtedness, such indebtedness may have rights that are senior to holders of our equity securities and could contain covenants that restrict operations. Any additional equity financing may be dilutive to our existing stockholders. We recently have, and in the future may continue to, invest or acquire stakes in complementary businesses, products, or technologies, which could also require us to seek additional equity financing, incur indebtedness, or use cash resources. We have no present binding agreements or commitments to enter into any such acquisitions. If we are unable to raise additional capital when desired, our business, operating results, and financial condition could be adversely affected.

The following table shows a summary of our cash flows for the three months ended March 31, 2020 and 2019 (in thousands):

	Three Months Ended March 31,	
	2020	2019
Cash used in operating activities	(3,859)	(4,123)
Cash used in investing activities	(6,340)	(16,595)
Cash provided by financing activities	313	1,073

Sources of Funds

We have financed our operations in large part with equity and debt financing arrangements, including net proceeds of $77.8 million from our initial public offering in May 2017, net proceeds of $57.8 million from our underwritten public offering in August 2018, and net proceeds of $101.3 million from our underwritten public offering in September 2019, as well as through sales of subscriptions and professional services and borrowings under our credit facilities. We also financed $3.7 million of office furniture and fixtures and $0.8 million of computer hardware, both associated with the build out of our new headquarters.

In November 2017, we entered into a $20.0 million revolving line of credit with a lender. The facility matures in November 2022. We may elect whether amounts drawn on the revolving line of credit bear interest at a floating rate per annum equal to either the LIBOR or the prime rate plus an additional interest rate margin that is determined by the availability of borrowings under the revolving line of credit. The additional interest rate margin will range from 2.00% to 2.50% in the case of LIBOR advances and from 1.00% to 1.50% in the case of prime rate advances. The revolving line of credit contains an unused facility fee in an amount between 0.15% and 0.25% of the average unused portion of the revolving line of credit, which is payable quarterly. The agreement contains certain customary affirmative and negative covenants and requires us to maintain (1) an adjusted quick ratio of at least 1.35 and (ii) minimum adjusted EBITDA in the amounts and for the periods set forth in the agreement. Any amounts borrowed under the credit facility are collateralized by substantially all of our assets. We were in compliance with all covenants as of March 31, 2020. As of March 31, 2020, we had not made any borrowings under this revolving line of credit, and we had outstanding letters of credit totaling $11.1 million in connection with securing our leased office space.

Use of Funds

Our principal uses of cash are funding operations and other working capital requirements. More recently, we have utilized cash to pay for the acquisition of an entity we believe is complementary to our business. Over the past several years, revenue has increased significantly from year to year and, as a result, cash flows from customer collections have increased. However, operating expenses have also increased as we have invested in growing our business. Our uses of cash in 2020 included the acquisition of Novayre while cash uses in 2019 included the build out of our new headquarters, which included spend approximately $21.0 million above the $18.4 million tenant improvement allowance provided by the landlord for the build out, of which $4.5 million related to office furniture and fixtures and computer hardware that has been financed. For the three months ended March 31, 2020, substantially all of the $6.3 million of cash used in investing activities was related to the acquisition of Novayre.

Historical Cash Flows

Operating Activities

For the three months ended March 31, 2020, net cash used in operating activities of $3.9 million consisted of a net loss of $11.7 million, offset by $5.2 million in adjustments for non-cash items and $2.6 million of cash provided by changes in working capital. Adjustments for non-cash items consisted of stock-based compensation of $3.5 million and depreciation and amortization expense of $1.5 million, and bad debt expense of $0.2 million. The increase in cash and cash equivalents resulting from changes in working capital primarily consisted of a $5.8 million decrease in accounts receivable stemming from increased cash collections during the three months ended March 31, 2020, a $1.2 million increase in operating lease liabilities, and a $0.5 million decrease in deferred commissions. These increases to working capital were partially offset by a $2.5 million decrease in deferred revenue as a result of decreased subscription sales, a $1.8 million decrease in accounts payable and accrued expenses primarily due to the timing of payments, and a $0.4 million decrease in accrued compensation expense due largely to a decrease in employee reimbursable expenses.

For the three months ended March 31, 2019, net cash used in operating activities of $4.1 million consisted of a net loss of $15.2 million, offset by $8.0 million in adjustments for non-cash items and $3.1 million of cash provided by changes in working capital. Adjustments for non-cash items consisted of stock-based compensation of $7.2 million and depreciation and amortization expense of $0.8 million. The increase in cash and cash equivalents resulting from changes in working capital primarily consisted of a $1.9 million increase in deferred revenue as a result of increased subscription sales. There was also a $3.7 million increase in deferred rent, non-current as a result of taking initial possession of the second phase of our new headquarters in February 2019 and recording an additional lease incentive obligation. There was also a $1.6 million increase in accounts payable and accrued expenses primarily due to the timing of payments and a $1.3 million decrease in prepaid expenses and other assets primarily due to a decrease in the non-trade receivable resulting from out tenant improvement allowance. Additionally, the $4.5 million of tenant improvement allowance reimbursements received during the three months ended March 31, 2019 are considered a source of cash in operating activities whereas the capital expenditures are recorded as cash used in investing activities. These increases were partially offset by a $0.8 million increase in accounts receivable due to increased sales in the three months ended March 31, 2019 as well as the timing of billings and collections. There was also a $2.9 million increase in deferred commissions due to increased sales, a $1.5 million decrease in accrued compensation and related benefits primarily due to the payment of year-end bonuses, and a $0.1 million decrease in other current liabilities.

Investing Activities

For the three months ended March 31, 2020, net cash used in investing activities was $6.3 million which was primarily the result of $6.1 million in payments, net of cash acquired, related to the acquisition of Novayre. In addition, there were approximately $0.2 million in purchases of property and equipment. For the three months ended March 31, 2019, net cash used in investing activities was $16.6 million and related primarily to the build-out of our new headquarters and the purchase of property and equipment.

Financing Activities

For the three months ended March 31, 2020, net cash provided by financing activities was $0.3 million, consisting of $0.7 million in proceeds received from stock option exercises partially offset by $0.4 million in principal payments on finance leases.

For the three months ended March 31, 2019, net cash provided by financing activities was $1.1 million, consisting of proceeds received from stock option exercises.

Contractual Obligations and Commitments

We entered into a Second Amendment to Deed of Lease, or the Lease Second Amendment, with Tamares 7950 Owner LLC, or the Landlord, effective as of January 1, 2020. The Lease Second Amendment modified the Deed of Lease dated as of April 17, 2018, as amended on December 23, 2019, between us and Landlord, or the Lease, for our headquarters in McLean, Virginia. Under the Lease Second Amendment, we exercised an option to expand its lease to the fourth floor of the North Tower, or the Fourth Floor, adding approximately 34,158 square feet to the premises. We will commence occupancy of the Fourth Floor on the sooner of the completion of certain improvements to the Fourth Floor and October 14, 2020. The monthly base rent for the Fourth Floor will be $87,388 for the first 27 months of the lease term, subject to periodic increases thereafter.

Other than as described above, as of March 31, 2020, there was no material change in our contractual obligations and commitments from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020.

Off-Balance Sheet Arrangements

As of March 31, 2020, we did not have any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. We do not engage in off-balance sheet financing arrangements. In addition, we do not engage in trading activities involving non-exchange traded contracts. We therefore believe we are not materially exposed to any financing, liquidity, market, or credit risks that could arise if we had engaged in these relationships.

Critical Accounting Policies and Estimates

The preparation of our condensed consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and judgments that affect the amounts reported in those financial statements and accompanying notes. Although we believe the estimates we use are reasonable, due to the inherent uncertainty involved in making those estimates, actual results reported in future periods could differ from those estimates. Significant estimates and judgments embedded in the consolidated financial statements for the periods presented include revenue recognition, stock-based compensation, the valuation of goodwill and intangible assets, and income taxes.

While we continue to monitor the developments surrounding the COVID-19 pandemic, we are not aware of any specific events or circumstances that would require us to update our estimates, assumptions, and judgments.

There have been no material changes in our critical accounting policies from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020.

Recent Accounting Pronouncements

See Note 2 to the unaudited condensed consolidated financial statements in Part I, Item 1 of this Quarterly Report on Form 10-Q for a discussion of recent accounting pronouncements.

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 the result of fluctuations in interest rates and foreign currency exchange rates. The uncertainty that exists with respect to the economic impact of the global COVID-19 pandemic has also introduced significant volatility in the financial markets.

Interest Rate Risk

We had cash and cash equivalents of $149.2 million as of March 31, 2020, which consisted of cash in readily available checking accounts and overnight repurchase investments. These securities are not dependent on interest rate fluctuations that may cause the principal amount of these assets to fluctuate.

At March 31, 2020, we had no outstanding borrowings.

Foreign Currency Exchange Risk

Our reporting currency is the U.S. dollar. Due to our international operations, we have foreign currency risks related to revenue and operating expenses denominated in currencies other than the U.S. dollar, primarily the British Pound Sterling, Euro, Australian Dollar, Singaporean Dollar, Swedish Krona, and Swiss Franc. Our sales contracts are primarily denominated in the local currency of the customer making the purchase. In addition, a portion of operating expenses are incurred outside the United States and are denominated in foreign currencies. Decreases in the relative value of the U.S. dollar to other currencies may negatively affect revenue and other operating results as expressed in U.S. dollars. We do not believe an immediate 10% increase or decrease in the relative value of the U.S. dollar to other currencies would have a material effect on operating results.

We have experienced and will continue to experience fluctuations in net loss as a result of transaction gains or losses related to remeasuring certain current asset and current liability balances denominated in currencies other than the functional currency of the entities in which they are recorded. We have not engaged in the hedging of foreign currency transactions to date although we may choose to do so in the future.

Item 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act that are designed to ensure information required to be disclosed by a company in the reports 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 information required to be disclosed by a company in the reports it files or submits under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

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 March 31, 2020. Based on the evaluation of our disclosure controls and procedures as of March 31, 2020, 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.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes 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 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 the objectives of the control system are met. Further, the design of a control system must reflect the fact 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 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 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 may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, financial condition, or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Item 1A. RISK FACTORS

Our business is subject to risks and events that, if they occur, could adversely affect our financial condition and results of operations and the trading price of our securities. In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors described in "Part I, Item 1A. Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020.

Other than as set forth below, there have been no material changes from the risk factors described in "Part I, Item 1A. Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2019:

The effects of national and global epidemics, including the recent COVID-19 pandemic, could have an adverse impact on our business, operations, and the markets and communities in which we operate.

In March 2020, the World Health Organization declared the outbreak of COVID-19 a pandemic. Our business and operations could be adversely affected by national and global epidemics, including the recent COVID-19 pandemic, impacting the markets and communities in which we operate.

In response to the COVID-19 pandemic, many state, local and foreign governments have put in place, and others in the future may put in place, quarantines, executive orders, shelter-in-place orders, and similar government orders and restrictions in order to control the spread of the disease. Such orders or restrictions, or the perception that such orders or restrictions could occur, have resulted in business closures, work stoppages, slowdowns and delays, work-from-home policies, and travel restrictions, among other effects that could negatively impact productivity and disrupt our operations. For example, we have implemented a work-from-home policy for employees, and we may take further actions that alter our operations as may be required by federal, state, or local authorities or which we determine are in the best interests of our employees and stockholders.

In addition, while the potential impact and duration of the COVID-19 pandemic on the global economy and our business in particular may be difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. The COVID-19 pandemic also could reduce the demand for our customers' products and services, which could negatively impact our customers' willingness to renew or enter into contracts with us or our ability to collect accounts receivable on a timely basis, which, if significant, could materially and adversely affect our business, results of operations, and financial condition.

The global pandemic of COVID-19 continues to rapidly evolve, and we will continue to monitor the COVID-19 situation closely. The ultimate impact of the COVID-19 pandemic or a similar health epidemic is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, operations, or the global economy as a whole, which makes our future results difficult to predict.

In addition, to the extent the ongoing COVID-19 pandemic adversely affects our business and results of operations, it may also have the effect of heightening many of the other risks and uncertainties described in "Part I, Item 1A. Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on February 20, 2020.

Unfavorable conditions in the global economy or the vertical markets we serve could limit our ability to grow our business and negatively affect our operating results.

General worldwide economic conditions have experienced significant instability due to the global economic uncertainty and financial market conditions caused by the COVID-19 pandemic. These conditions make it extremely difficult for customers and us to accurately forecast and plan future business activities and could cause customers to reduce or delay their software spending. For example, we believe there could be some short-term impact from the COVID-19 pandemic on spending by our customers. At this time, the potential impact on customer spend from the COVID-19 pandemic is difficult to predict and, therefore, it is not possible to fully determine the impact on our future results. Historically, economic downturns have resulted in overall reductions in software spending. If macroeconomic conditions deteriorate or are characterized by uncertainty or volatility, customers may curtail or freeze spending on software in general and for software such as ours specifically, which could have an adverse impact on our business, financial condition, and operating results.

We have historically generated a majority of our revenue from customers in the financial services, life sciences, and U.S. federal government verticals. While these verticals have not been affected as severely by weak economic conditions caused by COVID-19 as the retail, hospitality, and entertainment industries, we cannot assure these verticals will not suffer more severe losses in the future. Furthermore, we cannot predict the timing, strength, or duration of any economic slowdown or recovery. In addition, even if the overall economy is robust, we cannot assure the market for services such as ours will experience growth or that we will experience growth.

We may fail to meet our publicly announced guidance or other expectations about our business and future operating results, which could cause our stock price to decline.

We have provided and may continue to provide guidance about our business, future operating results, and other business metrics. In developing this guidance, our management must make certain assumptions and judgments about our future performance. Some of those key assumptions relate to the impact of COVID-19 and the associated economic uncertainty on our business and the timing and scope of economic recovery globally, which are inherently difficult to predict. Furthermore, analysts and investors may develop and publish their own projections of our business, which may form a consensus about our future performance. Our business results may vary significantly from such guidance or that consensus due to a number of factors, many of which are outside of our control, including due to the global economic uncertainty and financial market conditions caused by the COVID-19 pandemic, which could adversely affect our operations and operating results. Furthermore, if our publicly announced guidance of future operating results fails to meet our previously announced guidance or the expectations of securities analysts, investors, or other interested parties, the price of our common stock would decline.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us and limit the market price of our Class A common stock.

Pursuant to our amended and restated certificate of incorporation, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or (4) any action asserting a claim governed by the internal affairs doctrine. Our amended and restated certificate of incorporation also provides the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. Our amended and restated certificate of incorporation further provides any person or entity purchasing or otherwise acquiring any interest in shares of our Class A common stock is deemed to have notice of and consented to the foregoing provisions. The forum selection clause in our amended and restated certificate of incorporation may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us and limit the market price of our Class A common stock.

If we are unable to successfully transition to new leadership in key departments, our results could suffer.

Appian has undergone change in departments that are directly responsible for substantially all of Appian's revenue. While Appian believes its new leaders in these departments are highly qualified and will perform well in their roles, there can be no assurances the transition to new leadership will be executed without any disruption or effect on performance. New leadership requires time to become familiar with Appian's product offerings and its customer base, and such transition could lead to delayed implementation of strategies, revision of key practices and policies, re-training of personnel, and other disruptions.

While we will make efforts to mitigate such risk through extensive collaboration at the executive level, the effects of this transition could have an impact on our ability to sustain our growth in revenues or our ability to retain existing talent within the organization.

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

a. Recent Sales of Unregistered Equity Securities

Not applicable.

b. Use of Proceeds

Not applicable.

c. Issuer Purchases of Equity Securities

Not applicable.

Item 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

Item 5. OTHER INFORMATION

Item 5.02 Departure of Certain Officers; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

Departure of David Mitchell as Senior Vice President, Worldwide Sales

On May 4, 2020, David Mitchell notified us he will be stepping down from his position as Senior Vice President, Worldwide Sales, effective May 31, 2020. Mr. Mitchell's separation is not the result of any disagreement with us on any matter relating to our operations, policies, or practices. In connection with his departure, we entered into a separation agreement with Mr. Mitchell that includes a general release of claims and provides for a severance payment equal to 12 months of his current base salary. The separation agreement also provides that Mr. Mitchell will work to transfer his job responsibilities through the date of his departure.

Appointment of Eric Cross as Chief Revenue Officer

On May 5, 2020, our Board of Directors approved the appointment of Eric Cross as our Chief Revenue Officer, effective May 11, 2020.

There is no arrangement or understanding between Mr. Cross and any other person pursuant to which he was selected as an officer. Furthermore, there is no family relationship between Mr. Cross and any of our other directors or executive officers, and Mr. Cross is not a party to any transactions of the type listed in Item 404(a) of Regulation S-K.

Eric Cross, age 52, previously served as the Chief Revenue Officer of Egnyte, a privately held enterprise content collaboration software company from August 2019 to March 2020. Prior to Egnyte, Mr. Cross served as Vice President, Worldwide Sales, for Apigee, a publicly held enterprise lifecycle API management software company from 2013 through July 2019. From 2008 to 2013, Mr. Cross served in several positions at Blue Coat Systems, an enterprise software company. Mr. Cross holds a B.B.A. degree in risk management from the University of Georgia.

On May 6, 2020, we and Mr. Cross entered into an employment agreement, effective as of May 11, 2020, pursuant to which Mr. Cross will be employed on an “at-will” basis. Pursuant to his employment agreement. Mr. Cross will be entitled to a payment equal to six months’ salary (“Base Salary Severance”) if his employment is terminated within the first year without cause, and Base Salary Severance, acceleration of any unvested equity, and payment of premiums for continued health benefits under COBRA for up to six months if his employment is terminated by us without good reason, without cause, or from a change in control. Mr. Cross’s initial annual base salary will be $400,000 per year, subject to review and adjustment from time to time at the discretion of our Board of Directors. Mr. Cross will also be eligible to earn an annual performance cash bonus, subject to his achievement of annual predetermined objectives to be determined by our Board of Directors.

The foregoing descriptions of Mr. Mitchell’s separation agreement and Mr. Cross’ employment agreement are not complete and are qualified in their entirety by reference to the separation agreement and the employment agreement, which we expect to file with our Quarterly Report on Form 10-Q for the quarter ending June 30, 2020.

Item 6. EXHIBITS

Exhibit No.	Description	Reference
10.1	Second Amendment to Deed of Lease, effective as of January 1, 2020, between Appian Corporation and Tamares 7950 Owner LLC.	Previously filed as Exhibit 10.16 to the Company's Annual Report on Form 10-K (File No. 001-38098) filed with the Securities and Exchange Commission on February 20, 2020, and incorporated herein by reference.
10.2	Employment Agreement, dated as of September 7, 2012, by and between Appian Corporation and Robert Kramer.	Attached.
10.3	Employment Agreement, dated as of February 16, 2018, by and between Appian Corporation and David Mitchell.	Attached.
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Attached.
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Attached.
32.1	Certifications of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Attached.
101.INS	XBRL Instance Document - The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.	Attached.
101.SCH	XBRL Taxonomy Extension Schema Document	Attached.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Attached.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Attached.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Attached.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Attached.
104	Cover page formatted as Inline XBRL and contained in Exhibit 101	Attached.

SIGNATURE

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.

		APPIAN CORPORATION
May 7, 2020	By:	/s/ Matthew Calkins
		Name: Matthew Calkins
		Title: Chief Executive Officer and Chairman of the Board (on behalf of the Registrant and as Principal Executive Officer)

Exhibit 10.2

APPIAN CORPORATION EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT ("Agreement") is made by and between APPIAN CORPORATION, a Delaware corporation, and its affiliates, successors, assigns and agents ("Appian" or "Company"), and **Bob Kramer** ("you" and all similar references or "employee") (collectively, the "parties") in consideration of employee's at-will employment relationship with Appian.

1. Employment. Your employment with Appian is at-will. That means that you or Appian may terminate your employment at any time, for any reason or for no reason at all. By accepting employment with Appian, you agree: (a) to devote your professional time, best efforts, attention and energies to Appian's business and to refrain from professional practice other than on account of or for the benefit of Appian; (b) to perform any and all work assigned to you by Appian faithfully and at such times and places as Appian designates; (c) to abide by all policies of Appian, both current and future; and (d) that you are not currently bound by any agreement that could prohibit or restrict you from being employed by Appian or from performing any duties under this Agreement.

2. Compensation and Benefits. Upon the commencement of your employment, Appian will pay you a base salary, less required and authorized withholding and deductions, payable in installments in accordance with its normal payroll practices. From time to time, Appian may adjust your salary and other compensation at its discretion. During your employment, you will be eligible to participate in any employee compensation or benefit plans (including group health and 401(k)), incentive award programs, and to receive other fringe benefits that Appian may decide to make available to you. Appian may add, amend or discontinue any of its plans, programs, policies and procedures at any time for any or no reason with or without notice.

3. Restrictive Covenants. You further understand that Appian invests significant resources in the training and development of its employees. Therefore, in light of this, you agree to the following restrictions which are reasonably designed to protect Appian's legitimate business interests without unreasonably restricting your ability to seek or obtain work upon voluntary or involuntary termination of your employment with Appian:

3.1 Prohibition on Competition. During your employment with Appian and for a period of twelve (12) months from the date your employment with Appian terminates, you shall not, within the United States of America, directly or indirectly, provide, aid or assist any other person or entity in providing Similar Products or Services for or on behalf of any Named Company. This provision shall not be construed to prevent you from obtaining employment with any person or entity that provides Similar Products or Services, so long as your new endeavor does not violate the above-stated prohibition.

3.2 Covenant Not to Solicit or Perform Services for Customers or Prospective Customers. During your employment with Appian and for a period of eighteen (18) months from the date your employment with Appian terminates, you agree not to contact, directly or indirectly, any Customer or Prospective Customer with whom you have had any written, electronic, verbal, or other contact on behalf of Appian, to sell, market, render or provide Similar Products or Services.

3.3 Covenant Not to Perform Services for Appian's Business Partners. During your employment with Appian and for a period of twelve (12) months from the date your employment with Appian terminates, you agree not to provide, directly or indirectly, Similar Products or Services for or on behalf of any of Appian's Business Partners.

3.4 Restriction on the Solicitation of Appian's Employees. During your employment with Appian, and for a period of twelve (12) months from the date your employment with Appian terminates, you agree not to, directly or indirectly, induce or solicit any Appian employee to terminate his or her employment or to seek or accept any employment with any other business entity.

3.5 Prohibition from Employing or Retaining Appian's Employees. During your employment with Appian and for a period of twelve (12) months from the date your employment with Appian terminates, you agree not to retain, hire or employ, directly or indirectly, any Appian employee who was employed by Appian on your termination date, or during the twelve (12) months preceding your termination date.

3.6 Definitions. For the purpose of this Section 3 of the Agreement, the following definitions shall apply:

3.6.1 "Similar Products or Services" shall include (i) any Business Process Management or workflow software product, whether sold as an on-premise, hosted, or Software-as-a-Service offering; (ii) any software designed to replace or upgrade Army Knowledge Online or Defense Knowledge Online; (iii) e-procurement systems; (iv) human resources on-boarding and recruiting software for government agencies; and (v) any services pertaining to the implementation of such software technologies described in items 3.6.1(i)-3.6.1(iv) above.

3.6.2 "Customer" means any entity for which Appian has performed Services during your employment with the Company.

3.6.3 "Named Company" shall include any one of the fifteen companies listed in Exhibit A. At any time during the Specified Periods, in any year that this agreement is in effect, Appian may modify or replace companies listed in Exhibit A, at Appian's sole discretion; however, Appian must, in good faith, believe that all companies listed in Exhibit A are competitors of Appian. At any time, you may request a copy of Exhibit A from Appian's legal department.

3.6.4 "Specified Period" means one of the following quarterly two week periods: January 1 through January 15; April 1 through April 15; July 1 through July 15; and October 1 through October 15.

3.6.5 "Prospective Customer" means any entity that is not a Customer but with respect to whom, within twelve (12) months from your termination date, you conducted, prepared, submitted (or assisted or supervised such conduct) any proposal, client development work product or marketing efforts on behalf of Appian.

3.6.6 The term "Business Partner" means any entity that had a contractual agreement with Appian during your employment with the Company to engage in joint marketing and/or sales efforts.

3.6.7 The term "induce" means the act or process of enticing or persuading another person to take a certain course of action.

3.6.8 The term "solicit" means the act or process of obtaining by entreaty, persuasion, or application, formal or otherwise, a certain course of conduct.

3.7 Reasonableness of Restrictions. You agree that the restrictions set forth in this Section 3 are reasonable, proper and no greater than necessary to protect the legitimate business interest of Appian and do not constitute an unlawful or unreasonable restraint upon your ability to earn a livelihood. In the event that any term set forth above including, but not limited to, the duration of the restraint or the geographic scope, is held unenforceable by court of competent jurisdiction, the parties agree that the unenforceable term may be reduced or modified by the court of competent jurisdiction.

3.8 Waiver. Any of the provisions listed in Sections 3.1 - 3.5 above may be waived in advance only with the express written consent of the President of Appian Corporation.

4. Employee Representations. You represent and warrant that you have the legal ability to perform your duties for Appian and that your employment does not violate the terms of any agreement, whether written or otherwise, including but not limited to any non compete agreement, that would limit or impair your ability to perform your duties. You further represent and warrant that you will not use any confidential or proprietary information from a prior employer, or any other third party.

5. Nondisclosure of Confidential Information. You acknowledge that all information related to the business of Appian that is not in the public domain, nor available from sources other than Appian is considered Confidential. For the purpose of this Agreement, Confidential Information also includes Appian's Trade Secrets and/or Proprietary Information and Confidential Information of third parties provided to Appian under terms of a confidentiality or nondisclosure agreement.

For the purpose of this Agreement, the definition of a "Trade Secret" shall be congruent with the Virginia Uniform Trade Secret Act, Virginia Code Section 59.1-336(4). "Proprietary Information" includes, but is not limited to, the following types of information (whether or not reduced to writing): Appian's fees, rates, sales data, customer lists, discoveries, inventions, concepts, software in various states of development and related documentation, design sheets, design data, drawings, design specifications, techniques, consulting or development methodologies, models, source code, object code, documentation, diagrams, flow charts, research, development, processes, training materials, templates, procedures, "know-how," tools, client identities, client accounts, web design needs, client advertising needs and history, client reports, client proposals, product information and reports, accounts, billing methods, pricing, data, sources of supply, business methods, production or merchandising systems or plans, marketing, sales and business strategies and plans, finances, operations, and information regarding employees. Notwithstanding the foregoing, information publicly known that is generally employed by the trade at or after the time you first learn of such information (other than as a result of your breach of this Agreement) shall not constitute Proprietary Information.

You agree to hold Confidential Information in the strictest of confidence and further agree not to release, divulge, misappropriate, publish or communicate Confidential Information to any person or entity outside of Appian without the express written consent of Appian's President or his express designee. You understand that the obligations contained in this Section 5 are effective upon your first day of employment, or earlier (if you receive Confidential Information sooner), and shall survive the expiration of this Agreement, regardless of the reason your employment with Appian is terminated. Furthermore, nothing contained in this Section 4 of the Agreement is designed to waive its statutory rights to seek relief pursuant to the Virginia Trade Secrets Act, Virginia Code Section 59.1-336 et seq.

6. Inventions. For the purposes of this Agreement, "Inventions" mean any concepts, ideas, processes, designs, specifications, improvements, discoveries or other developments, whether or not reduced to practice or patentable, that I conceive or create, in whole or in part, alone or jointly with others, during my employment by the Company, whether during normal work hours or otherwise, which (i) directly relate to the Company's business (including without limitation the Company's present or contemplated products and research) or to tasks assigned to me by or on behalf of the Company or (ii) are written or developed using any of the Company's equipment, facilities, materials, trade secrets, labor, money, time or other resources. "Inventions" also shall be deemed to include any concepts, ideas, processes, designs, specifications, improvements, discoveries or other developments, whether or not reduced to practice or patentable, that I conceive or create within ninety (90) days after my employment with the Company ends that directly relate to the Company's business as conducted prior to the date my employment ended or to any tasks assigned to me by or on behalf of the Company at any time during the last two (2) years of my employment by the Company.

   6.1 Assignment of Inventions. I agree that all Inventions are the sole and exclusive property of the Company and hereby assign to the Company all right, title and interest in all Inventions.

7. Termination and Resignation. Your employment is terminable at-will. That means that you or Appian may terminate your employment relationship at any time, for any reason or no reason at all. In the event that Appian terminates your employment, you will be entitled to earned and unpaid salary, less required and authorized withholdings and deductions. In the event that you terminate your employment, you will be entitled to earned and unpaid salary, less required and authorized withholdings and deductions, through your last day of employment. Regardless of the basis of your termination of employment, you agree to provide all assistance requested by Appian in transitioning your duties, responsibilities, clients and other Appian relationships to other Appian personnel, both during your employment and after your termination or resignation. Furthermore, you agree to cooperate with Appian from time to time as necessary concerning matters that may have arisen during the course of your employment with Appian. Such cooperation is an express condition of this Agreement.

8. Return of Company Materials. Upon the termination of your employment with Appian, regardless of the basis of the termination, you shall promptly deliver to Appian any of the following items or materials: any laptop or personal computer issued to you, or paid for, by Appian; any material, in any form whatsoever, that constitutes Appian's Confidential Information, Trade Secret and/or Proprietary Information; the Employee Handbook; the Consulting Best Practices Book ("CBP"); and any other material that is the property of Appian Corporation or Appian Corporation's customers, including, but not limited to, books, key cards, passes, and other material.

9. Investments. This Agreement shall not be interpreted to prohibit you from making passive personal investments or conducting private business affairs subject to Paragraph 1 of this Agreement. However, you shall not directly or indirectly acquire, hold, or retain any interest in any business competing with Appian's business; provided, however, that the foregoing shall not prohibit you from owning securities of not in excess of 2% of any class of securities of a company if such class of securities is registered with the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended.

10. Authority Limited. It is expressly agreed that you shall have no right or authority at any time to make any contract or binding promise of any nature on behalf of Appian, without Appian's express written consent except within established duties of your employment.

11. Assignment and Survival. The rights and obligations of Appian under this Agreement shall inure to the benefit of, and shall be binding upon, the successors and assigns of Appian. Your rights and obligations are personal and may not be assigned or delegated without the Company's proper written consent. However, if you become deceased prior to the expiration of this Agreement, any sums that may be due to you as of the date of your death shall be paid to your executor, administrator, heirs, personal representative, successors or assigns. Furthermore, it is expressly understood that the obligations under Sections 3 and 4 of this Agreement shall survive any termination of this Agreement.

12. Remedies. You acknowledge that the damages Appian will suffer as a result of your breach of any provision of Sections 3, 4 or 5 of this Agreement may be impossible to reasonably calculate and that violation of this Agreement will irreparably harm Appian. Accordingly, you agree that Appian will be entitled, in addition to all other rights and remedies that may be available, to obtain injunctive relief enjoining and restraining you from committing a breach of this Agreement. You also agree that in the event Appian is successful in whole or in part in any legal action against you under this Agreement, Appian will be entitled to recover all costs, including reasonable attorney fees from you.

13. Severability. If any provision of this Agreement is held invalid or unenforceable for any reason, the invalidity shall not nullify the validity of the remaining provisions of this Agreement. If any provision of this Agreement is determined by a court to be overly broad in duration, geographical coverage or scope, or unenforceable for any other reason, such provision will be narrowed so that it will be enforced as much as permitted by law.

14. Choice of Law. The laws of the Commonwealth of Virginia shall govern this Agreement. You and Appian consent to the jurisdiction and venue of any state or federal court in the Commonwealth of Virginia.

15. Waiver. Any party's waiver of any other party's breach of any provision of this Agreement shall not waive any other right or any future breaches of the same or any other provision. Appian's President may, in his or her sole discretion, waive in writing any provision of this Agreement.

16. Notices. Any notices, requests, demands or other communications provided for in this Agreement shall be in writing and shall be given either manually or by certified mail. Notice to Appian shall be addressed to Human Resources. Notice to you shall be addressed to the last address you have filed with Human Resources. You may change your address by providing written notice in accordance with this Section 16.

17. Entire Agreement. This Agreement is the entire agreement between you and Appian regarding these matters and supersedes any verbal and written agreements on such matters. This Agreement may be modified only by written agreement signed by you and Appian's President. All Section headings are for convenience only and do not modify or restrict any of this Agreement's terms.

18. Counterparts. For convenience of the parties, this Agreement may be executed in one or more counterparts, each of which shall be deemed an original for all purposes.

The parties state that they have read, understood and agree to be bound by this Agreement and that they have had the opportunity to seek the advice of legal counsel before signing it and have either sought such counsel or have voluntarily decided not to do so:

APPIAN CORPORATION		EMPLOYEE	
By:	(Signature)	By:	
Title:	Sr. HR Manager	Printed Name:	ROBERT C KRAMER
Date:	9/7/12	Date:	9/7/2012

Employment Agreement Exhibit A

Named Companies:

1. Cordys
2. csc
3. EMC
4. OpenText
5. HandySoft Corporation
6. IBM
7. Oracle Corporation
8. Pegasystems, Inc.
9. Salesforce.com
10. Software AG
11. TIBCO Software, Inc.
12. Progress Software

Exhibit 10.3

APPIAN CORPORATION EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT (“Agreement”) is made by and between APPIAN CORPORATION, a Delaware corporation, and its affiliates, successors, assigns and agents (“Appian” or “Company”), and **David Mitchell** (“you” and all similar references or “employee”) (collectively, the “parties”) in consideration of employee’s at-will employment relationship with Appian.

1. Employment. By accepting employment with Appian, you agree: (a) to devote your professional time, best efforts, attention and energies to Appian’s business and to refrain from outside employment or professional practice other than on account of or for the benefit of Appian (unless Appian consents in writing to such outside work); (b) to perform any and all work assigned to you by Appian faithfully and at such times and places as Appian designates; (c) to abide by all policies of Appian, both current and future; and (d) that you are not currently bound by any agreement that could prohibit or restrict you from being employed by Appian or from performing any duties under this Agreement.

2. Compensation and Benefits. Upon the commencement of your employment, Appian will pay you as provided in your offer letter (or as otherwise agreed in writing), payable in accordance with its normal payroll practices. From time to time, Appian may adjust your salary and other compensation at its discretion. During your employment, if you meet the minimum requirements of Appian’s plans, you will be eligible to participate in any employee compensation or benefit plans (including group health and 401(k)), incentive award programs, and to receive other fringe benefits that Appian may decide to make available to you. Appian may add, amend or discontinue any of its plans, programs, policies and procedures at any time for any or no reason with or without notice.

3. Restrictive Covenants. You further understand that Appian invests significant resources in the training and development of its employees. Therefore, in light of this, you agree to the following restrictions which are reasonably designed to protect Appian’s legitimate business interests without unreasonably restricting your ability to seek or obtain work upon voluntary or involuntary termination of your employment with Appian:

   3.1 Prohibition on Competition. During your employment with Appian and for a period of twelve (12) months from the date your employment with Appian terminates, you shall not, within the United States of America, directly or indirectly, provide, aid or assist any other person or entity in providing Similar Products or Services for or on behalf of any Named Company in the same or similar functional capacity as you did for Appian. This provision shall not be construed to prevent you from obtaining employment with any person or entity that provides Similar Products or Services, so long as your new endeavor does not violate the above-stated prohibition.

   3.2 Covenant Not to Solicit or Perform Services for Customers or Prospective Customers. During your employment with Appian and for a period of eighteen (18) months from the date your employment with Appian terminates, you agree not to contact, directly or indirectly, any Customer or Prospective Customer with whom you have had any written, electronic, verbal, or other contact on behalf of Appian, to sell, market, render or provide Similar Products or Services.

   3.3 Covenant Not to Perform Services for Appian’s Business Partners. During your employment with Appian and for a period of twelve (12) months from the date your employment with Appian terminates, you agree not to provide, directly or indirectly, Similar Products or Services for or on behalf of any of Appian’s Business Partners.

   3.4 Restriction on the Solicitation of Appian’s Employees. During your employment with Appian, and for a period of twelve (12) months from the date your employment with Appian terminates, you agree not to, directly or indirectly, induce or solicit any Appian employee to terminate his or her employment or to seek or accept any employment with any other business entity.

   3.5 Prohibition from Employing or Retaining Appian’s Employees. During your employment with Appian and for a period of twelve (12) months from the date your employment with Appian terminates, you agree not to retain, hire or employ, directly or indirectly, any Appian employee who was employed by Appian on your termination date, or during the twelve (12) months preceding your termination date.

   3.6 Definitions. For the purpose of this Section of the Agreement, the following definitions shall apply:

      3.6.1 “Similar Products or Services” shall include (i) any Low-Code software development Platform, Business Process Management software, Case Management software, Application Platform as a Service, or workflow software product, whether sold as an on-premise, hosted, or Software-as-a-Service offering; (ii) e-procurement systems; and (iii) any services pertaining to the implementation of such software technologies described in items 3.6.1(i)-3.6.1(ii) above.

3.6.2 “Customer” means any entity for which Appian has performed Services during your employment with the Company.

3.6.3 “Named Company” shall include any one of the companies listed in Exhibit A. At any time during the Specified Periods, in any year that this agreement is in effect, Appian may modify or replace companies listed in Exhibit A, at Appian’s sole discretion; however, Appian must, in good faith, believe that all companies listed in Exhibit A are competitors of Appian. At any time, you may request a copy of Exhibit A from Appian’s legal department.

3.6.4 “Specified Period” means one of the following quarterly two week periods: January 1 through January 15; April 1 through April 15; July 1 through July 15; and October 1 through October 15.

3.6.5 “Prospective Customer” means any entity that is not a Customer but with respect to whom, within twelve (12) months from your termination date, you conducted, prepared, submitted (or assisted or supervised such conduct) any proposal, client development work product or marketing efforts on behalf of Appian.

3.6.6 The term “Business Partner” means any entity that had a contractual agreement with Appian during your employment with the Company to engage in joint marketing and/or sales efforts, professional services (as a prime contractor or subcontractor), or as a re-seller of the Company’s software.

3.6.7 The term “induce” means the act or process of enticing or persuading another person to take a certain course of action.

3.6.8 The term “solicit” means the act or process of obtaining by entreaty, persuasion, or application, formal or otherwise, a certain course of conduct.

3.7 Reasonableness of Restrictions. You agree that the restrictions set forth in this Section are reasonable, proper and no greater than necessary to protect the legitimate business interest of Appian and do not constitute an unlawful or unreasonable restraint upon your ability to earn a livelihood. In the event that any term set forth above including, but not limited to, the duration of the restraint or the geographic scope, is held unenforceable by court of competent jurisdiction, the parties agree that the unenforceable term may be reduced or modified by the court of competent jurisdiction.

3.8 Waiver. Any of the provisions listed in Sections 3.1 – 3.5 above may be waived in advance only with the express written consent of the CEO of Appian Corporation.

4. Employee Representations. You represent and warrant that you have the legal ability to perform your duties for Appian and that your employment does not violate the terms of any agreement, whether written or otherwise, including but not limited to any non- compete agreement, that would limit or impair your ability to perform your duties. You further represent and warrant that you will not use any confidential or proprietary information from a prior employer, or any other third party.

5. Nondisclosure of Confidential Information. You acknowledge that all information related to the business of Appian that is not in the public domain, nor available from sources other than Appian is considered Confidential. For the purpose of this Agreement, Confidential Information also includes Appian’s Trade Secrets and/or Proprietary Information and Confidential Information of third parties provided to Appian under terms of a confidentiality or nondisclosure agreement.

   For the purpose of this Agreement, the definition of a “Trade Secret” shall be congruent with the Virginia Uniform Trade Secret Act, Virginia Code Section 59.1-336(4). “Proprietary Information” includes, but is not limited to, the following types of information (whether or not reduced to writing): Appian’s fees, rates, sales data, customer lists, discoveries, inventions, concepts, software in various states of development and related documentation, design sheets, design data, drawings, design specifications, techniques, consulting or development methodologies, models, source code, object code, documentation, diagrams, flow charts, research, development, processes, training materials, templates, procedures, “know-how,” tools, client identities, client accounts, web design needs, client advertising needs and history, client reports, client proposals, product information and reports, accounts, billing methods, pricing, data, sources of supply, business methods, production or merchandising systems or plans, marketing, sales and business strategies and plans, finances, operations, and information regarding employees. Notwithstanding the foregoing, information publicly known that is generally employed by the trade at or after the time you first learn of such information (other than as a result of your breach of this Agreement) shall not constitute Proprietary Information.

You agree to hold Confidential Information in the strictest of confidence and further agree not to release, divulge, misappropriate, publish or communicate Confidential Information to any person or entity outside of Appian without the express written consent of Appian's CEO or his express designee. You understand that the obligations contained in this Section are effective upon your first day of employment, or earlier (if you receive Confidential Information sooner), and shall survive the expiration of this Agreement, regardless of the reason your employment with Appian is terminated. Furthermore, nothing contained in this Section of the Agreement is designed to waive its statutory rights to seek relief pursuant to the Virginia Trade Secrets Act, Virginia Code Section 59.1-336 et seq.

6. Inventions. For the purposes of this Agreement, "Inventions" mean any concepts, ideas, processes, designs, specifications, improvements, discoveries or other developments, whether or not reduced to practice or patentable, that I conceive or create, in whole or in part, alone or jointly with others, during my employment by the Company, whether during normal work hours or otherwise, if such Inventions meet one of the following conditions (i) the Inventions directly relate to the Company's business (including without limitation the Company's present or contemplated products and research) or to tasks assigned to me by or on behalf of the Company or (ii) the Inventions are written or developed using any of the Company's equipment, facilities, materials, trade secrets, labor, money, time or other resources. "Inventions" also shall be deemed to include any concepts, ideas, processes, designs, specifications, improvements, discoveries or other developments, whether or not reduced to practice or patentable, that I conceive or create within ninety (90) days after my employment with the Company ends that directly relate to the Company's business as conducted prior to the date my employment ended or to any tasks assigned to me by or on behalf of the Company at any time during the last two (2) years of my employment by the Company. "Inventions" do not include any concepts, ideas, processes, designs, discoveries or other developments reduced to practice prior to joining Appian.

   6.1 Assignment of Inventions. I agree that all Inventions are the sole and exclusive property of the Company and hereby assign to the Company all right, title and interest in all Inventions.

7. Termination and Resignation. Your employment is terminable at-will. That means that you or Appian may terminate your employment relationship at any time, for any reason or no reason at all. In the event that Appian terminates your employment, you will be entitled to earned and unpaid salary, less required and authorized withholdings and deductions. In the event that you terminate your employment, you will be entitled to earned and unpaid salary, less required and authorized withholdings and deductions, through your last day of employment. Regardless of the basis of your termination of employment, you agree to provide all assistance requested by Appian in transitioning your duties, responsibilities, clients and other Appian relationships to other Appian personnel, both during your employment and after your termination or resignation. Furthermore, you agree to cooperate with Appian from time to time as necessary concerning matters that may have arisen during the course of your employment with Appian. Such cooperation is an express condition of this Agreement.

8. Return of Company Materials. Upon the termination of your employment with Appian, regardless of the basis of the termination, you shall promptly deliver to Appian any of the following items or materials: any laptop or personal computer issued to you, or paid for, by Appian; any material, in any form whatsoever, that constitutes Appian's Confidential Information, Trade Secret and/or Proprietary Information; the Employee Handbook; the Consulting Best Practices Book ("CBP"); and any other material that is the property of Appian Corporation or Appian Corporation's customers, including, but not limited to, books, key cards, passes, and other material. You agree that, to the extent permissible by law, Appian may withhold payment of any compensation or reimbursements until you return all such Appian materials.

9. Authority Limited. It is expressly agreed that you shall have no right or authority at any time to make any contract or binding promise of any nature on behalf of Appian, without Appian's express written consent except within established duties of your employment.

10. Assignment and Survival. The rights and obligations of Appian under this Agreement shall inure to the benefit of, and shall be binding upon, the successors and assigns of Appian. Your rights and obligations are personal and may not be assigned or delegated without the Company's proper written consent. However, if you become deceased prior to the expiration of this Agreement, any sums that may be due to you as of the date of your death shall be paid to your executor, administrator, heirs, personal representative, successors or assigns. Furthermore, it is expressly understood that the obligations under Sections 3, 4, or 5 of this Agreement shall survive any termination of this Agreement.

11. Remedies. You acknowledge that the damages Appian will suffer as a result of your breach of any provision of Sections 3, 4, or 5 of this Agreement may be impossible to reasonably calculate and that violation of this Agreement

will irreparably harm Appian. Accordingly, you agree that Appian will be entitled, in addition to all other rights and remedies that may be available, to obtain injunctive relief enjoining and restraining you from committing a breach of this Agreement. You also agree that in the event Appian is successful in whole or in part in any legal action against you under this Agreement, Appian will be entitled to recover all costs, including reasonable attorney fees from you.

12. Severability. If any provision of this Agreement is held invalid or unenforceable for any reason, the invalidity shall not nullify the validity of the remaining provisions of this Agreement. If any provision of this Agreement is determined by a court to be overly broad in duration, geographical coverage or scope, or unenforceable for any other reason, such provision will be narrowed so that it will be enforced as much as permitted by law.

13. Choice of Law. The laws of the Commonwealth of Virginia shall govern this Agreement. You and Appian consent to the jurisdiction and venue of any state or federal court in the Commonwealth of Virginia.

14. Waiver. Any party's waiver of any other party's breach of any provision of this Agreement shall not waive any other right or any future breaches of the same or any other provision. Appian's CEO may, in his or her sole discretion, waive in writing any provision of this Agreement.

15. Notices. Any notices, requests, demands or other communications provided for in this Agreement shall be in writing and shall be given either manually or by certified mail. Notice to Appian shall be addressed to Human Resources. Notice to you shall be addressed to the last address you have filed with Human Resources. You may change your address by providing written notice in accordance with this Section. If you fail to keep Appian informed of your most recent address, you agree to waive any claim against Appian related to any damage you may suffer as a result of Appian failing to provide you with a notice under this or any other Agreement you may have with Appian.

16. Entire Agreement. This Agreement is the entire agreement between you and Appian regarding these matters and supersedes any verbal and written agreements on such matters. This Agreement may be modified only by written agreement signed by you and Appian's CEO. All Section headings are for convenience only and do not modify or restrict any of this Agreement's terms.

17. Counterparts. For convenience of the parties, this Agreement may be executed in one or more counterparts, each of which shall be deemed an original for all purposes.

The parties state that they have read, understood and agree to be bound by this Agreement and that they have had the opportunity to seek the advice of legal counsel before signing it and have either sought such counsel or have voluntarily decided not to do so:

APPIAN CORPORATION	EMPLOYEE
By: DocuSigned by: Debbie Moser 621AB1FEF50F424... (Signature)	By: DocuSigned by: David Mitchell 89CC35F92EB9407...
Title: Vice President, Human Resources	Printed Name: David Mitchell
Date: 16 February 2018	Date: 16 February 2018

Employment Agreement Exhibit A

Named Companies:

1. BizAgi
2. IBM
3. K2
4. OpenText
5. Oracle Corporation
6. Pegasystems, Inc.
7. Salesforce.com
8. DST Systems, Inc.
9. ServiceNow
10. Bonitasoft
11. Outsystems
12. Mendix
13. MicroPact
14. AppWay
15. Veeva
16. Camunda

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew Calkins, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended March 31, 2020 of Appian Corporation (the “registrant”);

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

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

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

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

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

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

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

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

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

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

Date: May 7, 2020

/s/ Matthew Calkins
Matthew Calkins
Chief Executive Officer
(principal executive officer)

Exhibit 31.2

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Mark Lynch, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the period ended March 31, 2020 of Appian Corporation (the "registrant");

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

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

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

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

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

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

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

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

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

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

Date: May 7, 2020

/s/ Mark Lynch
Mark Lynch
Chief Financial Officer
(principal financial officer)

Exhibit 32.1

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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Matthew Calkins, Chief Executive Officer of Appian Corporation (the "Company"), and Mark Lynch, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

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

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

IN WITNESS WHEREOF, the undersigned have set their hands hereto as of the 7th day of May, 2020.

/s/ Matthew Calkins	/s/ Mark Lynch
Matthew Calkins	Mark Lynch
Chief Executive Officer (principal executive officer)	Chief Financial Officer (principal financial officer)

- This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.