

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended **October 31, 2019**

OR

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

For the transition period from _____ to _____

Commission file number **0-22823**

QAD Inc.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

77-0105228

(I.R.S. Employer Identification No.)

100 Innovation Place, Santa Barbara, California 93108

(Address of principal executive offices)

(805) 566-6000

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, \$0.001 par value	QADA	NASDAQ Global Select Market
Class B Common Stock, \$0.001 par value	QADB	NASDAQ Global Select Market

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 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 definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check One):

Large accelerated filer ☐

Non-accelerated filer ☐

Accelerated filer

Smaller reporting company ☐

Emerging growth company ☐

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

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

As of November 30, 2019, there were 17,029,822 shares of the Registrant's Class A common stock outstanding and 3,321,002 shares of the Registrant's Class B common stock outstanding.

**QAD INC.
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PART I

ITEM 1 – FINANCIAL STATEMENTS

QAD INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)
(unaudited)

	October 31, 2019	January 31, 2019
Assets		
Current assets:		
Cash and equivalents	\$ 133,815	\$ 139,413
Short-term investments	—	1,200
Accounts receivable, net of allowances of \$3,169 and \$2,901 at October 31, 2019 and January 31, 2019, respectively	39,748	81,577
Prepaid expenses and other current assets, net	22,999	22,150
Total current assets	196,562	244,340
Property and equipment, net of accumulated depreciation and amortization of \$38,400 and \$39,173 at October 31, 2019 and January 31, 2019, respectively	28,628	29,621
Lease right-of-use assets	17,067	—
Capitalized software costs, net	1,909	1,598
Goodwill	12,391	12,423
Deferred tax assets, net	5,864	16,172
Other assets, net	12,646	13,020
Total assets	<u>\$ 275,067</u>	<u>\$ 317,174</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Current portion of long-term debt	\$ 498	\$ 487
Lease liabilities	4,668	—
Accounts payable	5,679	9,902
Deferred revenue	81,893	115,253
Other current liabilities	33,802	40,348
Total current liabilities	126,540	165,990
Long-term debt	12,466	12,836
Long-term lease liabilities	13,128	—
Other liabilities	5,859	5,101
Total liabilities	157,993	183,927
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, \$0.001 par value. Authorized 5,000,000 shares; none issued or outstanding	—	—
Common stock:		
Class A, \$0.001 par value. Authorized 71,000,000 shares; issued 17,029,822 and 16,605,215 shares at October 31, 2019 and January 31, 2019, respectively	17	16
Class B, \$0.001 par value. Authorized 4,000,000 shares; issued 3,537,380 shares at both October 31, 2019 and January 31, 2019	4	4
Additional paid-in capital	197,421	196,723
Treasury stock, at cost (216,378 Class B shares at October 31, 2019 and 241,667 Class A shares and 273,474 Class B shares at January 31, 2019)	(3,225)	(7,350)
Accumulated deficit	(69,204)	(48,485)
Accumulated other comprehensive loss	(7,939)	(7,661)
Total stockholders' equity	117,074	133,247
Total liabilities and stockholders' equity	<u>\$ 275,067</u>	<u>\$ 317,174</u>

See Accompanying Notes to Condensed Consolidated Financial Statements.

QAD INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME
(in thousands, except per share data)
(unaudited)

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
Revenue:				
Subscription	\$ 27,328	\$ 23,863	\$ 78,522	\$ 67,813
License	3,295	4,631	11,277	16,458
Maintenance and other	29,699	30,401	89,184	92,458
Professional services	17,485	20,682	53,237	73,581
Total revenue	77,807	79,577	232,220	250,310
Costs of revenue:				
Subscription	9,540	8,686	28,860	25,248
License	510	534	1,655	1,772
Maintenance and other	7,291	7,716	22,353	23,355
Professional services	16,376	20,425	53,815	68,489
Total cost of revenue	33,717	37,361	106,683	118,864
Gross profit	44,090	42,216	125,537	131,446
Operating expenses:				
Sales and marketing	19,771	18,447	60,853	57,895
Research and development	13,622	13,155	41,479	40,674
General and administrative	9,234	8,095	29,044	26,823
Amortization of intangibles from acquisitions	67	45	200	45
Total operating expenses	42,694	39,742	131,576	125,437
Operating income (loss)	1,396	2,474	(6,039)	6,009
Other (income) expense:				
Interest income	(695)	(646)	(2,208)	(1,913)
Interest expense	176	177	477	488
Other (income) expense, net	386	(636)	60	(1,309)
Total other (income), net	(133)	(1,105)	(1,671)	(2,734)
Income (loss) before income taxes	1,529	3,579	(4,368)	8,743
Income tax expense	1,404	597	11,991	3,251
Net income (loss)	\$ 125	\$ 2,982	\$ (16,359)	\$ 5,492
Basic net income (loss) per share				
Class A	\$ 0.01	\$ 0.16	\$ (0.85)	\$ 0.29
Class B	\$ 0.01	\$ 0.13	\$ (0.71)	\$ 0.24
Diluted net income (loss) per share				
Class A	\$ 0.01	\$ 0.14	\$ (0.85)	\$ 0.26
Class B	\$ 0.01	\$ 0.12	\$ (0.71)	\$ 0.23
Net income (loss)	\$ 125	\$ 2,982	\$ (16,359)	\$ 5,492
Other comprehensive loss, net of tax:				
Foreign currency translation adjustment	(313)	(1,174)	(278)	(2,010)
Total comprehensive (loss) income	\$ (188)	\$ 1,808	\$ (16,637)	\$ 3,482

See Accompanying Notes to Condensed Consolidated Financial Statements.

QAD INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except per share data)
(unaudited)

Nine Months Ended October 31, 2019

	Number of Shares			Amount		Additional Paid-in Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Class A	Class B	Treasury	Class A	Class B					
Balance, January 31, 2019	16,605	3,537	(515)	\$ 16	\$ 4	\$ 196,723	\$ (7,350)	\$ (48,485)	\$ (7,661)	\$ 133,247
Net loss	—	—	—	—	—	—	—	(16,359)	—	(16,359)
Foreign currency translation adjustments	—	—	—	—	—	—	—	—	(278)	(278)
Stock award exercises	421	—	126	1	—	(2,164)	1,943	—	—	(220)
Stock compensation expense	—	—	—	—	—	8,396	—	—	—	8,396
Dividends declared (\$0.216 and \$0.18 per Class A and Class B share, respectively)	—	—	—	—	—	—	—	(4,187)	—	(4,187)
Restricted stock	4	—	173	—	—	(5,534)	2,182	—	—	(3,352)
Adoption of ASU2016-02, <i>Leases (Topic 842)</i>	—	—	—	—	—	—	—	(173)	—	(173)
Balance, October 31, 2019	<u>17,030</u>	<u>3,537</u>	<u>(216)</u>	<u>\$ 17</u>	<u>\$ 4</u>	<u>\$ 197,421</u>	<u>\$ (3,225)</u>	<u>\$ (69,204)</u>	<u>\$ (7,939)</u>	<u>\$ 117,074</u>

Nine Months Ended October 31, 2018

	Number of Shares			Amount		Additional Paid-in Capital	Treasury Stock	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Class A	Class B	Treasury	Class A	Class B					
Balance, January 31, 2018	16,605	3,537	(892)	\$ 16	\$ 4	\$ 200,456	\$ (12,461)	\$ (75,559)	\$ (6,828)	\$ 105,628
Cumulative effect of the adoption of Topic 606 and ASU2016-16	—	—	—	—	—	—	—	22,125	—	22,125
Adjusted balance at February 1, 2018	16,605	3,537	(892)	\$ 16	\$ 4	\$ 200,456	\$ (12,461)	\$ (53,434)	\$ (6,828)	\$ 127,753
Net income	—	—	—	—	—	—	—	5,492	—	5,492
Foreign currency translation adjustments	—	—	—	—	—	—	—	—	(2,010)	(2,010)
Stock award exercises	—	—	194	—	—	(7,819)	3,401	—	—	(4,418)
Stock compensation expense	—	—	—	—	—	7,618	—	—	—	7,618
Dividends declared (\$0.216 and \$0.18 per Class A and Class B share, respectively)	—	—	—	—	—	—	—	(4,105)	—	(4,105)
Restricted stock	—	—	181	—	—	(5,963)	1,676	—	—	(4,287)
Balance, October 31, 2018	<u>16,605</u>	<u>3,537</u>	<u>(517)</u>	<u>\$ 16</u>	<u>\$ 4</u>	<u>\$ 194,292</u>	<u>\$ (7,384)</u>	<u>\$ (52,047)</u>	<u>\$ (8,838)</u>	<u>\$ 126,043</u>

See Accompanying Notes to Condensed Consolidated Financial Statements.

QAD INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Nine Months Ended October 31,	
	2019	2018
Cash flows from operating activities:		
Net (loss) income	\$ (16,359)	\$ 5,492
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Depreciation and amortization	4,745	4,100
Amortization of costs capitalized to obtain revenue contracts	3,301	3,107
Non-cash lease expense	4,460	-
Net change in valuation allowance for deferred tax assets	14,376	3,760
Other deferred income taxes	(2)	(824)
Loss on disposal of equipment	51	26
Provision for doubtful accounts and sales adjustments	656	926
Stock compensation expense	8,396	7,618
Change in fair value of derivative instrument	352	(198)
Other, net	71	-
Changes in assets and liabilities:		
Accounts receivable	40,342	33,923
Costs capitalized to obtain revenue contracts	(3,489)	(2,510)
Lease liabilities	(4,577)	-
Prepaid expenses and other assets	(3,767)	688
Accounts payable	(4,048)	(3,503)
Deferred revenue	(31,422)	(30,977)
Other liabilities	(5,385)	(6,511)
Net cash provided by operating activities	7,701	15,117
Cash flows from investing activities:		
Purchase of property and equipment	(4,251)	(3,225)
Acquisition of business, net of cash acquired	-	(2,655)
Purchase of short-term investments	(1,200)	-
Proceeds from sale of short-term investments	2,400	-
Capitalized software costs	(963)	(778)
Net cash used in investing activities	(4,014)	(6,658)
Cash flows from financing activities:		
Repayments of debt	(389)	(350)
Tax payments related to stock awards	(3,572)	(8,705)
Cash dividends paid	(4,187)	(4,105)
Net cash used in financing activities	(8,148)	(13,160)
Effect of exchange rates on cash and equivalents	(1,137)	(4,242)
Net decrease in cash and equivalents	(5,598)	(8,943)
Cash and equivalents at beginning of period	139,413	147,023
Cash and equivalents at end of period	<u>\$ 133,815</u>	<u>\$ 138,080</u>
Supplemental disclosure of cash flow information:		
Cash paid during the period for:		
Interest	\$ 464	\$ 458
Income taxes, net of refunds	\$ 2,974	\$ 2,558

See Accompanying Notes to Condensed Consolidated Financial Statements.

QAD INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. BASIS OF PRESENTATION AND RECENT ACCOUNTING PRONOUNCEMENTS

Basis of Presentation

In the opinion of management, the accompanying unaudited Condensed Consolidated Financial Statements fairly present the financial information contained therein. These statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. The financial statements and footnotes are unaudited. In management's opinion, all necessary adjustments, consisting of normal, recurring and non-recurring adjustments, have been included in the accompanying Condensed Consolidated Financial Statements to present fairly the financial position and operating results of QAD Inc. ("QAD" or the "Company"). The Condensed Consolidated Financial Statements do not include all disclosures required by GAAP accounting principles for annual financial statements and should be read in conjunction with the audited financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended January 31, 2019. The Condensed Consolidated Financial Statements include the results of the Company and its wholly owned subsidiaries. Because of seasonal and other factors, results of operations for the nine months ended October 31, 2019 are not necessarily indicative of the results to be expected for the year ending January 31, 2020.

The Company's accounting policies are set forth in detail in Note 1 of the Notes to Consolidated Financial Statements in the Company's Annual Report on Form 10-K for the year ended January 31, 2019 filed with the Securities and Exchange Commission. Such Annual Report also contains a discussion of the Company's critical accounting policies and estimates. The Company believes that these accounting policies and estimates affect its more significant estimates and judgments used in the preparation of the Company's consolidated financial statements.

Assets Held for Sale

During the second quarter of fiscal 2020, the Company vacated its building located in Dublin, Ireland, and moved its operations into leased office space. The Company entered into an agreement to sell the building and expects to complete the sale within the next 12 months. The net book value of the building of \$1.7 million was classified as assets held for sale, and is included in "Prepaid expenses and other current assets, net" in the accompanying Condensed Consolidated Balance Sheet as of October 31, 2019. The net book value approximates fair market value.

Recent Accounting Pronouncements

Except as discussed below, there have been no recent changes in accounting pronouncements issued by the Financial Accounting Standards Board ("FASB") or adopted by the Company during the nine months ended October 31, 2019, that are of significance, or potential significance, to the Company.

Recent Accounting Pronouncements Adopted

In February 2016, the FASB issued Accounting Standards Update ("ASU") 2016-02, *Leases (Topic 842)*. This pronouncement requires lessees to recognize a liability for lease obligations, which represents the discounted obligation to make future lease payments, and a corresponding right-of-use ("ROU") asset on the balance sheet. The Company adopted ASU 2016-02, along with related clarifications and improvements, as of February 1, 2019, using the modified retrospective approach, which allows the Company to apply Accounting Standards Codification ("ASC") 840, Leases, in the comparative periods presented in the year of adoption. Accordingly, the comparative periods and disclosures have not been restated. The cumulative effect of adoption was recorded as an adjustment to the opening balance sheet in the period of adoption.

The Company elected the package of practical expedients not to reassess prior conclusions related to contracts containing leases, lease classification and initial direct costs and the lessee practical expedient to combine lease and non-lease components for certain assets. Additionally, the Company adopted the policy election to not recognize right-of-use assets and lease liabilities for short-term leases for all asset classes.

Adoption of the new standard resulted in the recording of a non-cash transitional adjustment to ROU lease assets and lease liabilities of approximately \$13.1 million and \$13.9 million, respectively, as of February 1, 2019. The difference between the ROU lease assets and lease liabilities represented existing deferred rent expense and prepaid rent that were derecognized and recorded to retained earnings in the Condensed Consolidated Balance Sheets. The adoption of ASU 2016-02 did not materially impact results of operations or cash flows.

Recent Accounting Pronouncements Not Yet Adopted

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 accounting for implementation costs incurred in a hosting arrangement that is a service contract with the accounting for implementation costs incurred to develop or obtain internal-use software under ASC 350-40, in order to determine which costs to capitalize and recognize as an asset and which costs to expense. ASU 2018-15 is effective for annual reporting periods, and interim periods within those years, beginning after December 15, 2019, and can be applied either prospectively to implementation costs incurred after the date of adoption or retrospectively to all arrangements. The Company is currently evaluating the impact of the adoption of this standard on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, which simplifies the subsequent measurement of goodwill to eliminate Step 2 from the goodwill impairment test. In addition, it eliminates the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if that fails that qualitative test, to perform Step 2 of the goodwill impairment test. Therefore, the same impairment assessment applies to all reporting units. ASU 2017-04 will be effective for the Company's fiscal year beginning February 1, 2020. Early adoption is permitted. The new guidance is required to be applied on a prospective basis. The Company does not believe adoption of ASU 2017-04 will have a material impact on its consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which requires the measurement and recognition of expected credit losses for financial assets held at amortized cost, which includes the Company's accounts receivables, certain financial instruments and contract assets. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss methodology, which will generally result in more timely recognition of credit losses. ASU 2016-13 is effective for annual reporting periods, and interim periods within those years, beginning after December 15, 2019, and requires a cumulative effect adjustment to the balance sheet as of the beginning of the first reporting period in which the guidance is effective. The Company is evaluating the impact of the adoption of ASU 2016-13 on its consolidated financial statements in order to adopt the new standard in the first quarter of fiscal 2021.

2. REVENUE

QAD offers its software using the same underlying technology via two models: a traditional on-premises licensing model and a cloud-based subscription model. The on-premises model involves the sale or license of software on a perpetual basis to customers who take possession of the software and install and maintain the software on their own hardware. Under the cloud-based subscription delivery model, QAD provides access to its software on a hosted basis as a service and customers generally do not have the contractual right to take possession of the software.

The Company generates revenue through sales of licenses and maintenance provided to its on-premises customers and through subscriptions of its cloud-based software. QAD offers professional services to both its on-premises and cloud customers to assist them with the design, testing and implementation of its software.

The Company determines revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price;
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, the Company satisfies a performance obligation.

Revenue is presented net of sales, value-added and other taxes collected from customers and remitted to government authorities.

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account under ASU 2014-09 *Revenue from Contracts with Customers (Topic 606)*. The transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied by transferring the promised good or service to the customer. The Company identifies and tracks the performance obligations at contract inception so that the Company can monitor and account for the performance obligations over the life of the contract.

The Company's contracts which contain multiple performance obligations generally consist of the initial purchase of subscription or licenses and a professional services engagement. License purchases generally have multiple performance obligations as customers purchase maintenance in addition to the licenses. The Company's single performance obligation arrangements are typically maintenance renewals, subscription renewals and services engagements.

For contracts with multiple performance obligations where the contracted price differs from the stand-alone selling price ("SSP") for any distinct good or service, the Company may be required to allocate the contract's transaction price to each performance obligation using its best estimate for the SSP. SSP is assessed annually using a historical analysis of contracts with customers executed in the most recently completed fiscal year to determine the range of selling prices applicable to a distinct good or service.

Judgment is required to determine the SSP for each distinct performance obligation. In instances where SSP is not directly observable because the Company does not sell the license, product or service separately, the Company determines the SSP using information that may include market conditions and other observable inputs. In making these judgments, the Company analyzes various factors, including its pricing methodology and consistency, size of the arrangement, length of term, customer demographics and overall market and economic conditions. Based on these results, the estimated SSP is set for each distinct product or service delivered to customers. The Company rarely sells licenses on a stand-alone basis, as the majority of its license sales to customers include first year maintenance with the license purchase. The Company frequently sells subscription, maintenance and services on a stand-alone basis.

Subscription

Subscription revenue is recognized ratably over the initial subscription period committed to by the customer commencing when the cloud environment is made available to the customer. The initial subscription period is typically 12 to 60 months. The Company generally invoices its customers in advance in quarterly or annual installments and typical payment terms provide that customers make payment within 30 days of invoice.

Software Licenses

Transfer of control for software is considered to have occurred upon electronic delivery of the license key that provides immediate availability of the product to the customer. The Company's typical payment terms tend to vary by region but its standard payment terms are within 30-90 days of invoice.

Maintenance

Revenue from support services and product updates, referred to as maintenance revenue, is recognized ratably over the term of the maintenance period, which in most instances is one year. Software license updates provide customers with rights to unspecified software product updates, maintenance releases and patches released during the term of the support period on a when-and-if available basis. Product support includes Internet access to technical content, as well as Internet and telephone access to technical support personnel. The Company's customers purchase both product support and license updates via the Company's maintenance offering when they acquire new software licenses. In addition, a majority of customers renew their maintenance contracts annually and typical payment terms provide that customers make payment within 30 days of invoice.

Professional Services

Revenue from professional services is typically comprised of implementation, development, training or other consulting services. Consulting services are generally sold on a time-and-materials or fixed fee basis and can include services ranging from software installation to data conversion and building non-complex interfaces to allow the software to operate in integrated environments. The Company recognizes revenue for time-and-materials arrangements as the services are performed. In fixed fee arrangements, revenue is recognized as services are performed as measured by costs incurred to date, compared to total estimated costs to complete the services project. Management applies judgment when estimating project status and the costs necessary to complete the services projects. A number of internal and external factors can affect these estimates, including labor rates, utilization and efficiency variances and specification and testing requirement changes. Services are generally invoiced upon milestones in the contract or upon consumption of the hourly resources and payments are typically due 30 days after invoice.

Indirect Sales Channels

The Company executes arrangements through indirect sales channels via sales agents and distributors who are authorized to market its software products to end users. In arrangements with sales agents, QAD contracts directly with the customer and sales agents are compensated on a commission basis. Distributor arrangements are those in which the resellers are authorized to market and distribute the Company's software products to end users in specified territories and the distributor bears the risk of collection from the end user customer. The Company recognizes revenue from transactions with distributors when the distributor submits a signed agreement and transfer of control has occurred to the distributor in accordance with the five revenue recognition steps noted above. Revenue from distributor transactions is recorded on a net basis (the amount actually received by the Company from the distributor). QAD does not offer rights of return, product rotation or price protection to any of its distributors.

Disaggregated Revenue

The Company disaggregates revenue from contracts with customers by geography and by the customers' industry within manufacturing, as it believes it best depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

The Company's revenue by geography is as follows:

	Three Months Ended		Nine Months Ended	
	October 31,		October 31,	
	2019	2018	2019	2018
	(in thousands)		(in thousands)	
North America	\$ 38,302	\$ 39,870	\$ 112,798	\$ 119,183
EMEA	22,233	22,549	66,860	74,542
Asia Pacific	11,776	12,348	35,413	37,773
Latin America	5,496	4,810	17,149	18,812
Total revenue	<u>\$ 77,807</u>	<u>\$ 79,577</u>	<u>\$ 232,220</u>	<u>\$ 250,310</u>

The Company's revenue by industry is as follows:

	Three Months Ended		Nine Months Ended	
	October 31,		October 31,	
	2019	2018	2019	2018
	(in thousands)		(in thousands)	
Automotive	\$ 28,071	\$ 31,035	\$ 84,105	\$ 102,760
Consumer products and food and beverage	11,244	12,732	35,351	40,049
High technology and industrial products	26,612	23,873	78,549	74,231
Life sciences and other	11,880	11,937	34,215	33,270
Total revenue	<u>\$ 77,807</u>	<u>\$ 79,577</u>	<u>\$ 232,220</u>	<u>\$ 250,310</u>

Management Judgments

Due to the complexity of certain contracts, the actual revenue recognition treatment required under Topic 606 for the Company's arrangements may be dependent on contract-specific terms and may vary in some instances.

Revenue is recognized over time for the Company's subscription, maintenance and fixed fee professional services that are separate performance obligations. For the Company's professional services, revenue is recognized over time, generally using costs incurred or hours expended to measure progress. Judgment is required in estimating project status and the costs necessary to complete projects. A number of internal and external factors can affect these estimates, including labor rates, utilization, specification variances and testing requirement changes.

If a group of agreements are entered at or near the same time and so closely related that they are, in effect, part of a single arrangement, such agreements are deemed to be combined as one arrangement for revenue recognition purposes. The Company exercises judgment to evaluate the relevant facts and circumstances in determining whether agreements should be accounted for separately or as a single arrangement. The Company's judgments about whether a group of contracts comprise a single arrangement can affect the allocation of consideration to the distinct performance obligations, which could have an effect on results of operations for the periods involved.

Contract Balances

The timing of revenue recognition may differ from the timing of invoicing to customers and these timing differences result in receivables, contract assets, or contract liabilities (deferred revenue) on the Company's Condensed Consolidated Balance Sheets. QAD records a contract asset when the Company has transferred goods or services but does not yet have the right to consideration. QAD records deferred revenue when the Company has received or has the right to receive consideration but has not yet transferred goods or services to the customer.

The contract assets indicated below are presented as other current and non-current assets in the Condensed Consolidated Balance Sheets. These assets primarily relate to professional services and subscription and consist of the Company's rights to consideration for goods or services transferred but not billed as of October 31, 2019. The contract assets are transferred to receivables when the rights to consideration become unconditional, usually upon completion of a milestone.

The Company's contract balances are as follows:

	October 31, 2019	January 31, 2019
	(in thousands)	
Contract assets, short-term (in Prepaid expenses and other current assets, net)	\$ 3,215	\$ 2,058
Contract assets, long-term (in Other assets, net)	589	-
Total contract assets	\$ 3,804	\$ 2,058
Deferred revenue, short-term	\$ 81,893	\$ 115,253
Deferred revenue, long-term (in Other liabilities)	1,929	1,465
Total deferred revenue	\$ 83,822	\$ 116,718

During the nine months ended October 31, 2019, the Company recognized \$105.0 million of revenue that was included in the deferred revenue balance at the beginning of the period. All other activity in deferred revenue is due to the timing of invoicing in relation to the timing of revenue recognition.

Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, which includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods. Contracted but unsatisfied performance obligations were approximately \$232.3 million as of October 31, 2019, of which the Company expects to recognize approximately \$144.2 million as revenue over the next twelve months and the remainder thereafter. In instances where the timing of revenue recognition differs from the timing of invoicing, QAD has determined that its contracts generally do not include a significant financing component. The primary purpose of invoicing terms is to provide customers with simplified and predictable ways of purchasing the Company's products and services, and not to facilitate financing arrangements.

Deferred Revenue

The Company typically invoices its customers for subscription and maintenance in advance on a quarterly or annual basis, with payment due at the start of the subscription or maintenance term. Unpaid invoice amounts for non-cancelable services starting in future periods are included in accounts receivable and deferred revenue. The portion of deferred revenue that QAD anticipates will be recognized after the succeeding twelve-month period is recorded as non-current deferred revenue, and the remaining portion is recorded as current deferred revenue.

Deferred revenues consisted of the following:

	October 31, 2019	January 31, 2019
	(in thousands)	
Deferred maintenance	\$ 47,125	\$ 77,037
Deferred subscription	32,798	34,020
Deferred professional services	1,730	2,146
Deferred license	85	1,713
Deferred other revenue	155	337
Deferred revenues, current	81,893	115,253
Deferred revenues, non-current (in Other liabilities)	1,929	1,465
Total deferred revenues	\$ 83,822	\$ 116,718

Practical Expedients and Exemptions

There are several practical expedients and exemptions allowed under Topic 606 that impact timing of revenue recognition and the Company's disclosures. Below is a list of the practical expedients applied by the Company:

- The Company does not evaluate a contract for a significant financing component if payment is expected within one year or less from the transfer of the promised items to the customer.

- The Company generally expenses sales commissions and sales agent fees when incurred when the amortization period would have been one year or less. These costs are recorded within sales and marketing expense in the Condensed Consolidated Statement of Operations and Comprehensive (Loss) Income.
- The Company calculates contract acquisition costs based on a portfolio of contracts with similar characteristics instead of a contract by contract analysis.
- The Company does not disclose the value of unsatisfied performance obligations for contracts for which the Company recognizes revenue at the amount to which it has the right to invoice for services performed (applies to time-and-material engagements).

Costs to Obtain and Fulfill a Contract

The Company's incremental direct costs of obtaining a contract consist of sales commissions and sales agent fees which are deferred and amortized ratably over the term of economic benefit which the Company has determined to be five years. These deferred costs are classified as current or non-current based on the timing of when the Company expects to recognize the expense. The current and non-current portions of deferred commissions are included in other current assets and other long-term assets, respectively, in the Company's Condensed Consolidated Balance Sheets. At October 31, 2019 and January 31, 2019, the Company had \$11.2 million and \$11.0 million, respectively, of deferred commissions and sales agent fees. For the three and nine months ended October 31, 2019, \$1.0 million and \$2.9 million, respectively, of amortization expense related to deferred commissions and sales agent fees were recorded in sales and marketing expense in the Company's Condensed Consolidated Statement of Operations and Comprehensive (Loss) Income. For the three and nine months ended October 31, 2018, \$0.9 million and \$2.7 million, respectively, of amortization expense related to deferred commissions and sales agent fees were recorded in sales and marketing expense in the Company's Condensed Consolidated Statement of Operations and Comprehensive (Loss) Income.

Costs to fulfill a contract, which are incurred upon initiation of certain services contracts and are related to initial customer setup, are included in other current assets and long-term assets in the Company's Condensed Consolidated Balance Sheets. At October 31, 2019 and January 31, 2019 the Company had deferred setup costs of \$1.4 million and \$1.5 million, respectively. These costs are amortized over the term of economic benefit which the Company has determined to be five years. During the three and nine months ended October 31, 2019, \$0.1 million and \$0.4 million, respectively, of amortization expense related to deferred setup costs were recorded in cost of subscription in the Company's Condensed Consolidated Statement of Operations and Comprehensive (Loss) Income. During the three and nine months ended October 31, 2018, \$0.1 million and \$0.4 million, respectively, of amortization expense related to deferred setup costs were recorded in cost of subscription in the Company's Condensed Consolidated Statement of Operations and Comprehensive (Loss) Income.

Recoverability of these costs is subject to various business risks. Quarterly, the Company compares the carrying value of these assets with the undiscounted future cash flows expected to be generated by them to determine if there is impairment. If impaired, these assets are reduced to an estimated fair value on a discounted cash flow basis. No impairment losses were recognized during the nine months ended October 31, 2019 or October 31, 2018.

3. COMPUTATION OF NET INCOME (LOSS) PER SHARE

The following table sets forth the computation of basic and diluted net income (loss) per share:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands, except per share data)		(in thousands, except per share data)	
Net income (loss)	\$ 125	\$ 2,982	\$ (16,359)	\$ 5,492
Less: Dividends declared	(1,426)	(1,374)	(4,187)	(4,105)
Undistributed net (loss) income	<u>\$ (1,301)</u>	<u>\$ 1,608</u>	<u>\$ (20,546)</u>	<u>\$ 1,387</u>
Net income (loss) per share – Class A Common Stock				
Dividends declared	\$ 1,226	\$ 1,178	\$ 3,596	\$ 3,518
Allocation of undistributed net (loss) income	(1,119)	1,379	(17,641)	1,189
Net income (loss) attributable to Class A common stock	<u>\$ 107</u>	<u>\$ 2,557</u>	<u>\$ (14,045)</u>	<u>\$ 4,707</u>
Weighted average shares of Class A common stock outstanding— <i>basic</i>	16,918	16,358	16,586	16,235
Weighted average potential shares of Class A common stock	877	1,590	—	1,676
Weighted average shares of Class A common stock and potential common shares outstanding— <i>diluted</i>	<u>17,795</u>	<u>17,948</u>	<u>16,586</u>	<u>17,911</u>
Basic net income (loss) per Class A common share	<u>\$ 0.01</u>	<u>\$ 0.16</u>	<u>\$ (0.85)</u>	<u>\$ 0.29</u>
Diluted net income (loss) per Class A common share	<u>\$ 0.01</u>	<u>\$ 0.14</u>	<u>\$ (0.85)</u>	<u>\$ 0.26</u>
Net income (loss) per share – Class B Common Stock				
Dividends declared	\$ 200	\$ 196	\$ 591	\$ 587
Allocation of undistributed net (loss) income	(182)	229	(2,905)	198
Net income (loss) attributable to Class B common stock	<u>\$ 18</u>	<u>\$ 425</u>	<u>\$ (2,314)</u>	<u>\$ 785</u>
Weighted average shares of Class B common stock outstanding— <i>basic</i>	3,308	3,264	3,279	3,253
Weighted average potential shares of Class B common stock	90	169	—	176
Weighted average shares of Class B common stock and potential common shares outstanding— <i>diluted</i>	<u>3,398</u>	<u>3,433</u>	<u>3,279</u>	<u>3,429</u>
Basic net income (loss) per Class B common share	<u>\$ 0.01</u>	<u>\$ 0.13</u>	<u>\$ (0.71)</u>	<u>\$ 0.24</u>
Diluted net income (loss) per Class B common share	<u>\$ 0.01</u>	<u>\$ 0.12</u>	<u>\$ (0.71)</u>	<u>\$ 0.23</u>

Potential common shares consist of the shares issuable upon the release of restricted stock units (“RSUs”) and performance-based stock units (“PSUs”) and the exercise of stock appreciation rights (“SARs”). The Company’s unvested RSUs and PSUs, and unexercised SARs are not considered participating securities as they do not have rights to dividends or dividend equivalents prior to release or exercise.

The following table sets forth the number of potential common shares not included in the calculation of diluted earnings per share because their effects were anti-dilutive:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)		(in thousands)	
Class A	368	241	2,695	285
Class B	—	—	244	—

4. FAIR VALUE MEASUREMENTS

When determining fair value, the Company uses a three-tier value hierarchy which prioritizes the inputs used in measuring fair value. Whenever possible, the Company uses observable market data. The Company relies on unobservable inputs only when observable market data is not available. Classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. The assessment of the significance of a particular item to the fair value measurement in its entirety requires judgment, including the consideration of inputs specific to the asset or liability.

- Level 1 - Money market mutual funds and short-term investments are recorded at fair value based upon quoted market prices.
- Level 2 - The asset or liability related to the interest rate swap is recorded at fair value based upon a valuation model that uses relevant observable market inputs at quoted intervals, such as forward yield curves.

The following table sets forth the financial assets and liability, measured at fair value, as of October 31, 2019 and January 31, 2019:

	Fair value measurement at reporting date using		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(in thousands)	
Money market mutual funds as of October 31, 2019	\$ 107,905		
Money market mutual funds as of January 31, 2019	\$ 107,855		
Short-term investments as of October 31, 2019	\$ -		
Short-term investments as of January 31, 2019	\$ 1,200		
Liability related to the interest rate swap as of October 31, 2019		\$ (216)	
Asset related to the interest rate swap as of January 31, 2019		\$ 136	

Money market mutual funds are classified as part of “Cash and equivalents” in the accompanying Condensed Consolidated Balance Sheets. The amount of cash and equivalents deposited with commercial banks was \$25.9 million and \$31.6 million at October 31, 2019 and January 31, 2019, respectively.

The Company’s note payable bears a variable market interest rate commensurate with the Company’s credit standing. Therefore, the carrying amount outstanding under the note payable reasonably approximates fair value based on Level 2 inputs.

There have been no transfers between fair value measurements levels during the nine months ended October 31, 2019.

Derivative Instruments

The Company entered into an interest rate swap in May 2012 to mitigate the exposure to the variability of one month LIBOR for its floating rate debt described in Note 7 “Debt” within these Notes to Condensed Consolidated Financial Statements. The fair value of the interest rate swap is reflected as an asset or liability in the Condensed Consolidated Balance Sheets and the change in fair value is reported in “Other (income) expense, net” in the Condensed Consolidated Statements of Operations and Comprehensive (Loss) Income. The fair value of the interest rate swap is estimated as the net present value of projected cash flows based upon forward interest rates at the balance sheet date.

The fair values of the derivative instrument at October 31, 2019 and January 31, 2019 were as follows (in thousands):

	Balance Sheet Location	Liability / Asset	
		Fair Value	
		October 31, 2019	January 31, 2019
Derivative instrument:			
	(Other liabilities) / Other assets, net		
Interest rate swap		\$ (216)	\$ 136
Total		\$ (216)	\$ 136

The change in fair value of the interest rate swap recognized in the Condensed Consolidated Statement of Operations and Comprehensive (Loss) Income was \$(101,000) and \$(352,000) for the three and nine months ended October 31, 2019, respectively; compared to \$46,000 and \$198,000 for the three and nine months ended October 31, 2018, respectively.

5. CAPITALIZED SOFTWARE COSTS

Capitalized software costs and accumulated amortization at October 31, 2019 and January 31, 2019 were as follows:

	October 31, 2019	January 31, 2019
	(in thousands)	
Capitalized software costs:		
Capitalized software development costs	\$ 3,108	\$ 2,314
Acquired software technology	135	135
	3,243	2,449
Less accumulated amortization	(1,334)	(851)
Capitalized software costs, net	\$ 1,909	\$ 1,598

The Company's capitalized software development costs relate to translations and localizations of QAD Adaptive Applications. Acquired software technology costs relate to acquired technology purchased during the second quarter fiscal 2019.

It is the Company's policy to write off capitalized software development costs once fully amortized. Accordingly, during the first nine months of fiscal 2020, approximately \$0.2 million of costs and accumulated amortization were removed from the balance sheet.

Amortization of capitalized software costs was \$0.2 million and \$0.7 million for the three and nine months ended October 31, 2019, respectively; compared to \$0.2 million and \$0.4 million for the three and nine months ended October 31, 2018, respectively. Amortization of capitalized software costs is included in "Cost of license" in the accompanying Condensed Consolidated Statements of Operations and Comprehensive (Loss) Income.

The following table summarizes the estimated amortization expense relating to the Company's capitalized software costs as of October 31, 2019:

Fiscal Years	(in thousands)
2020 remaining	\$ 262
2021	893
2022	549
2023	191
Thereafter	14
	<u>\$ 1,909</u>

6. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in the carrying amount of goodwill for the nine months ended October 31, 2019 were as follows:

	Gross Carrying Amount	Accumulated Impairment (in thousands)	Goodwill, Net
Balance at January 31, 2019	\$ 28,031	\$ (15,608)	\$ 12,423
Impact of foreign currency translation	(32)	-	(32)
Balance at October 31, 2019	<u>\$ 27,999</u>	<u>\$ (15,608)</u>	<u>\$ 12,391</u>

The Company performed its annual goodwill impairment review during the fourth quarter of fiscal 2019. The analysis compared the Company's market capitalization to its net assets as of the test date, November 30, 2018. As the market capitalization significantly exceeded the Company's net assets, there was no indication of goodwill impairment for fiscal 2019. The Company monitors the indicators for goodwill impairment testing between annual tests. No adverse events occurred during the nine months ended October 31, 2019 that would cause the Company to test goodwill for impairment.

Intangible Assets

	October 31, 2019	January 31, 2019
	(in thousands)	(in thousands)
Amortizable intangible assets:		
Customer relationships	\$ 1,348	\$ 1,348
Less accumulated amortization	(318)	(115)
Amortizable intangible assets, net	<u>\$ 1,030</u>	<u>\$ 1,233</u>

The Company's intangible assets as of October 31, 2019 are related to the acquisitions completed in the second and third quarters of fiscal 2019. Intangible assets are included in "Other assets, net" in the accompanying Condensed Consolidated Balance Sheets, and are amortized over an estimated five year useful life.

Amortization of intangibles from acquisitions was \$67,000 and \$200,000 for the third quarter and first nine months of fiscal 2020, respectively, compared to \$45,000 for both the third quarter and nine months ended October 31, 2018. The following table summarizes the future amortization expense relating to the Company's intangible assets as of October 31, 2019:

Fiscal Years	(in thousands)
2020 remaining	\$ 67
2021	270
2022	270
2023	270
Thereafter	153
	<u>\$ 1,030</u>

7. DEBT

	October 31, 2019	January 31, 2019
	(in thousands)	(in thousands)
Note payable	\$ 12,991	\$ 13,358
Less current maturities	(498)	(487)
Less loan origination costs, net	(27)	(35)
Long-term debt	<u>\$ 12,466</u>	<u>\$ 12,836</u>

Note Payable

Effective May 30, 2012, QAD Ortega Hill, LLC entered into a variable rate credit agreement (the "2012 Mortgage") with Mechanics Bank (formerly Rabobank, N.A.), to refinance a pre-existing mortgage. The 2012 Mortgage has an original principal balance of \$16.1 million and bears interest at the one month LIBOR rate plus 2.25%. One month LIBOR was 1.88% at October 31, 2019. The 2012 Mortgage matures in June 2022 and is secured by the Company's headquarters located in Santa Barbara, California. In conjunction with the 2012 Mortgage, QAD Ortega Hill, LLC entered into an interest rate swap with Mechanics Bank. The swap agreement has an initial notional amount of \$16.1 million and a schedule matching that of the underlying loan that synthetically fixes the interest rate on the debt at 4.31% for the entire term of the 2012 Mortgage. The terms of the 2012 Mortgage provide for QAD Ortega Hill, LLC to make net monthly payments of \$88,100 consisting of principal and interest and one final payment of \$11.7 million. The unpaid balance as of October 31, 2019 was \$13.0 million.

8. LEASES

The Company leases certain office space, office equipment and autos with remaining lease terms from one month to twelve years under leases classified primarily as operating. The Company has options to terminate some of its leases early. The lease term represents the period up to the early termination date unless it is reasonably certain that QAD will not exercise the early termination option. For certain leases, the Company has options to extend the lease term for additional periods ranging from one year to ten years.

The Company treats a contract as a lease when the contract conveys the right to use a physically distinct asset for a period of time in exchange for consideration, the Company directs the use of the asset and the Company obtains substantially all the economic benefits of the asset. These leases are recorded as right-of-use ("ROU") assets and lease obligation liabilities for leases with terms greater than 12 months. ROU assets represent the Company's right to use an underlying asset for the entirety of the lease term. Lease liabilities represent the Company's obligation to make payments over the life of the lease. An ROU asset and a lease liability are recognized at commencement of the lease based on the present value of the lease payments over the life of the lease. Initial direct costs are included as part of the ROU asset upon commencement of the lease. Since the interest rate implicit in a lease is generally not readily determinable, the Company uses an incremental borrowing rate to determine the present value of the lease payments. The incremental borrowing rate represents the rate of interest the Company would have to pay to borrow on a collateralized basis over a similar lease term to obtain an asset of similar value. The Company used the incremental borrowing rate on February 1, 2019 for all leases that commenced prior to that date.

The Company reviews the impairment of ROU assets consistent with the approach applied for the Company's other long-lived assets. The Company reviews the recoverability of long-lived assets when events or changes in circumstances occur that indicate the carrying value of the asset may not be recoverable. The assessment of possible impairment is based on the Company's ability to recover the carrying value of the asset from the expected undiscounted future pre-tax cash flows of the related operations.

The Company has applied the practical expedient available for lessees in which lease and non-lease components are accounted for as a single lease component for all asset classes. The Company also elected the practical expedient to exclude short-term leases (leases with original terms of 12 months or less) from ROU asset and lease liability accounts.

A majority of the Company's leases are operating and lease expense is recognized on a straight-line basis over the lease term, while variable lease payments are expensed as incurred. Variable payments change due to facts or circumstances occurring after the commencement date, other than the passage of time, and do not result in a remeasurement of lease liabilities. The Company's variable lease payments include payments to lessors for taxes, maintenance, insurance and other operating costs as well as payments that are adjusted based on a CPI index or rate and payments in excess of fixed amounts, such as excess mileage charges on leased autos. The Company's lease agreements do not contain any significant residual value guarantees or restrictive covenants.

Supplemental balance sheet information related to leases was as follows (in thousands):

	October 31, 2019
Assets	
Operating	\$ 16,899
Finance	168
Total lease assets, net	<u>\$ 17,067</u>
Liabilities	
Current	
Operating	\$ 4,602
Finance	66
Noncurrent	
Operating	13,051
Finance	77
Total lease liabilities	<u>\$ 17,796</u>

The components of lease cost were as follows (in thousands):

	Three Months Ended October 31, 2019	Nine Months Ended October 31, 2019
Operating lease cost	\$ 1,495	\$ 4,460
Finance lease cost	21	35
Variable lease cost	354	1,123
Short-term lease cost	44	184
Net lease cost	<u>\$ 1,914</u>	<u>\$ 5,802</u>

Lease term and discount rate were as follows:

	October 31, 2019
Weighted-average remaining lease term (in years)	
All leases	5.6
Weighted-average discount rate	
All leases	6.14%

Supplemental disclosures of cash flow information related to leases were as follows (in thousands):

	Nine Months Ended October 31, 2019
Cash flows related to lease liabilities	
Operating cash flows related to operating leases	\$ (4,577)
Financing cash flows related to finance leases	(28)
Total cash flows related to lease liabilities	\$ (4,605)
Non-cash items	
Leased assets obtained in exchange for new operating lease liabilities	\$ 7,673
Leased assets obtained in exchange for new finance lease liabilities	200
Total non-cash items	\$ 7,873

Maturities of lease liabilities were as follows as of October 31, 2019 (in millions):

	Operating Leases
Within 1 year	\$ 5.6
2 years	4.0
3 years	2.9
4 years	2.3
5 years	2.0
Thereafter	4.5
Total lease payments	\$ 21.3
Less: Imputed interest	(3.5)
Present value of lease liabilities	\$ 17.8

As of January 31, 2019 future minimum lease payments, as defined under the previous lease accounting guidance of ASC Topic 840, under non-cancelable operating leases for the following five fiscal years and thereafter were as follows (in millions):

2020	\$ 5.6
2021	4.6
2022	2.8
2023	1.8
2024	1.5
Thereafter	2.8
Total	\$ 19.1

The Company is a lessor for certain office space owned by the Company and leased to others under non-cancelable leases with initial terms ranging from three months to one year. These lease agreements provide for a fixed base rent and automatically renew for periods from three months to one year unless terminated. All leases are considered operating leases. There are no rights to purchase the premises and no residual value guarantees. For the three and nine months ended October 31, 2019 the Company received \$0.2 and \$0.7 million, respectively, of lease income from company-owned locations.

9. ACCUMULATED OTHER COMPREHENSIVE LOSS

The components of accumulated other comprehensive loss, net of taxes, were as follows:

	Foreign Currency Translation Adjustments (in thousands)
Balance as of January 31, 2019	\$ (7,661)
Other comprehensive loss before reclassifications	(278)
Amounts reclassified from accumulated other comprehensive loss	—
Net current period other comprehensive loss	(278)
Balance as of October 31, 2019	\$ (7,939)

10. INCOME TAXES

In determining the quarterly provision for income taxes, the Company calculated income tax expense based on actual quarterly results in the third quarter of fiscal year 2020, compared to the prior year where the Company calculated income tax expense based on the estimated annual tax rate. Results were adjusted for discrete items recorded during the period. Actual quarterly results are being used in fiscal 2020 since they provide a more reliable estimate of quarterly tax expense given the Company has recorded net losses during the first nine months of fiscal 2020 and expects to record a net loss for the full fiscal year.

The Company recorded income tax expense of \$1.4 million and \$0.6 million in the third quarter of fiscal 2020 and 2019, respectively. The Company's effective tax rate was 92% during the third quarter of fiscal 2020 compared to 17% for the same period in the prior year. The change in the effective tax rate was primarily due to lower pre-tax income in the third quarter of fiscal 2020 and overall expected losses for the fiscal 2020 year compared to higher pre-tax income in the same period of fiscal 2019 and overall expected profits for the fiscal 2019 year. Additionally, \$0.8 million of tax expense relates to an out-of-period adjustment recorded in the third quarter of fiscal 2020 to correct a valuation allowance initially placed on the Company's Irish Principal's deferred tax assets in the second quarter of fiscal 2020. The Company concluded that the out-of-period correction is not material to the current or prior quarter condensed consolidated financial statements.

The Company recorded income tax expense of \$12.0 million and \$3.3 million for the first nine months of fiscal 2020 and 2019, respectively. The Company's effective tax rate was (275%) during the first nine months of fiscal 2020 compared to 37% for the same period in the prior year. The change in the effective tax rate was primarily due to a valuation allowance that was placed on the Company's Irish Principal's net deferred tax assets and a pre-tax loss for the first nine months of fiscal 2020 compared to pre-tax income for the same period of fiscal 2019. The placement of a valuation allowance resulted in recording \$10.8 million to income tax expense.

When calculating QAD's income tax expense for the first nine months of fiscal 2020 and fiscal 2019, the Company considered the U.S. Tax Cuts and Jobs Act ("Tax Act") enacted December 22, 2017. The Company calculated an estimate for global intangible low-tax income ("GILTI") in the Company's tax expense based on the final GILTI regulations released on June 14, 2019 by the U.S. Department of Treasury. These regulations provide computational, definitional, and anti-avoidance rule guidance relating to the determination of a U.S. shareholder's GILTI inclusion. In the third quarter of fiscal 2020, tax expense was not impacted by GILTI since the Company is experiencing losses overseas.

The Company has elected to treat the deferred taxes related to GILTI provisions as a current-period expense when incurred (the "period cost method").

The gross amount of unrecognized tax benefits was \$1.2 million at October 31, 2019, including interest and penalties. The unrecognized tax benefits were reduced by \$1 million with an offset to deferred tax assets, as a result of the netting required under ASU 2013-11 *Income Taxes (Topic 740) Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*. The entire amount of unrecognized tax benefits, if recognized, will impact the Company's effective tax rate. This liability is classified as long-term unless the liability is expected to conclude within twelve months of the reporting date.

The Company's policy is to recognize interest and penalties, if any, related to unrecognized tax benefits as a component of income tax expense. As of October 31, 2019, the Company has accrued approximately \$0.1 million of expense related to interest and penalties to unrecognized tax benefits.

The Company reviews its net deferred tax assets by entity on a quarterly basis to determine whether a valuation allowance is necessary based on the more-likely-than-not standard. During the third quarter of fiscal year 2020, management considered all available evidence, both positive and negative, to determine whether, based on the weight of that evidence, a valuation allowance was needed. Management assesses the transfer pricing methodology, the historical profits, the economics of the country in which the entity operates, the current and future customer base, the type and character of the deferred tax asset and any other current and relevant information by entity to draw its conclusion.

A valuation allowance has been established for select foreign jurisdictions along with U.S. federal and state deferred tax assets. The following table discloses the Company's valuation allowance by entity (in millions):

Jurisdiction	October 31, 2019	January 31, 2019
U.S. federal and state	\$ 29.0	\$ 24.7
Irish Principal	11.2	-
Brazil	5.4	5.2
Germany	2.7	2.9
Hong Kong	0.6	1.2
South Africa	0.2	-
Belgium	-	0.9
Total valuation allowance	<u>\$ 49.1</u>	<u>\$ 34.9</u>

The Company files U.S. federal, state, and foreign tax returns that are subject to audit by various tax authorities. The Company is currently under audit in:

- India for fiscal years ended March 31, 2010 and 2013
- Netherlands for fiscal year ended January 31, 2016
- Germany for fiscal years ended January 31, 2015, 2016 and 2017

During the fiscal year 2020, the Company closed the following audits with an immaterial or no adjustment:

- Tennessee for fiscal years ended January 31, 2014, 2015, 2016 and 2017
- India for fiscal year ended March 31, 2014
- Switzerland for fiscal years ended January 31, 2014, 2015, 2016, 2017 and 2018
- Thailand for fiscal year ended January 31, 2017

11. STOCKHOLDERS' EQUITY

Dividends

The following table sets forth the dividends that were declared by the Company during the first nine months of fiscal 2020:

Declaration Date	Record Date	Payable	Dividend Class A	Dividend Class B	Amount (in thousands)
9/4/2019	9/18/2019	9/25/2019	\$ 0.072	\$ 0.06	\$ 1,426
6/24/2019	7/10/2019	7/17/2019	\$ 0.072	\$ 0.06	\$ 1,387
4/9/2019	4/23/2019	5/3/2019	\$ 0.072	\$ 0.06	\$ 1,374

12. STOCK-BASED COMPENSATION

The Company's equity awards consist of RSUs, PSUs and SARs. For a description of the Company's stock-based compensation plans, see Note 6 "Stock-Based Compensation" in Notes to Consolidated Financial Statements included in the Annual Report on Form 10-K for the year ended January 31, 2019.

Performance Stock Units ("PSUs")

In June 2019, the Company began issuing performance-based stock units ("PSUs") to select employees. PSUs granted to employees under the 2016 Program are generally released 1/3 after each year of service for three years and are contingent upon employment with the Company and achievement of pre-determined performance objectives. To determine the anticipated achievement of the performance objectives, management must make assumptions regarding the likelihood of the Company meeting those targets. The number of PSUs that vest will be predicated on the Company achieving performance objectives during the measurement period subsequent to the date of grant. Depending on the financial performance levels achieved, a percentage of the PSUs (0% to 200% of the target award) will vest to the grantees of those stock units. There is no guarantee that the Company's outstanding PSUs will vest in whole or in part.

Stock-Based Compensation

The following table sets forth reported stock-based compensation expense for the three and nine months ended October 31, 2019 and 2018:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
	(in thousands)		(in thousands)	
Cost of subscription	\$ 84	\$ 65	\$ 226	\$ 182
Cost of maintenance and other revenue	143	148	396	358
Cost of professional services	404	353	1,085	906
Sales and marketing	607	611	1,562	1,547
Research and development	492	442	1,360	1,170
General and administrative	1,174	529	3,767	3,455
Total stock-based compensation expense	\$ 2,904	\$ 2,148	\$ 8,396	\$ 7,618

RSU Information

The estimated fair value of RSUs was calculated based on the closing price of the Company's common stock on the date of grant, reduced by the present value of dividends foregone during the vesting period.

The following table summarizes the activity for RSUs for the nine months ended October 31, 2019:

	RSUs	Weighted Average Grant Date Fair Value
	(in thousands)	
Outstanding at January 31, 2019	663	\$ 36.64
Granted	261	39.74
Released ⁽¹⁾	(256)	32.31
Forfeited	(35)	37.90
Outstanding at October 31, 2019	<u>633</u>	<u>\$ 39.61</u>

(1) The number of RSUs released includes shares withheld on behalf of employees to satisfy the minimum statutory tax withholding requirements.

The Company withholds a portion of the released shares as consideration for the Company's payment of applicable employee income taxes. During the three months ended October 31, 2019, the Company withheld 300 shares for payment of these taxes at a value of \$11,000. During the nine months ended October 31, 2019, the Company withheld 80,000 shares for payment of these taxes at a value of \$3.4 million.

Total unrecognized compensation cost related to RSUs was approximately \$21.6 million as of October 31, 2019. This cost is expected to be recognized over a weighted-average period of approximately 2.9 years.

PSU Information

The estimated fair value of PSUs was calculated based on the closing price of the Company's common stock on the date of grant, reduced by the present value of dividends foregone during the vesting period.

The following table summarizes the activity for PSUs for the nine months ended October 31, 2019:

	PSUs	Weighted Average Grant Date Fair Value
	(in thousands)	
Outstanding at January 31, 2019	—	\$ —
Granted	93	39.82
Released	—	—
Forfeited	—	—
Outstanding at October 31, 2019	<u>93</u>	<u>\$ 39.82</u>

Total unrecognized compensation cost related to PSUs was approximately \$1.9 million as of October 31, 2019. This cost is expected to be recognized over a weighted-average period of approximately 1.7 years.

SAR Information

The following table summarizes the activity for outstanding SARs for the nine months ended October 31, 2019:

	SARs (in thousands)	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 31, 2019	2,533	\$ 20.81		
Granted	—	—		
Exercised	(1,028)	17.04		
Expired	—	—		
Forfeited	—	—		
Outstanding at October 31, 2019	1,505	\$ 23.39	3.2	\$ 34,508
Vested and exercisable at October 31, 2019	1,220	\$ 19.42	2.6	\$ 31,855

The aggregate intrinsic value in the table above represents the total pretax intrinsic value (the aggregate difference between the closing stock price of the Company's common stock based on the last trading day as of October 31, 2019, and the exercise price for in-the-money SARs) that would have been received by the holders if all SARs had been exercised on October 31, 2019. The total intrinsic value of SARs exercised in the nine months ended October 31, 2019 was \$20.6 million.

The number of SARs exercised includes shares withheld on behalf of employees to satisfy minimum statutory tax withholding requirements. During the three months ended October 31, 2019, the Company withheld 1,000 shares for payment of these taxes at a value of \$66,000. During the nine months ended October 31, 2019, the Company withheld 5,000 shares for payment of these taxes at a value of \$0.2 million.

At October 31, 2019, there was approximately \$3.0 million of total unrecognized compensation cost related to unvested SARs. This cost is expected to be recognized over a weighted-average period of approximately 2.3 years.

13. COMMITMENTS AND CONTINGENCIES

Indemnifications

The Company sells software licenses and services to its customers under written agreements. Each agreement contains the relevant terms of the contractual arrangement with the customer and generally includes certain provisions for indemnifying the customer against losses, expenses and liabilities from damages that may be awarded against the customer in the event the Company's software is found to infringe upon certain intellectual property rights of a third party. The agreements generally limit the scope of and remedies for such indemnification obligations in a variety of industry-standard respects.

The Company believes its internal development processes and other policies and practices limit its exposure related to the indemnification provisions of the agreements. For several reasons, including the lack of prior indemnification claims and the lack of a monetary liability limit for certain infringement cases under the agreements, the Company cannot determine the maximum amount of potential future payments, if any, related to such indemnification provisions.

Legal Actions

The Company is subject to various legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. While the outcome of these claims cannot be predicted with certainty, management does not believe that the outcome of any of these legal matters will have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

14. BUSINESS SEGMENT INFORMATION

The Company markets its products and services worldwide, primarily to companies in the manufacturing industry, including automotive, consumer products, food and beverage, high technology, industrial products and life sciences industries. The Company sells and licenses its products through its direct sales force in four geographic regions: North America; Europe, the Middle East and Africa ("EMEA"); Asia Pacific; and Latin America and through distributors where third parties can extend sales reach more effectively or efficiently. The North America region includes the United States and Canada. The EMEA region includes Europe, the Middle East and Africa. The Asia Pacific region includes Asia and Oceania. The Latin America region includes South America, Central America and Mexico. In accordance with Topic 606, the Company reports disaggregated revenue by geography and by industry as the Company believes it best depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. The Company does not consider reporting by industry an operating segment in accordance with ASC 280, *Segment Reporting*, because discrete financial information by industry is not available. The Company's Chief Operating Decision Maker, the Chief Executive Officer, reviews the consolidated results within one operating segment.

Subscription, license and maintenance revenues are generally assigned to the region where a majority of end users are located. Professional services revenue is assigned based on the region where the services are delivered.

	Three Months Ended		Nine Months Ended	
	October 31,		October 31,	
	2019	2018	2019	2018
	(in thousands)		(in thousands)	
Revenue:				
North America (1)	\$ 38,302	\$ 39,870	\$ 112,798	\$ 119,183
EMEA	22,233	22,549	66,860	74,542
Asia Pacific	11,776	12,348	35,413	37,773
Latin America	5,496	4,810	17,149	18,812
	<u>\$ 77,807</u>	<u>\$ 79,577</u>	<u>\$ 232,220</u>	<u>\$ 250,310</u>

(1) Sales into Canada accounted for 2% of North America total revenue in the three and nine months ended October 31, 2019, and for 2% of North America total revenue in the three and nine months ended October 31, 2018.

ITEM 2 – MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

In addition to historical information, this Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. Any statements contained herein that are not statements of historical fact should be construed as forward looking statements, including statements that are preceded or accompanied by such words as “may,” “believe,” “could,” “anticipate,” “projects,” “estimates,” “will likely result,” “should,” “would,” “might,” “plan,” “expect,” “intend” and words of similar meaning or the negative of these terms or other comparable terminology. Forward-looking statements are based on the Company’s current expectations and assumptions regarding its business, the economy and future conditions. A number of risks and uncertainties could cause actual results to differ materially from those expressed or implied in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in Part I, Item 1A entitled “Risk Factors” within our Annual Report on Form 10-K for the year ended January 31, 2019. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management’s opinions, expectations and projections only as of the date hereof and are subject to risks, uncertainties and assumptions about our business. We undertake no obligation to revise or update or publicly release the results of any revision or update to these forward-looking statements except as required by applicable securities laws. Readers should carefully review the risk factors and other information described in other documents we file from time to time with the Securities and Exchange Commission (“SEC”).

INTRODUCTION

The following discussion should be read in conjunction with the information included within our Annual Report on Form 10-K for the year ended January 31, 2019, and the Condensed Consolidated Financial Statements and notes thereto included elsewhere in this Quarterly Report on Form 10-Q.

CRITICAL ACCOUNTING POLICIES

Our condensed consolidated financial statements are prepared applying certain critical accounting policies. The SEC defines “critical accounting policies” as those that require application of management’s most difficult, subjective, or complex judgments. Critical accounting policies require numerous estimates and strategic or economic assumptions that may prove inaccurate or subject to variations and may significantly affect our reported results and financial position for the period or in future periods. Changes in underlying factors, assumptions, or estimates in any of these areas could have a material impact on our future financial condition and results of operations. Our financial statements are prepared in accordance with U.S. GAAP, and they conform to general practices in our industry. We apply critical accounting policies consistently from period to period and intend that any change in methodology occur in an appropriate manner. Accounting policies currently deemed critical, including a) revenue; b) accounts receivable allowances for doubtful accounts; c) goodwill and intangible assets – impairment assessments; d) income taxes; and e) stock-based compensation are further discussed in our Annual Report on Form 10-K for the fiscal year ended January 31, 2019. There have been no significant changes to our accounting policies and estimates as discussed in our Annual Report on Form 10-K for the fiscal year ended January 31, 2019.

BUSINESS OVERVIEW

QAD Inc. (“QAD”, the “Company”, “we” or “us”) is a leading provider of flexible, cloud-based enterprise software and services for global manufacturing companies. At QAD’s annual user conference in early May, we officially launched our solution portfolio “QAD Adaptive Applications” and our flagship ERP solution “QAD Adaptive ERP” to reflect the value QAD brings to our manufacturing customers. In our Annual Report on Form 10-K for the fiscal year ended January 31, 2019, we referred to these solutions as “QAD Enterprise Applications” or “Enterprise Applications”. QAD Adaptive Applications support operational requirements in the areas of financials, customer management, supply chain, manufacturing, service and support, analytics, business process management and integration. QAD’s portfolio also includes related solutions for quality management software, supply chain management software, transportation management software and business-to-business interoperability. QAD solutions support customers in the automotive, consumer products, food and beverage, high technology, industrial manufacturing and life sciences industries to streamline processes, improve operational performance, comply with regulatory requirements and meet industry standards.

We have four principal sources of revenue:

- Subscription of QAD Adaptive Applications through our cloud offering in a Software as a Service (“SaaS”) model as well as other hosted applications;
- License purchases of QAD Adaptive Applications;
- Maintenance and support, including technical support, training materials, product enhancements and upgrades; and
- Professional services, including implementations, technical and application consulting, training, migrations and upgrades.

We operate primarily in the following four geographic regions: North America, Latin America, EMEA and Asia Pacific. In the first nine months of fiscal 2020, approximately 49% of our total revenue was generated in North America, 29% in EMEA, 15% in Asia Pacific and 7% in Latin America. The majority of our revenue is generated from global customers who have operations in multiple countries throughout the world. A significant portion of our revenue and expenses are derived from international operations which are primarily conducted in foreign currencies. As a result, changes in the value of foreign currencies relative to the U.S. dollar have impacted our results of operations and may impact our future results of operations. At October 31, 2019, we employed approximately 1,930 employees worldwide, of which 625 employees were based in North America, 610 employees in EMEA, 580 employees in Asia Pacific and 115 employees in Latin America.

Our customer base and our target markets are primarily global manufacturing companies; therefore, our results are heavily influenced by the state of the manufacturing economy on a global basis. As a result, our management team monitors several economic indicators, with particular attention to the Global and Country Purchasing Managers’ Indexes (“PMI”). The PMI is a survey conducted on a monthly basis by polling businesses that represent the makeup of respective sectors. Since most of our customers are manufacturers, our revenue has historically correlated with fluctuations in the manufacturing PMI. Global macro-economic trends and manufacturing spending are important barometers for our business, and the health of the U.S., Western European and Asian economies have a meaningful impact on our financial results.

We are transitioning our business model from traditional on-premises licensing to cloud-based subscriptions. During fiscal 2019 and the first nine months of fiscal 2020, we closed most of our new customer deals in the cloud. Subscription revenue grew 15% in the third quarter of fiscal 2020 compared to the same period last year and our twelve-month trailing subscription billings grew by 18%. In addition, we have converted approximately 15% of our existing customers from on-premises licenses to our cloud-based solution. Recurring revenue, which we define as subscription revenue plus maintenance revenue accounted for 72% of total revenue for the first nine months of fiscal 2020, compared to 64% for the same period last year. By reducing our customers’ up-front costs and providing continuous application and infrastructure support, we expect our cloud business model will be more attractive than on-premises licenses. We expect recurring revenue to remain a majority of total revenue as our subscription revenue continues to grow.

RESULTS OF OPERATIONS

We operate in several geographical regions as described in Note 14 “Business Segment Information” within the Notes to Condensed Consolidated Financial Statements. In order to present our results of operations without the effects of changes in foreign currency exchange rates, we provide certain financial information on a “constant currency basis”, which is in addition to the actual financial information presented in the following tables. In order to calculate our constant currency results, we apply the current foreign currency exchange rates to the prior period results.

Revenue

	Three Months Ended October 31, 2019	Three Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Revenue						
Subscription	\$ 27,328	\$ 23,863	\$ 3,742	\$ (277)	\$ 3,465	15%
Percentage of total revenue	35%	30%				
License	3,295	4,631	(1,239)	(97)	(1,336)	-29%
Percentage of total revenue	4%	6%				
Maintenance and other	29,699	30,401	(219)	(483)	(702)	-2%
Percentage of total revenue	38%	38%				
Professional services	17,485	20,682	(2,877)	(320)	(3,197)	-15%
Percentage of total revenue	23%	26%				
Total revenue	<u>\$ 77,807</u>	<u>\$ 79,577</u>	<u>\$ (593)</u>	<u>\$ (1,177)</u>	<u>\$ (1,770)</u>	-2%

	Nine Months Ended October 31, 2019	Nine Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Revenue						
Subscription	\$ 78,522	\$ 67,813	\$ 11,847	\$ (1,138)	\$ 10,709	16%
Percentage of total revenue	34%	27%				
License	11,277	16,458	(4,715)	(466)	(5,181)	-31%
Percentage of total revenue	5%	7%				
Maintenance and other	89,184	92,458	(1,104)	(2,170)	(3,274)	-4%
Percentage of total revenue	38%	37%				
Professional services	53,237	73,581	(18,261)	(2,083)	(20,344)	-28%
Percentage of total revenue	23%	29%				
Total revenue	<u>\$ 232,220</u>	<u>\$ 250,310</u>	<u>\$ (12,233)</u>	<u>\$ (5,857)</u>	<u>\$ (18,090)</u>	-7%

Total Revenue. On a constant currency basis, total revenue was \$77.8 million for the third quarter of fiscal 2020, representing a \$0.6 million, or 1%, decrease from \$78.4 million for the same period last year. The primary reason for the decrease in total revenue was due to lower professional services revenue. Our results for the third quarter of fiscal 2020 also included decreases in license revenue and maintenance and other revenue. As our existing customers convert from on-premises licenses to using our software in the cloud, we expect license revenue and maintenance and other revenue will continue to decline. These decreases were offset by a 16% increase in subscription revenue, on a constant currency basis, as we are focused on selling our software solutions to new customers in the cloud. Revenue outside the North America region as a percentage of total revenue was 51% and 50% for the third quarter of fiscal 2020 and 2019, respectively. On a constant currency basis, total revenue decreased in our North America and Asia Pacific regions and increased in our EMEA and Latin America regions during the third quarter of fiscal 2020 when compared to the same period in the prior year.

On a constant currency basis, total revenue was \$232.2 million for the first nine months of fiscal 2020, representing a \$12.3 million, or 5%, decrease from \$244.5 million for the same period last year. When comparing categories within total revenue at constant currency rates, our results for the first nine months of fiscal 2020 included decreases in professional services, license and maintenance and other partially offset by an increase in subscription. Revenue outside the North America region as a percentage of total revenue was 51% and 52% for the first nine months of both fiscal 2020 and 2019, respectively. On a constant currency basis, total revenue decreased across all regions during the first nine months of fiscal 2020 when compared to the same period in the prior year.

Our products are sold to manufacturing companies that operate mainly in the following six industries: automotive, consumer products, food and beverage, high technology, industrial products and life sciences. Given the similarities between consumer products and food and beverage as well as between high technology and industrial products, we aggregate them for management review. The following table presents revenue by industry for the three and nine months ended October 31, 2019 and 2018:

	Three months ended October 31,		Nine months ended October 31,	
	2019	2018	2019	2018
Automotive	36%	39%	36%	41%
Consumer products and food and beverage	15%	16%	15%	16%
High technology and industrial products	34%	30%	34%	30%
Life sciences and other	15%	15%	15%	13%
Total revenue	100%	100%	100%	100%

The decrease in percentage of revenue by industry for automotive is primarily related to a reduction in professional services revenue following the completion of a large, multisite global implementation project for a customer in the automotive industry that was substantially completed at the end of the fourth quarter of fiscal 2019.

Subscription Revenue. Subscription revenue consists of recurring fees from customers to access our products via the cloud and other subscription offerings. Our cloud offerings typically include access to QAD software, hosting, application support, maintenance support and product updates, if and when available. Included in subscription revenue are one-time set up fees for technical services such as configuration of the database and access to the environment.

On a constant currency basis, subscription revenue was \$27.3 million for the third quarter of fiscal 2020, representing a \$3.7 million, or 16%, increase from \$23.6 million for the same period last year. On a constant currency basis, subscription revenue increased across all regions during the third quarter of fiscal 2020 when compared to the same period last year. One of the metrics that management uses to monitor subscription performance is the number of new cloud deals that have been signed in the period. In the third quarter of fiscal 2020 we closed 25 new cloud deals, including 14 new cloud customers and 11 conversions from existing customers who previously purchased on-premises licenses. This compared to the third quarter of fiscal 2019 when we closed 15 new cloud deals, including ten new cloud customers and five conversions from existing customers who previously purchased on-premises licenses. The increase in subscription revenue consists of new customer sites; existing customers converting from on-premises licenses; and additional users and modules purchased by our existing cloud customers.

On a constant currency basis, subscription revenue was \$78.5 million for the first nine months of fiscal 2020, representing an \$11.8 million, or 18%, increase from \$66.7 million for the same period last year. On a constant currency basis, subscription revenue increased across all regions during the first nine months of fiscal 2020 when compared to the prior year. In the first nine months of fiscal 2020 we closed 64 new cloud deals, including 32 new cloud customers and 32 conversions from existing customers who previously purchased on-premises licenses. This compared to the first nine months of fiscal 2019 when we closed 44 new cloud deals, including 29 new cloud customers and 15 conversions from existing customers who previously purchased on-premises licenses.

We track our retention rate of subscription and maintenance by calculating the annualized revenue of customer sites with contracts up for renewal at the beginning of the period compared to the annualized revenue associated with the customer sites that have canceled during the period. The percentage of revenue not canceled is our retention rate. Conversions to the cloud are not considered cancellations for purposes of the maintenance retention calculation. Both our subscription and maintenance customer retention rates are in excess of 90%.

The following table presents subscription revenue by region for the three and nine months ended October 31, 2019 and 2018:

	Three months ended October 31,		Nine months ended October 31,	
	2019	2018	2019	2018
North America	57%	57%	56%	56%
EMEA	26%	26%	26%	26%
Asia Pacific	11%	12%	11%	12%
Latin America	6%	5%	7%	6%
Total subscription revenue	100%	100%	100%	100%

The following table presents subscription revenue by industry for the three and nine months ended October 31, 2019 and 2018:

	Three months ended October 31,		Nine months ended October 31,	
	2019	2018	2019	2018
Automotive	38%	32%	36%	33%
Consumer products and food and beverage	15%	18%	16%	18%
High technology and industrial products	25%	25%	26%	24%
Life sciences and other	22%	25%	22%	25%
Total subscription revenue	100%	100%	100%	100%

License Revenue. License revenue is derived from software license fees that customers pay for our core product, QAD Adaptive Applications, and any add-on modules they purchase. Our revenue mix has continued to shift from license to subscription as a result of our business model transition where more new customers are subscribing to our cloud-based offerings rather than purchasing traditional on-premises licenses. While we expect license revenue to decline over time, we do continue to experience quarterly fluctuations.

On a constant currency basis, license revenue was \$3.3 million for the third quarter of fiscal 2020, representing a \$1.2 million, or 27%, decrease from \$4.5 million for the same period last year. On a constant currency basis, license revenue decreased in all our regions during the third quarter of fiscal 2020 when compared to the same period last year. During the third quarter of fiscal 2020, two customers placed license orders totaling more than \$0.3 million and no customers placed orders totaling more than \$1 million. This was consistent with the third quarter of fiscal 2019 in which two customers placed license orders totaling more than \$0.3 million and no customers placed orders totaling more than \$1 million. The majority of our license revenue is generated from our existing customers purchasing additional users and modules.

On a constant currency basis, license revenue was \$11.3 million for the first nine months of fiscal 2020, representing a \$4.7 million, or 29%, decrease from \$16.0 million for the same period last year. On a constant currency basis, license revenue decreased in all our regions during the first nine months of fiscal 2020 when compared to the same period last year. During the first nine months of fiscal 2020, four customers placed license orders totaling more than \$0.3 million and one order exceeded \$1 million. This compared to the first nine months of fiscal 2019 in which seven customers placed license orders totaling more than \$0.3 million and one order exceeded \$1.0 million.

Maintenance and Other Revenue. We offer support services 24 hours a day, seven days a week in addition to providing software upgrades, which include additional or improved functionality, when and if available.

On a constant currency basis, maintenance and other revenue was \$29.7 million for the third quarter of fiscal 2020, representing a \$0.2 million, or 1%, decrease from \$29.9 million for the same period last year. On a constant currency basis, maintenance and other revenue decreased in our North America and Asia Pacific regions, remained flat in our EMEA region and increased in our Latin America region during the third quarter of fiscal 2020 when compared to the same period last year. The decrease in maintenance and other revenue period over period is primarily due to continued conversions of existing customers' on-premises licenses to cloud subscriptions. When customers convert to the cloud they no longer pay for maintenance as those support services are included as a component of the subscription offering. Though we continue to see renewal rates above 90%, conversions from on-premises to cloud have resulted in decreases in maintenance revenue and we expect this trend to continue in the future.

On a constant currency basis, maintenance and other revenue was \$89.2 million for the first nine months of fiscal 2020, representing a \$1.1 million, or 1%, decrease from \$90.3 million for the same period last year. On a constant currency basis, maintenance and other revenue decreased in our North America and Asia Pacific regions, and increased in our EMEA and Latin America regions during the first nine months of fiscal 2020 when compared to the prior year. The decrease in maintenance and other revenue period over period is primarily due to conversions to the cloud, in addition to our historical attrition rates.

Professional Services Revenue. Our professional services business includes technical and application consulting in addition to training, implementations, migrations and upgrades related to our solutions. Although our professional services are optional, our customers use these services when planning, implementing or upgrading our solutions whether in the cloud or on-premises. Professional services revenue growth is contingent upon subscription and license revenue growth and customer upgrade cycles, which are influenced by the strength of general economic and business conditions.

On a constant currency basis, professional services revenue was \$17.5 million for the third quarter of fiscal 2020, representing a \$2.9 million, or 14%, decrease from \$20.4 million for the same period last year. On a constant currency basis, professional services revenue decreased in our North America, EMEA, and Asia Pacific regions and increased in our Latin America region during the third quarter of fiscal 2020 when compared to the same period last year. Prior year professional services revenue includes revenue related to a large, multisite global implementation project that was substantially completed at the end of the fourth quarter of fiscal 2019.

On a constant currency basis, professional services revenue was \$53.2 million for the first nine months of fiscal 2020, representing an \$18.3 million, or 26%, decrease from \$71.5 million for the same period last year. On a constant currency basis, professional services revenue decreased in all regions during the first nine months of fiscal 2020 when compared to the prior year. The decrease primarily related to a reduction in professional services revenue following the completion of a large, multisite global implementation project.

Total Cost of Revenue

	Three Months Ended October 31, 2019	Three Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Cost of revenue						
Cost of subscription	\$ 9,540	\$ 8,686	\$ (875)	\$ 21	\$ (854)	-10%
Cost of license	510	534	23	1	24	4%
Cost of maintenance and other	7,291	7,716	357	68	425	6%
Cost of professional services	16,376	20,425	3,714	335	4,049	20%
Total cost of revenue	<u>\$ 33,717</u>	<u>\$ 37,361</u>	<u>\$ 3,219</u>	<u>\$ 425</u>	<u>\$ 3,644</u>	10%
Percentage of revenue	43%	47%				

	Nine Months Ended October 31, 2019	Nine Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Cost of revenue						
Cost of subscription	\$ 28,860	\$ 25,248	\$ (3,736)	\$ 124	\$ (3,612)	-14%
Cost of license	1,655	1,772	113	4	117	7%
Cost of maintenance and other	22,353	23,355	645	357	1,002	4%
Cost of professional services	53,815	68,489	12,898	1,776	14,674	21%
Total cost of revenue	<u>\$ 106,683</u>	<u>\$ 118,864</u>	<u>\$ 9,920</u>	<u>\$ 2,261</u>	<u>\$ 12,181</u>	10%
Percentage of revenue	46%	47%				

Total cost of revenue consists of cost of subscription, cost of license, cost of maintenance and other and cost of professional services. Cost of subscription includes salaries, benefits, bonuses and other personnel expenses of our cloud operations employees; stock-based compensation for those employees; third-party contractor expense, third-party hosting and hardware costs; royalties; professional fees; travel expense; and an allocation of information technology and facilities costs. Cost of license includes license royalties and amortization of capitalized software costs. Cost of maintenance and other includes salaries, benefits, bonuses and other personnel expenses of our support group, stock-based compensation for those employees, travel expense, professional fees and an allocation of information technology and facilities costs. Cost of professional services includes salaries, benefits, bonuses and other personnel expenses of our services employees, stock-based compensation for those employees, third-party contractor expense, travel expense and an allocation of information technology and facilities costs.

On a constant currency basis, total cost of revenue was \$33.7 million and \$36.9 million for the third quarter of fiscal 2020 and 2019, respectively, and as a percentage of total revenue was 43% and 47% in the third quarter of fiscal 2020 and 2019, respectively. The non-currency related decrease in cost of revenue of \$3.2 million, or 9%, in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to lower professional services third-party contractor costs, lower travel costs and lower salaries and related costs, as a result of a decrease in headcount of 80 people, associated with decreased professional services revenue partially offset by higher hosting costs and salaries and related costs associated with the increase in subscription revenue.

On a constant currency basis, total cost of revenue was \$106.7 million and \$116.6 million for the first nine months of fiscal 2020 and 2019, respectively, and as a percentage of total revenue was 46% and 48% for the first nine months of fiscal 2020 and 2019, respectively. The non-currency related decrease in cost of revenue of \$9.9 million, or 8%, in the first nine months of fiscal 2020 compared to the first nine months of fiscal 2019 was primarily due to lower professional services third-party contractor costs, lower travel costs and lower salaries and related costs, as a result of a decrease in headcount of 80 people, associated with decreased services revenue partially offset by higher hosting costs and salaries and related costs associated with the increase in subscription revenue.

Cost of Subscription. On a constant currency basis, cost of subscription was \$9.5 million for the third quarter of fiscal 2020, representing a \$0.8 million, or 9%, increase from \$8.7 million for the same period last year. The non-currency related increase in cost of subscription of \$0.8 million in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to higher hosting costs of \$0.5 million and higher salaries and related costs of \$0.2 million, as a result of additional headcount of 27 people. Cost of subscription as a percentage of subscription revenue was 35% and 36% in the third quarter of fiscal 2020 and 2019, respectively. We continue to focus on improving our subscription margins over time due to leveraging ongoing economies of scale and implementing operational efficiencies. We have experienced and may experience in the future quarterly fluctuations in our subscription margins as we make investments in our data centers and cloud operations to support future growth. Our strategic investments in cloud growth may not match the timing of revenue increases.

On a constant currency basis, cost of subscription was \$28.9 million for the first nine months of fiscal 2020, representing a \$3.8 million, or 15%, increase from \$25.1 million for the same period last year. The non-currency related increase in cost of subscription of \$3.8 million in the first nine months of fiscal 2020 compared to the first nine months of fiscal 2019 was primarily due to higher hosting costs of \$1.8 million, higher salaries and related costs of \$0.9 million, as a result of additional headcount of 27 people, lower cross-charges to professional services to support conversions and upgrade projects of \$0.4 million, a higher allocation of information technology and facilities costs of \$0.3 million and higher third-party contractor costs of \$0.2 million. Cost of subscription as a percentage of subscription revenue was 37% in the first nine months of both fiscal 2020 and 2019.

Cost of License. On a constant currency basis, cost of license was \$0.5 million for the third quarter of fiscal 2020 and 2019. A majority of cost of license was royalty expense, which as a percent of license revenue, remained relatively consistent year over year.

On a constant currency basis, cost of license was \$1.7 million for the first nine months of fiscal 2020, representing a \$0.1 million, or 6%, decrease from \$1.8 million for the same period last year. A majority of cost of license was royalty expense, which as a percent of license revenue, remained relatively consistent year over year.

Cost of Maintenance and Other. On a constant currency basis, cost of maintenance and other was \$7.3 million for the third quarter of fiscal 2020, representing a \$0.3 million, or 4%, decrease from \$7.6 million for the same period last year. The non-currency related decrease in cost of maintenance and other of \$0.3 million in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to lower salaries and related costs of \$0.2 million. Cost of maintenance and other as a percentage of maintenance and other revenue was 25% in each of the third quarters of fiscal 2020 and 2019.

On a constant currency basis, cost of maintenance and other was \$22.4 million for the first nine months of fiscal 2020, representing a \$0.6 million, or 3%, decrease from \$23.0 million for the same period last year. The non-currency related decrease in cost of maintenance and other of \$0.6 million in the first nine months of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to lower royalties of \$0.3 million and lower salaries and related costs of \$0.2 million. Cost of maintenance and other as a percentage of maintenance and other revenue was 25% in each of the first nine months of fiscal 2020 and 2019.

Cost of Professional Services. On a constant currency basis, cost of professional services was \$16.4 million for the third quarter of fiscal 2020, representing a \$3.7 million, or 18%, decrease from \$20.1 million for the same period last year. The non-currency related decrease in cost of professional services of \$3.7 million in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to lower third-party contractor costs of \$1.2 million, lower travel expense of \$1.1 million, lower salaries and related costs of \$0.7 million, as a result of a decrease in headcount of 80 people, lower cross-charges from other departments to support conversion and upgrade projects of \$0.4 million and lower bonuses of \$0.4 million. Cost of professional services as a percentage of professional services revenues was 94% and 99% for the third quarter of fiscal 2020 and 2019, respectively.

On a constant currency basis, cost of professional services was \$53.8 million for the first nine months of fiscal 2020, representing a \$12.9 million, or 19%, decrease from \$66.7 million for the same period last year. The non-currency related decrease in cost of professional services of \$12.9 million in the first nine months of fiscal 2020 compared to the first nine months of fiscal 2019 was primarily due to lower third-party contractor costs of \$7.0 million, lower travel expense of \$3.2 million, lower cross-charges from other departments to support conversion and upgrade projects of \$1.3 million, lower salaries and related costs of \$1.1 million, as a result of a decrease in headcount of 80 people, and lower bonuses of \$0.9 million partially offset by higher severance of \$0.7 million. Cost of professional services as a percentage of professional services revenues was 101% and 93% for the first nine months of fiscal 2020 and 2019, respectively.

Sales and Marketing

	Three Months Ended October 31, 2019	Three Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Sales and marketing	\$ 19,771	\$ 18,447	\$ (1,540)	\$ 216	\$ (1,324)	-7%
Percentage of revenue	25%	23%				

	Nine Months Ended October 31, 2019	Nine Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Sales and marketing	\$ 60,853	\$ 57,895	\$ (4,006)	\$ 1,048	\$ (2,958)	-5%
Percentage of revenue	26%	24%				

Sales and marketing expense includes salaries, benefits, commissions, bonuses, stock-based compensation, travel expense and other personnel costs of our sales and marketing employees in addition to costs of programs aimed at increasing revenue, such as trade shows, user group events, lead generation, advertising and various sales and promotional programs. Sales and marketing expense also includes sales agent fees and an allocation of information technology and facilities costs.

On a constant currency basis, sales and marketing expense was \$19.8 million for the third quarter of fiscal 2020, representing a \$1.6 million, or 9%, increase from \$18.2 million for the same period last year. The non-currency related increase in sales and marketing expense of \$1.6 million in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to higher salaries and related costs of \$0.6 million, as a result of additional headcount of 12 people, higher severance expense of \$0.5 million, higher sales agent fees of \$0.3 million and a higher allocation of information technology and facilities costs of \$0.2 million partially offset by lower commissions of \$0.4 million. In addition, sales and marketing expense was negatively impacted by lower cost relief of \$0.3 million related to fewer sales and marketing employees working on services engagements than in the prior period. Sales and marketing expenses benefitted \$0.5 million from moving 30 order processing employees to general and administrative expense in the first half of fiscal 2020. If this move did not occur, sales and marketing salaries and related costs would have been \$1.1 million higher than last year as a result of additional headcount of 42 employees.

On a constant currency basis, sales and marketing expense was \$60.9 million for the first nine months of fiscal 2020, representing a \$4.1 million, or 7%, increase from \$56.8 million for the same period last year. The non-currency related increase in sales and marketing expense of \$4.1 million in the first nine months of fiscal 2020 compared to the first nine months of fiscal 2019 was primarily due to higher salaries and related costs of \$1.7 million, as a result of additional headcount of 12 people, higher severance of \$0.8 million, higher sales agent fees of \$0.8 million, a higher allocation of information technology and facilities costs of \$0.6 million, higher recruiting expense of \$0.4 million, higher marketing expense of \$0.2 million and higher systems expense of \$0.2 million partially offset by lower commissions of \$1.1 million, lower professional fees of \$0.2 million and lower bonuses of \$0.2 million. In addition, sales and marketing expense was negatively impacted by lower cost relief of \$0.5 million related to fewer sales and marketing employees working on services engagements than in the prior period. Sales and marketing expenses benefitted \$1.8 million from moving 30 order processing employees to general and administrative expense during the first half of fiscal 2020. If this move did not occur, sales and marketing salaries and related costs would have been \$3.5 million higher than last year as a result of additional headcount of 42 employees.

Research and Development

	Three Months Ended October 31, 2019	Three Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Research and development	\$ 13,622	\$ 13,155	\$ (649)	\$ 182	\$ (467)	-4%
Percentage of revenue	18%	17%				

	Nine Months Ended October 31, 2019	Nine Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Research and development	\$ 41,479	\$ 40,674	\$ (1,631)	\$ 826	\$ (805)	-2%
Percentage of revenue	18%	16%				

Research and development is expensed as incurred and consists primarily of salaries, benefits, bonuses, stock-based compensation, travel expense and other personnel costs for research and development employees in addition to professional services, such as fees paid to software development firms and independent contractors. Research and development expense includes an allocation of information technology and facilities costs, and is reduced by capitalized localization and translation costs.

On a constant currency basis, research and development expense was \$13.6 million for the third quarter of fiscal 2020, representing a \$0.6 million, or 5%, increase from \$13.0 million for the same period last year. The non-currency related increase in research and development expense of \$0.6 million in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to higher salaries and related costs of \$0.2 million and higher severance expense of \$0.2 million.

On a constant currency basis, research and development expense was \$41.5 million for the first nine months of fiscal 2020, representing a \$1.7 million, or 4%, increase from \$39.8 million for the same period last year. The non-currency related increase in research and development expense of \$1.7 million in the first nine months of fiscal 2020 compared to the first nine months of fiscal 2019 was primarily due higher salaries and related costs of \$0.8 million, higher cross-charges from other departments of \$0.4 million and higher third-party contractor costs of \$0.3 million. These higher costs support the development of advanced technologies in the areas of robotic process automation, machine learning and the industrial Internet of Things.

General and Administrative

	Three Months Ended October 31, 2019	Three Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
General and administrative	\$ 9,234	\$ 8,095	\$ (1,209)	\$ 70	\$ (1,139)	-14%
Percentage of revenue	12%	10%				

	Nine Months Ended October 31, 2019	Nine Months Ended October 31, 2018	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
General and administrative	\$ 29,044	\$ 26,823	\$ (2,575)	\$ 354	\$ (2,221)	-8%
Percentage of revenue	13%	11%				

General and administrative expense includes salaries, benefits, bonuses, stock-based compensation, travel expense and other personnel costs related to our finance, human resources, legal and executive personnel. General and administrative expense also includes personnel costs of order processing, professional fees for accounting and legal services, bad debt expense and an allocation of information technology and facilities costs.

On a constant currency basis, general and administrative expense was \$9.2 million for the third quarter of fiscal 2020, representing a \$1.2 million, or 15%, increase from \$8.0 million for the same period last year. The non-currency related increase in general and administrative expense of \$1.2 million in the third quarter of fiscal 2020 compared to the third quarter of fiscal 2019 was primarily due to higher salaries and related costs of \$0.7 million, mainly as a result of moving our order processing employees from sales and marketing expense to general and administrative expense, higher stock compensation expense of \$0.6 million, a higher allocation of information technology and facilities costs of \$0.3 million and higher bonuses of \$0.2 million partially offset by lower professional fees of \$0.4 million.

On a constant currency basis, general and administrative expense was \$29.0 million for the first nine months of fiscal 2020, representing a \$2.5 million, or 9%, increase from \$26.5 million for the same period last year. The non-currency related increase in general and administrative expense of \$2.5 million in the first nine months of fiscal 2020 compared to the first nine months of fiscal 2019 was primarily due to higher salaries and related costs of \$2.2 million, mainly as a result of moving our order processing employees from sales and marketing expense to general and administrative expense, a higher allocation of information technology and facilities costs of \$0.6 million, higher stock compensation expense of \$0.3 million and higher bonuses of \$0.2 million partially offset by lower professional fees of \$0.5 million.

Amortization of Intangibles from Acquisitions

Amortization of intangibles from acquisitions was \$67,000 and \$45,000 in the third quarter of fiscal 2020 and 2019, respectively, and \$200,000 and \$45,000 for the first nine months of fiscal 2020 and 2019, respectively. Amortization expense for all periods was related to intangible assets acquired during fiscal 2019.

Total Other (Income) Expense

	Three Months Ended October 31, 2019	Increase (Decrease) Compared to Prior Period		Three Months Ended October 31, 2018
		\$	%	
<i>(in thousands)</i>				
Other (income) expense				
Interest income	\$ (695)	\$ (49)	-8%	\$ (646)
Interest expense	176	(1)	-1%	177
Other (income) expense, net	386	1,022	161%	(636)
Total other (income) expense, net	<u>\$ (133)</u>	<u>\$ 972</u>	88%	<u>\$ (1,105)</u>
Percentage of revenue	0%			-2%

	Nine Months Ended October 31, 2019	Increase (Decrease) Compared to Prior Period		Nine Months Ended October 31, 2018
		\$	%	
<i>(in thousands)</i>				
Other (income) expense				
Interest income	\$ (2,208)	\$ (295)	-15%	\$ (1,913)
Interest expense	477	(11)	-2%	488
Other (income) expense, net	60	1,369	105%	(1,309)
Total other (income) expense, net	<u>\$ (1,671)</u>	<u>\$ 1,063</u>	39%	<u>\$ (2,734)</u>
Percentage of revenue	-1%			-1%

Total other income, net was \$0.1 million and \$1.1 million for the third quarter of fiscal 2020 and fiscal 2019, respectively. The change in net other (income) expense was primarily related to higher foreign exchange losses of \$0.8 million and the unfavorable change in the fair market value of the interest rate swap associated with the mortgage on our headquarters of \$0.1 million.

Total other income, net was \$1.7 million and \$2.7 million for the first nine months of fiscal 2020 and fiscal 2019, respectively. The change in net other (income) expense was primarily related to higher foreign exchange losses of \$0.8 million and the unfavorable change in the fair market value of the interest rate swap associated with the mortgage on our headquarters of \$0.5 million partially offset by higher interest income of \$0.3 million.

Interest rate swap valuations and foreign exchange gains and losses are subject to changes which are inherently unpredictable. Our interest rate swap is accounted for using mark-to-market accounting. Accordingly, changes in the fair value of the swap each reporting period are adjusted through earnings, subjecting us to non-cash volatility in our results of operations. The swap fixes the interest rate on our mortgage to 4.31% over the entire term of the mortgage and effectively lowered our interest rate from the previous mortgage rate of 6.5%. Although the agreement allows us to prepay the loan and exit the agreement early, we have no intention of doing so. As a result, we will have non-cash adjustments through earnings each reporting period. Over the term of the mortgage, however, the net impact of these mark-to-market adjustments on earnings will be zero.

Income Tax Expense

	Three Months Ended October 31, 2019	Increase Compared to Prior Period		Three Months Ended October 31, 2018
		\$	%	
(in thousands)				
Income tax expense	\$ 1,404	\$ 807	135%	\$ 597
Percentage of revenue	2%			1%
Effective tax rate	92%			17%

	Nine Months Ended October 31, 2019	Increase Compared to Prior Period		Nine Months Ended October 31, 2018
		\$	%	
(in thousands)				
Income tax expense	\$ 11,991	\$ 8,740	269%	\$ 3,251
Percentage of revenue	5%			1%
Effective tax rate	-275%			37%

In determining the quarterly provision for income taxes, we calculated income tax expense based on actual quarterly results in the third quarter of fiscal 2020. In the prior year, we were anticipating a profit for the year and therefore we used an estimated annual tax rate when calculating income tax expense. These results were adjusted for discrete items recorded during the period. Actual quarterly results are being used in fiscal 2020 since they provide a more reliable estimate of quarterly tax expense given that we recorded net losses during the first nine months of fiscal 2020 and we expect a net loss for the full fiscal year.

We recorded income tax expense of \$1.4 million and \$0.6 million in the third quarter of fiscal 2020 and 2019, respectively. Our effective tax rate was 92% for the third quarter of fiscal 2020 compared to 17% for the same period in the prior year. The change in the effective tax rate was primarily due to lower pre-tax income in the third quarter of fiscal 2020 and overall expected losses for the fiscal 2020 year compared to higher pre-tax income in the same period of fiscal 2019 and overall expected profits for the fiscal 2019 year. Additionally, \$0.8 million of tax expense relates to an out-of-period adjustment recorded in the third quarter of fiscal 2020 to correct a valuation allowance initially placed on our Irish Principal's deferred tax assets in the second quarter of fiscal 2020. We concluded that the out-of-period correction is not material to the current or prior quarter condensed consolidated financial statements.

We recorded income tax expense of \$12.0 million and \$3.3 million for the first nine months of fiscal 2020 and 2019, respectively. Our effective tax rate was (275%) compared to 37% for the same period in the prior year. The change in the effective tax rate was primarily due to a valuation allowance that was placed on our Irish Principal's net deferred tax assets and a pre-tax loss for the first nine months of fiscal 2020 compared to pre-tax income for the same period of fiscal 2019. The placement of a valuation allowance resulted in recording \$10.8 million to income tax expense.

Non-GAAP Financial Measures

Regulation S-K Item 10(e), "Use of Non-GAAP Financial Measures in Commission Filings," defines and prescribes the conditions for use of non-GAAP financial information. Our measures of non-GAAP adjusted EBITDA, non-GAAP adjusted EBITDA margins and non-GAAP pre-tax income each meet the definition of a non-GAAP financial measure. We define the non-GAAP measures as follows:

- Non-GAAP adjusted EBITDA - EBITDA is GAAP net income before net interest expense, income tax expense, depreciation and amortization. Non-GAAP adjusted EBITDA is EBITDA less stock-based compensation expense and the change in the fair value of the interest rate swap.
- Non-GAAP adjusted EBITDA margins - Calculated by dividing non-GAAP adjusted EBITDA by total revenue.
- Non-GAAP pre-tax income - GAAP income before income taxes not including the effects of stock-based compensation expense, amortization of purchased intangible assets and the change in fair value of the interest rate swap.

QAD's management uses non-GAAP measures internally to evaluate the business and believes that presenting non-GAAP measures provides useful information to investors regarding the underlying business trends and performance of our ongoing operations as well as useful metrics for monitoring our performance and evaluating it against industry peers. The non-GAAP financial measures presented should be used in addition to, and in conjunction with, results presented in accordance with GAAP, and should not be relied upon to the exclusion of GAAP financial measures. Management strongly encourages investors to review our consolidated financial statements in their entirety and to not rely on any single financial measure in evaluating the company.

QAD non-GAAP measures reflect adjustments based on the following items:

Stock-based compensation expense: We have excluded the effect of stock-based compensation expense from our non-GAAP adjusted EBITDA and non-GAAP pre-tax income calculations. Although stock-based compensation expense is calculated in accordance with current GAAP and constitutes an ongoing and recurring expense, such expense is excluded from non-GAAP results because it is not an expense which generally requires cash settlement by QAD, and therefore is not used by us to assess the profitability of our operations. We also believe the exclusion of stock-based compensation expense provides a more useful comparison of our operating results to the operating results of our peers.

Amortization of purchased intangible assets: We amortize purchased intangible assets in connection with our acquisitions. We have excluded the effect of amortization of purchased intangible assets, which include purchased technology, customer relationships, trade names and other intangible assets, from our non-GAAP pre-tax income calculation, because doing so makes internal comparisons to our historical operating results more consistent. In addition, we believe excluding amortization of purchased intangible assets provides a more useful comparison of our operating results to the operating results of our peers.

Change in fair value of the interest rate swap: We entered into an interest rate swap to mitigate our exposure to the variability of one-month LIBOR for our floating rate debt related to the mortgage of our headquarters. We have excluded the gain/loss adjustments to record the interest rate swap at fair value from our non-GAAP adjusted EBITDA and non-GAAP pre-tax income calculations. We believe that these fluctuations are not indicative of our operational costs or meaningful in evaluating comparative period results because we currently have no intention of exiting the debt agreement early; and therefore over the life of the debt the sum of the fair value adjustments will be zero.

The following table sets forth the reconciliation of the non-GAAP financial measures of adjusted EBITDA, adjusted EBITDA margins and non-GAAP pre-tax income to the most comparable GAAP measures for the three and nine months ended October 31, 2019 and 2018:

	Three Months Ended October 31,		Nine Months Ended October 31,	
	2019	2018	2019	2018
<i>(in thousands)</i>				
Total revenue	\$ 77,807	\$ 79,577	\$ 232,220	\$ 250,310
Net income (loss)	125	2,982	(16,359)	5,492
Add back:				
Net interest expense	(519)	(469)	(1,731)	(1,425)
Depreciation	1,314	1,183	3,917	3,571
Amortization	360	216	934	521
Income tax expense	1,404	597	11,991	3,251
EBITDA	\$ 2,684	\$ 4,509	\$ (1,248)	\$ 11,410
Add back:				
Stock-based compensation expense	2,904	2,148	8,396	7,618
Change in fair value of interest rate swap	101	(46)	352	(198)
Adjusted EBITDA	\$ 5,689	\$ 6,611	\$ 7,500	\$ 18,830
Adjusted EBITDA margin	7%	8%	3%	8%
Non-GAAP pre-tax income reconciliation				
Income (loss) before income taxes	\$ 1,529	\$ 3,579	\$ (4,368)	\$ 8,743
Add back:				
Stock-based compensation expense	4	2,148	8,396	7,618
Amortization of purchased intangible assets	74	52	221	52
Change in fair value of interest rate swap	101	(46)	352	(198)
Non-GAAP income before income taxes	\$ 4,608	\$ 5,733	\$ 4,601	\$ 16,215

LIQUIDITY AND CAPITAL RESOURCES

Our primary source of cash is from the sale of subscriptions, licenses, maintenance and professional services to our customers. Our primary use of cash is payment of our operating expenses which mainly consist of employee-related expenses, such as compensation and benefits, as well as general operating expenses for facilities, third-party hosting providers, third party contractors and other overhead costs. In addition to operating expenses, we may also use cash for capital expenditures; payment of dividends, payment of our mortgage, withholding taxes on settlement of stock-based compensation and stock repurchases; and to invest in our growth initiatives, which may include acquisitions of products, technologies and businesses.

At October 31, 2019, our principal sources of liquidity were cash and equivalents totaling \$133.8 million, and net accounts receivable of \$39.7 million. Our cash and equivalents consisted of current bank accounts, registered money market funds and time delineated deposits. Approximately 84% of our cash and equivalents were held in U.S. dollar denominated accounts as of October 31, 2019.

Our primary commercial banking relationship is with Bank of America and its global affiliates. Our largest cash concentrations are in the United States and Ireland. The percentage of cash and equivalents held outside of the United States was 73% and 74% as of October 31, 2019 and January 31, 2019, respectively. The majority of our cash and equivalents are held in investment accounts which are predominantly placed in money market mutual funds, and in U.S. Treasury and government securities funds. The remaining cash and equivalents are held in deposit accounts and certificates of deposit.

We are a U.S.-based multinational company subject to tax in multiple U.S. and foreign tax jurisdictions. In addition to providing for U.S. income taxes on earnings from the United States, we provide for U.S. income taxes on the earnings of foreign subsidiaries unless the subsidiaries' earnings are considered permanently reinvested outside the United States.

As of the balance sheet date, we intend to permanently reinvest the earnings of our foreign subsidiaries. Should we decide to repatriate these earnings in the future, we would not expect to incur significant additional taxes; however, foreign withholding taxes, currency translation, state taxes and currency control laws must always be considered.

The following table summarizes our cash flows for the nine months ended October 31, 2019 and 2018:

	Nine Months Ended October 31,	
	2019	2018
<i>(in thousands)</i>		
Net cash provided by operating activities	\$ 7,701	\$ 15,117
Net cash used in investing activities	(4,014)	(6,658)
Net cash used in financing activities	(8,148)	(13,160)
Effect of foreign exchange rates on cash and equivalents	(1,137)	(4,242)
Net decrease in cash and equivalents	<u>\$ (5,598)</u>	<u>\$ (8,943)</u>

Typical factors affecting our cash provided by operating activities include our level of revenue and earnings for the period; the timing and amount of employee-related compensation payments, vendor payments and tax payments; and the timing and amount of billings and cash collections from our customers, which is our largest source of operating cash flow. Net cash flows provided by operating activities were \$7.7 million and \$15.1 million for the first nine months of fiscal 2020 and 2019, respectively. The decrease in cash flows from operating activities was due primarily to lower net income of \$21.9 million partially offset by the positive cash flow effect of changes in non-cash items (including net change in valuation allowance, depreciation and amortization, stock-based compensation, change in fair value of interest rate swap and provision for doubtful accounts/sales adjustments) of \$17.9 million.

Net cash used in investing activities included capital expenditures of \$4.3 million and \$3.2 million for the first nine months of fiscal 2020 and 2019, respectively. The increase in capital expenditures primarily relates to leasehold improvements. We continue to monitor our capital spending and do not believe we are delaying critical capital expenditures required to run our business.

Net cash used in financing activities primarily consisted of payments of withholding taxes on the settlement of stock-based compensation and payment of dividends. In the first nine months of fiscal 2020 and 2019, we paid withholding taxes of \$3.6 million and \$8.7 million, respectively, on vested restricted stock units and exercised stock appreciation rights. In the first nine months of fiscal 2020 and 2019, we made dividend payments of \$4.2 million and \$4.1 million, respectively. On a regular basis the Board of Directors evaluates our ability to continue to pay dividends and the structure of potential future dividend payments.

We have historically calculated accounts receivable days' sales outstanding ("DSO"), using the countback, or last-in first-out, method. This method calculates the number of days of billed revenue represented by the accounts receivable balance as of period end. When reviewing the performance of our entities, DSO under the countback method is used by management. It is management's belief that the countback method best reflects the relative health of our accounts receivable as of a given quarter-end or year-end because of the cyclical nature of our billings. Our billing cycle includes high annual maintenance renewal billings at year-end that will not be recognized as earned revenue until future periods.

DSO under the countback method was 45 days and 48 days as of October 31, 2019 and 2018, respectively. DSO using the average method, which is calculated utilizing the accounts receivable balance and earned revenue for the most recent quarter, was 46 days and 53 days at October 31, 2019 and 2018, respectively. The aging of our accounts receivable remained consistent when compared with the same period last year. We believe our reserve methodology is adequate, our reserves are properly stated as of October 31, 2019 and the quality of our receivables remains good.

There have been no material changes in our contractual obligations or commercial commitments outside the ordinary course of business. Cash requirements for items other than normal operating expenses are anticipated for capital expenditures, dividend payments and other equity transactions. We may require cash for acquisitions of new businesses, software products or technologies complementary to our business.

We believe that our cash on hand and net cash provided by operating activities will provide us with sufficient resources to meet our current and long-term working capital requirements, debt service, dividend payments and other cash needs for at least the next twelve months.

Our revenue, earnings, cash flows, receivables, and payables are subject to fluctuations due to changes in foreign currency exchange rates. See Part I, Item 3, “Quantitative and Qualitative Disclosures about Market Risk” for further discussion.

CONTRACTUAL OBLIGATIONS

A summary of future obligations under our various contractual obligations and commitments as of January 31, 2019 was disclosed in our Annual Report on Form 10-K for the year ended January 31, 2019. During the three and nine months ended October 31, 2019 there have been no material changes in our contractual obligations or commercial commitments outside the ordinary course of business.

Notes Payable

Effective May 30, 2012, QAD Ortega Hill, LLC, our wholly owned limited liability company, entered into a variable rate credit agreement (the “2012 Mortgage”) with Mechanics Bank (formerly Rabobank, N.A.), to refinance a pre-existing mortgage. The 2012 Mortgage has an original principal balance of \$16.1 million and bears interest at the one month LIBOR rate plus 2.25%. One month LIBOR was 1.88% at October 31, 2019. The 2012 Mortgage matures in June 2022 and is secured by our headquarters located in Santa Barbara, California. In conjunction with the 2012 Mortgage, QAD Ortega Hill, LLC entered into an interest rate swap with Mechanics Bank. The swap agreement has an initial notional amount of \$16.1 million and a schedule matching that of the underlying loan that synthetically fixes the interest rate on the debt at 4.31% for the entire term of the 2012 Mortgage. The terms of the 2012 Mortgage provide for QAD Ortega Hill, LLC to make net monthly payments of \$88,100 consisting of principal and interest and one final payment of \$11.7 million. The unpaid balance as of October 31, 2019 was \$13.0 million.

ITEM 3 – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Exchange Rates. We have operations in foreign locations around the world and we are exposed to risk resulting from fluctuations in foreign currency exchange rates. We have experienced significant foreign currency fluctuations during fiscal 2019 and the first nine months of fiscal 2020 due primarily to the volatility of the euro in relation to the U.S. dollar. The foreign currencies for which we currently have the most significant exposure are the euro, the Mexican peso and the British pound. Foreign currency exchange rate movements could create a foreign currency gain or loss that could be realized or unrealized for us. Unfavorable movements in foreign currency exchange rates between the U.S. dollar and other foreign currencies may have an adverse impact on our operations. We did not have any foreign currency forward or option contracts or other foreign currency denominated derivatives or other financial instruments open as of October 31, 2019.

We face two risks related to foreign currency exchange rates—translation risk and transaction risk. Translation risk relates to amounts invested in our foreign operations that are translated into U.S. dollars using period-end exchange rates. The resulting translation adjustments are recorded as a component of accumulated other comprehensive loss in the Condensed Consolidated Balance Sheets. Revenues and expenses in foreign currencies translate into higher or lower revenues and expenses in U.S. dollars as the U.S. dollar weakens or strengthens against other currencies. Furthermore, we have exposure to foreign exchange fluctuations arising from the remeasurement of non-functional currency assets, liabilities and intercompany balances into U.S. dollars for financial reporting purposes. Transaction risk is related to our international subsidiaries holding non-local currency net monetary accounts subject to revaluation into their local currency, which results in realized or unrealized foreign currency gains or losses.

For the nine months ended October 31, 2019 and 2018, approximately 50% and 51%, respectively, of our revenue was generated in foreign currencies. We also incurred a significant portion of our expenses in currencies other than the U.S. dollar, approximately 39% and 33% for the nine months ended October 31, 2019 and 2018, respectively. Based on a hypothetical 10% strengthening of the U.S. dollar against all foreign currencies, our revenue would be adversely affected by approximately 5% partially offset by a positive effect on our expenses of approximately 4%, and our operating income would be adversely affected by approximately 34%.

For the nine months ended October 31, 2019 and 2018, foreign currency transaction and remeasurement gains totaled \$0.1 million and \$0.9 million, respectively, and are included in “Other (income) expense, net” in our Condensed Consolidated Statements of Operations and Comprehensive (Loss) Income. We performed a sensitivity analysis on the net U.S. dollar and euro-based monetary accounts subject to revaluation that are held by our international subsidiaries and on the non-functional currency assets, liabilities and intercompany balances that are remeasured into U.S. dollars. A hypothetical 10% adverse movement in all foreign currency exchange rates would result in foreign currency transaction and remeasurement losses of approximately \$2.2 million.

These estimates assume adverse shifts in all foreign currency exchange rates against the U.S. dollar, which do not always move in the same direction or in the same degrees. Actual results may differ materially from the hypothetical analysis.

Interest Rates. We invest our surplus cash in a variety of financial instruments, consisting principally of short-term marketable securities with maturities of less than 90 days at the date of purchase. Our investment securities are held for purposes other than trading. Cash balances held by subsidiaries are invested primarily in registered money market funds with local operating banks. Based on an interest rate sensitivity analysis of our cash and equivalents we estimate that a 10% adverse change in interest rates from the 2019 fiscal year-end rates would not have a material adverse effect on our cash flows or financial condition for the next fiscal year.

Our long-term debt is comprised of a loan agreement, secured by real property, which bears interest at the one month LIBOR rate plus 2.25%. In conjunction with the loan agreement, we entered into an interest rate swap. The swap agreement has an initial notional amount and schedule matching that of the underlying loan that synthetically fixes the interest rate on the debt at 4.31%.

Our interest rate swap is accounted for using mark-to-market accounting. Accordingly, changes in the fair value of the swap each reporting period are adjusted through earnings, subjecting us to non-cash volatility in our results of operations. We prepared a sensitivity analysis using a modeling technique that measures the change in the fair values arising from a hypothetical 10% adverse movement in levels of interest rates across the entire yield curve, with all other variables held constant. Based upon the results of this analysis a 10% adverse change in interest rates from the October 31, 2019 rates would cause less than a \$0.1 million reduction in our results of operations. We believe it is prudent to hedge the expected volatility of the variable rate mortgage on our corporate headquarters. The swap fixes the interest rate on our mortgage to 4.31% over the entire term of the mortgage and effectively lowers our interest rate from the previous mortgage rate of 6.5%. Although the agreement allows us to prepay the loan and exit the agreement early, we have no intention of doing so. As a result, we will have non-cash adjustments through earnings each reporting period. However, over the term of the mortgage, the net impact of these mark-to-market adjustments on earnings will be zero.

ITEM 4 – CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are designed to, and are effective to, provide assurance at a reasonable level that the information required to be disclosed by us in this Quarterly Report on Form 10-Q was recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Changes in internal control over financial reporting. Effective February 1, 2019, we adopted ASU 2016-02 *Leases* (Topic 842), and all related amendments, which resulted in the modification of certain processes and internal controls related to leases. These included the development of new policies and training, ongoing contract review requirements, and gathering of information provided for disclosures. There were no other changes in the Company’s internal control over financial reporting that occurred during the Company’s most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Inherent limitations of internal controls. QAD’s management does not expect that its disclosure controls and procedures or its internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within QAD have been detected. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate.

PART II

ITEM 1. LEGAL PROCEEDINGS

The Company is not party to any material legal proceedings. From time to time, QAD is party, either as plaintiff or defendant, to various legal proceedings and claims which arise in the ordinary course of business. While the outcome of these claims cannot be predicted with certainty, management does not believe that the outcome of any of these legal matters will have a material adverse effect on the Company's consolidated financial position, results of operations or liquidity.

ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors reported in Item 1A within the Company's Annual Report on Form 10-K for the year ended January 31, 2019.

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

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibits

31.1	<u>Certification by the Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
31.2	<u>Certification by the Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
32.1	<u>Certification by the Chief Executive Officer and the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

Signatures

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

QAD Inc.
(Registrant)

Date: December 10, 2019

By: /s/ DANIEL LENDER
Daniel Lender
Executive Vice President, Chief Financial Officer
(Chief Financial Officer)

By: /s/ KARA BELLAMY
Kara Bellamy
Senior Vice President, Corporate Controller
(Chief Accounting Officer)

**CERTIFICATIONS UNDER
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Anton Chilton, certify that:

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

Date: December 10, 2019

/s/ ANTON CHILTON
Anton Chilton
Chief Executive Officer
QAD Inc.

**CERTIFICATIONS UNDER
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Daniel Lender, certify that:

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

Date: December 10, 2019

/s/ DANIEL LENDER

Daniel Lender
Chief Financial Officer
QAD Inc.

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

In connection with the Quarterly Report of QAD Inc. (the "Company") on Form 10-Q for the period ended October 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Anton Chilton, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

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

Date: December 10, 2019

/s/ ANTON CHILTON
Anton Chilton
Chief Executive Officer
QAD Inc.

In connection with the Quarterly Report of QAD Inc. (the "Company") on Form 10-Q for the period ended October 31, 2019 filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Daniel Lender, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

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

Date: December 10, 2019

/s/ DANIEL LENDER
Daniel Lender
Chief Financial Officer
QAD Inc.