

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 **July 31, 2018**

OR

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

For the transition period from _____ to _____

Commission file number **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)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No .

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting 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 (Do not check if a smaller reporting company)

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 August 31, 2018, there were 16,357,168 shares of the Registrant's Class A common stock outstanding and 3,263,906 shares of the Registrant's Class B common stock outstanding.

**QAD INC.
INDEX**

	Page
PART I - FINANCIAL INFORMATION	
ITEM 1. Financial Statements (unaudited)	
Condensed Consolidated Balance Sheets as of July 31, 2018 and January 31, 2018	1
Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) for the Three and Six Months Ended July, 2018 and 2017	2
Condensed Consolidated Statements of Cash Flows for the Six Months Ended July 31, 2018 and 2017	3
Notes to Condensed Consolidated Financial Statements	4
ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	23
ITEM 3. Quantitative and Qualitative Disclosures About Market Risk	38
ITEM 4. Controls and Procedures	39
PART II - OTHER INFORMATION	
ITEM 1. Legal Proceedings	40
ITEM 1A. Risk Factors	40
ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds	40
ITEM 3. Defaults Upon Senior Securities	40
ITEM 4. Mine Safety Disclosure	40
ITEM 5. Other Information	40
ITEM 6. Exhibits	40
SIGNATURES	41

PART I
ITEM 1 – FINANCIAL STATEMENTS
QAD INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)
(unaudited)

	July 31, 2018	January 31, 2018
Assets		
Current assets:		
Cash and equivalents	\$ 139,528	\$ 147,023
Accounts receivable, net of allowances of \$1,949 and \$1,763 at July 31, 2018 and January 31, 2018, respectively	54,258	83,518
Other current assets	21,116	15,856
Total current assets	<u>214,902</u>	<u>246,397</u>
Property and equipment, net	29,741	30,408
Capitalized software costs, net	1,405	990
Goodwill	11,095	11,023
Deferred tax assets, net	11,869	7,944
Other assets, net	10,931	3,055
Total assets	<u>\$ 279,943</u>	<u>\$ 299,817</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Current portion of long-term debt	\$ 476	\$ 466
Accounts payable	10,962	14,818
Deferred revenue	91,195	116,693
Other current liabilities	35,702	43,460
Total current liabilities	<u>138,335</u>	<u>175,437</u>
Long-term debt	13,075	13,313
Other liabilities	4,943	5,439
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value. Authorized shares; none issued or outstanding		
Common stock:		
Class A, \$0.001 par value. Authorized 71,000,000 shares; issued 16,605,215 shares at both July 31, 2018 and January 31, 2018	16	16
Class B, \$0.001 par value. Authorized 4,000,000 shares; issued 3,537,380 shares at both July 31, 2018 and January 31, 2018	4	4
Additional paid-in capital	192,421	200,456
Treasury stock, at cost (528,565 shares and 892,700 shares at July 31, 2018 and January 31, 2018, respectively)	(7,532)	(12,461)
Accumulated deficit	(53,655)	(75,559)
Accumulated other comprehensive loss	(7,664)	(6,828)
Total stockholders' equity	<u>123,590</u>	<u>105,628</u>
Total liabilities and stockholders' equity	<u>\$ 279,943</u>	<u>\$ 299,817</u>

See Accompanying Notes to Condensed Consolidated Financial Statements.

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

	Three Months Ended July 31,		Six Months Ended July 31,	
	2018	2017	2018	2017
Revenue:				
Subscription	\$ 22,439	\$ 17,420	\$ 43,950	\$ 32,763
License	5,561	6,743	11,827	12,008
Maintenance and other	30,574	31,971	62,057	63,877
Professional services	25,969	19,824	52,899	38,692
Total revenue	<u>84,543</u>	<u>75,958</u>	<u>170,733</u>	<u>147,340</u>
Costs of revenue:				
Subscription	8,334	7,428	16,562	15,148
License	574	828	1,238	1,513
Maintenance and other	7,774	7,840	15,639	15,534
Professional services	23,754	20,598	48,064	39,365
Total cost of revenue	<u>40,436</u>	<u>36,694</u>	<u>81,503</u>	<u>71,560</u>
Gross profit	<u>44,107</u>	<u>39,264</u>	<u>89,230</u>	<u>75,780</u>
Operating expenses:				
Sales and marketing	19,502	17,697	39,448	35,284
Research and development	13,513	11,689	27,519	23,221
General and administrative	9,366	9,224	18,728	17,817
Amortization of intangibles from acquisitions	—	111	—	274
Total operating expenses	<u>42,381</u>	<u>38,721</u>	<u>85,695</u>	<u>76,596</u>
Operating income (loss)	1,726	543	3,535	(816)
Other (income) expense:				
Interest income	(743)	(493)	(1,267)	(661)
Interest expense	154	157	311	313
Other (income) expense, net	(269)	1,208	(673)	1,812
Total other (income) expense	<u>(858)</u>	<u>872</u>	<u>(1,629)</u>	<u>1,464</u>
Income (loss) before income taxes	2,584	(329)	5,164	(2,280)
Income tax expense	<u>1,471</u>	<u>832</u>	<u>2,654</u>	<u>1,452</u>
Net income (loss)	<u>\$ 1,113</u>	<u>\$ (1,161)</u>	<u>\$ 2,510</u>	<u>\$ (3,732)</u>
Basic net income (loss) per share				
Class A	\$ 0.06	\$ (0.06)	\$ 0.13	\$ (0.20)
Class B	\$ 0.05	\$ (0.05)	\$ 0.11	\$ (0.17)
Diluted net (loss) income per share				
Class A	\$ 0.05	\$ (0.06)	\$ 0.12	\$ (0.20)
Class B	\$ 0.05	\$ (0.05)	\$ 0.11	\$ (0.17)
Net income (loss)	\$ 1,113	\$ (1,161)	\$ 2,510	\$ (3,732)
Other comprehensive income, net of tax:				
Foreign currency translation adjustment	(326)	1,132	(836)	1,772
Total comprehensive income (loss)	<u>\$ 787</u>	<u>\$ (29)</u>	<u>\$ 1,674</u>	<u>\$ (1,960)</u>

See Accompanying Notes to Condensed Consolidated Financial Statements.

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

	Six Months Ended July 31,	
	2018	2017
Cash flows from operating activities:		
Net income (loss)	\$ 2,510	\$ (3,732)
Adjustments to reconcile net income (loss) loss to net cash provided by operating activities:		
Depreciation and amortization	2,699	2,971
Amortization of costs capitalized to obtain and fulfill contracts	2,051	—
Net change in valuation allowance	4,553	2,957
Other deferred income taxes	(1,649)	(3,209)
Loss on disposal of equipment	4	12
Provision for doubtful accounts and sales adjustments	498	187
Stock compensation expense	5,470	4,360
Change in fair value of derivative instrument	(152)	3
Changes in assets and liabilities:		
Accounts receivable	27,033	28,110
Costs capitalized to obtain and fulfill contracts	(1,692)	—
Other assets	(894)	1,147
Accounts payable	(3,480)	(2,580)
Deferred revenue	(21,683)	(17,987)
Other liabilities	(6,122)	(4,601)
Net cash provided by operating activities	9,146	7,638
Cash flows from investing activities:		
Purchase of property and equipment	(2,004)	(1,571)
Acquisition of business, net of cash acquired	(450)	—
Capitalized software costs	(536)	(480)
Net cash used in investing activities	(2,990)	(2,051)
Cash flows from financing activities:		
Repayments of debt	(234)	(222)
Tax payments related to stock awards	(8,576)	(2,781)
Cash dividends paid	(2,731)	(2,675)
Net cash used in financing activities	(11,541)	(5,678)
Effect of exchange rates on cash and equivalents	(2,110)	4,211
Net (decrease) increase in cash and equivalents	(7,495)	4,120
Cash and equivalents at beginning of period	147,023	145,082
Cash and equivalents at end of period	\$ 139,528	\$ 149,202
Supplemental disclosure of cash flow information:		
Cash paid during the period for:		
Interest	\$ 305	\$ 303
Income taxes, net of refunds	\$ 1,632	\$ 2,030

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, 2018. 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 three and six months ended July 31, 2018 are not necessarily indicative of the results to be expected for the year ending January 31, 2019.

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, 2018 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 critical accounting policies and estimates affect its more significant estimates and judgments used in the preparation of the Company's consolidated financial statements.

Effective February 1, 2018, the Company adopted the requirements of Accounting Standards Update ("ASU") No.2014-09, *Revenue from Contracts with Customers* ("Topic 606") using the modified retrospective method. The Company's updated accounting policy on revenue recognition is described in Note 2 and in "Critical accounting policies" in Item 2 of this Form 10-Q.

Certain prior year amounts have been reclassified for consistency with the current year presentation. Adjustments were made to the operating activities section of the Condensed Consolidated Statements of Cash Flows. These reclassifications had no effect on the reported results of operations and no effect on previously reported cash flows from operating activities.

Recent Accounting Pronouncements

With the exception of those 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 three or six months ended July 31, 2018, that are of significance, or potential significance, to the Company.

Recent Accounting Pronouncements Adopted

In October 2016, the FASB issued ASU 2016-16, *Intra-Entity Transfers of Assets Other Than Inventory*, which removes the prohibition against the immediate recognition of the current and deferred income tax effects of intra-entity transfers other than inventory. The guidance is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2017 with early adoption permitted as of the beginning of the annual reporting period in which the ASU was issued. ASU 2016-16 was adopted by the Company effective February 1, 2018 on a modified retrospective basis, resulting in a \$9.6 million decrease to accumulated deficit and a corresponding increase to deferred tax assets.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments*, that modifies how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The guidance is effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years, with earlier adoption permitted. ASU 2016-15 was adopted by the Company effective February 1, 2018 on a retrospective basis, with no material changes reflected in the Condensed Consolidated Statement of Cash Flows.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606), which supersedes the revenue recognition requirements in *Revenue Recognition* (Topic 605) and Subtopic 985-605 *Software - Revenue Recognition*. Topic 605 and Subtopic 985-605 are collectively referred to as "Topic 605" or "prior GAAP." Under Topic 606, revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, Topic 606 requires enhanced disclosures, including disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

The Company adopted Topic 606 on the first day of fiscal 2019 using the modified retrospective transition method. Under this method, QAD evaluated contracts that were in effect at the beginning of fiscal 2019 as if those contracts had been accounted for under Topic 606. The Company did not evaluate individual modifications for those periods prior to the adoption date, but the aggregate effect of all modifications as of the adoption date and such effects are provided below. Under the modified retrospective transition method, periods prior to the adoption date were not adjusted and continue to be reported in accordance with historical, pre-Topic 606 accounting. A cumulative catch-up adjustment was recorded to beginning accumulated deficit to reflect the impact of all existing arrangements under Topic 606.

The most significant impacts of the adoption of Topic 606 were as follows:

- Removal of vendor specific objective evidence (“VSOE”) under prior GAAP resulted in earlier recognition of license and services revenues in those instances where the Company sold a multi-element deal where services did not have VSOE. At adoption, QAD decreased accumulated deficit and deferred revenue by \$2.0 million as this revenue would otherwise have been recognized in future periods according to prior GAAP;
- Removal of the limitation on contingent revenue resulted in revenue being recognized earlier for certain contracts. At adoption, QAD decreased accumulated deficit and increased contract assets by \$0.8 million as this revenue would otherwise have been recognized in future periods as invoiced according to prior GAAP;
- Contracts containing a future option to the customer represented a material right which resulted in deferral of revenue. At adoption, QAD increased accumulated deficit and deferred revenue by \$0.3 million as this revenue would have been otherwise earned in previous periods according to prior GAAP;
- Commission expenses related to new cloud and maintenance contracts are no longer expensed as incurred; rather these incremental commission costs and other associated fringe benefits are capitalized and amortized over the associated term of economic benefit which the Company has determined to be five years. As a result, QAD decreased accumulated deficit and increased other current and non-current assets by \$9.1 million at the adoption date;
- Sales agent fees to obtain new cloud and maintenance contracts are no longer be expensed as incurred; rather these costs will be capitalized and amortized over the associated term of economic benefit which the Company has determined to be five years. As a result, QAD decreased accumulated deficit and increased other current and non-current assets by \$1.0 million at the adoption date; and
- Cloud environment setup costs incurred to fulfill new cloud customer contracts are no longer expensed as incurred; rather these costs are capitalized and amortized over the associated term of economic benefit which the Company has determined to be five years. As a result, QAD decreased accumulated deficit and increased other current and non-current assets by \$1.5 million at the adoption date.

The tax impact of the above adjustments was assessed and, at adoption, QAD increased accumulated deficit and decreased net deferred tax assets by \$1.6 million.

Adjustments to beginning consolidated balance sheet accounts

The following table presents the cumulative effect adjustments, net of income tax effects, to beginning consolidated balance sheet accounts for the new accounting standards adopted by the Company on the first day of fiscal 2019:

	<u>Jan. 31, 2018</u>	<u>Topic 606</u>	<u>ASU2016-16 (1)</u>	<u>Feb. 1, 2018</u>
	(in thousands)			
Assets				
Current assets:				
Cash and equivalents	\$ 147,023	\$ -	\$ -	\$ 147,023
Accounts receivable, net	83,518	-	-	83,518
Other current assets	15,856	4,013	-	19,869
Total current assets	246,397	4,013	-	250,410
Property and equipment, net	30,408	-	-	30,408
Capitalized software costs, net	990	-	-	990
Goodwill	11,023	-	-	11,023
Deferred tax assets, net	7,944	(1,643)	9,584	15,885
Other assets, net	3,055	8,421	-	11,476
Total assets	<u>\$ 299,817</u>	<u>\$ 10,791</u>	<u>\$ 9,584</u>	<u>\$ 320,192</u>
Liabilities and stockholders' equity				
Current portion of long-term debt	\$ 466	\$ -	\$ -	\$ 466
Accounts payable	14,818	-	-	14,818
Deferred revenue	116,693	(1,239)	-	115,454
Other current liabilities	43,460	-	-	43,460
Total current liabilities	175,437	(1,239)	-	174,198
Long-term debt	13,313	-	-	13,313
Other liabilities	5,439	(511)	-	4,928
Stockholders' equity				
Common stock - Class A	16	-	-	16
Common stock - Class B	4	-	-	4
Additional paid-in capital	200,456	-	-	200,456
Treasury stock	(12,461)	-	-	(12,461)
Accumulated deficit	(75,559)	12,541	9,584	(53,434)
Accumulated other comprehensive loss	(6,828)	-	-	(6,828)
Total stockholders' equity	105,628	12,541	9,584	127,753
Total liabilities and stockholders' equity	<u>\$ 299,817</u>	<u>\$ 10,791</u>	<u>\$ 9,584</u>	<u>\$ 320,192</u>

(1) For further information about the adoption of *Income taxes (Topic 740): Intra-entity Transfers of Assets Other Than Inventory* see Note 9 "Income Taxes."

The following table summarizes the effects of adopting Topic 606 on the Company's Condensed Consolidated Balance Sheet as of July 31, 2018:

	As reported under Topic 606	Adjustments (in thousands)	Balances under Prior GAAP
Assets			
Current assets:			
Cash and equivalents	\$ 139,528	\$ -	\$ 139,528
Accounts receivable, net	54,258	-	54,258
Other current assets	21,116	(4,194)	16,922
Total current assets	<u>214,902</u>	<u>(4,194)</u>	<u>210,708</u>
Property and equipment, net	29,741	-	29,741
Capitalized software costs, net	1,405	-	1,405
Goodwill	11,095	-	11,095
Deferred tax assets, net	11,869	1,047	12,916
Other assets, net	10,931	(7,697)	3,234
Total assets	<u>\$ 279,943</u>	<u>\$ (10,844)</u>	<u>\$ 269,099</u>
Liabilities and stockholders' equity			
Current portion of long-term debt	\$ 476	\$ -	\$ 476
Accounts payable	10,962	-	10,962
Deferred revenue	91,195	3,034	94,229
Other current liabilities	35,702	-	35,702
Total current liabilities	<u>138,335</u>	<u>3,034</u>	<u>141,369</u>
Long-term debt	13,075	-	13,075
Other liabilities	4,943	868	5,811
Stockholders' equity			
Common stock - Class A	16	-	16
Common stock - Class B	4	-	4
Additional paid-in capital	192,421	-	192,421
Treasury stock	(7,532)	-	(7,532)
Accumulated deficit	(53,655)	(14,750)	(68,405)
Accumulated other comprehensive loss	(7,664)	4	(7,660)
Total stockholders' equity	<u>123,590</u>	<u>(14,746)</u>	<u>108,844</u>
Total liabilities and stockholders' equity	<u>\$ 279,943</u>	<u>\$ (10,844)</u>	<u>\$ 269,099</u>

The following table summarizes the effects of adopting Topic 606 on the Company's Condensed Consolidated Statement of Income for the three months ended July 31, 2018:

	As reported under Topic 606	Adjustments	Balances under Prior GAAP
(in thousands, except per share amounts)			
Revenue			
Subscription fees	\$ 22,439	\$ (251)	\$ 22,188
License fees	5,561	(216)	5,345
Maintenance and other	30,574	40	30,614
Professional services	25,969	904	26,873
Total revenue	<u>84,543</u>	<u>477</u>	<u>85,020</u>
Cost of revenue:			
Subscription fees	8,334	4	8,338
License fees	574	-	574
Maintenance and other	7,774	-	7,774
Professional services	23,754	-	23,754
Total cost of revenue	<u>40,436</u>	<u>4</u>	<u>40,440</u>
Gross profit	<u>44,107</u>	<u>473</u>	<u>44,580</u>
Operating expenses:			
Sales and marketing	19,502	(22)	19,480
Research and development	13,513	(59)	13,454
General and administrative	9,366	-	9,366
Total operating expenses	<u>42,381</u>	<u>(81)</u>	<u>42,300</u>
Operating income	1,726	554	2,280
Other (income) expense			
Interest income	(743)	-	(743)
Interest expense	154	-	154
Other income	(269)	-	(269)
Total other income, net	<u>(858)</u>	<u>-</u>	<u>(858)</u>
Income before income taxes	2,584	554	3,138
Income tax expense	1,471	112	1,583
Net income	<u>\$ 1,113</u>	<u>\$ 442</u>	<u>\$ 1,555</u>
Basic income per share			
Class A	\$ 0.06	\$ 0.02	\$ 0.08
Class B	\$ 0.05	\$ 0.02	\$ 0.07
Diluted income per share			
Class A	\$ 0.05	\$ 0.02	\$ 0.07
Class B	\$ 0.05	\$ 0.02	\$ 0.07

The following table summarizes the effects of adopting Topic 606 on the Company's Condensed Consolidated Statement of Income for the six months ended July 31, 2018:

	As reported under Topic 606	Adjustments	Balances under Prior GAAP
(in thousands, except per share amounts)			
Revenue			
Subscription fees	\$ 43,950	\$ (557)	\$ 43,393
License fees	11,827	(1,386)	10,441
Maintenance and other	62,057	113	62,170
Professional services	52,899	(846)	52,053
Total revenue	<u>170,733</u>	<u>(2,676)</u>	<u>168,057</u>
Cost of revenue:			
Subscription fees	16,562	14	16,576
License fees	1,238	-	1,238
Maintenance and other	15,639	-	15,639
Professional services	48,064	-	48,064
Total cost of revenue	<u>81,503</u>	<u>14</u>	<u>81,517</u>
Gross profit	<u>89,230</u>	<u>(2,690)</u>	<u>86,540</u>
Operating expenses:			
Sales and marketing	39,448	(284)	39,164
Research and development	27,519	(118)	27,401
General and administrative	18,728	-	18,728
Total operating expenses	<u>85,695</u>	<u>(402)</u>	<u>85,293</u>
Operating income	3,535	(2,288)	1,247
Other (income) expense			
Interest income	(1,267)	-	(1,267)
Interest expense	311	-	311
Other income	(673)	-	(673)
Total other income, net	<u>(1,629)</u>	<u>-</u>	<u>(1,629)</u>
Income before income taxes	5,164	(2,288)	2,876
Income tax expense	2,654	(79)	2,575
Net income	<u>\$ 2,510</u>	<u>\$ (2,209)</u>	<u>\$ 301</u>
Basic income (loss) per share			
Class A	\$ 0.13	\$ (0.12)	\$ 0.01
Class B	\$ 0.11	\$ (0.10)	\$ 0.01
Diluted income (loss) per share			
Class A	\$ 0.12	\$ (0.11)	\$ 0.01
Class B	\$ 0.11	\$ (0.10)	\$ 0.01

The following table summarizes the effects of adopting Topic 606 on the financial statement line items of the Company's Condensed Consolidated Statement of Cash Flows for the six months ended July 31, 2018:

	As reported under Topic 606	Adjustments (in thousands)		Balances under Prior GAAP
Net income (loss)	\$ 2,510	\$	(2,209)	\$ 301
Amortization of costs capitalized to obtain and fulfill contracts	2,051		(1,636)	415
Net change in valuation allowance	4,553		648	5,201
Changes in operating assets and liabilities:				
Costs capitalized to obtain and fulfill contracts	(1,692)		1,366	(326)
Other assets	(894)		(325)	(1,219)
Deferred revenue	(21,683)		2,152	(19,531)
Net cash provided by operating activities	9,146		(4)	9,142
Effect of exchange rates on cash and equivalents	(2,110)		4	(2,106)

Recent Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. ASU 2016-02 requires companies to generally recognize on the balance sheet operating and financing lease liabilities and corresponding right-of-use assets. ASU 2016-02 is effective for the Company in its first quarter of fiscal 2020 on a modified retrospective basis and earlier adoption is permitted. The Company is currently evaluating the impact of the pending adoption of ASU 2016-02 on its consolidated financial statements and expects that most of its operating lease commitments will be subject to the new standard and recognized as operating lease liabilities and right-of-use assets upon adoption of ASU 2016-02.

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. The amendments 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.

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, we satisfy a performance obligation.

The Company records the amount of revenue and related costs by considering whether the entity is a principal (gross presentation) or an agent (net presentation) by evaluating the nature of its promise to the customer. 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 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 standalone 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.

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 when they acquire new software licenses. In addition, a majority of customers renew their support services 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		Six Months Ended	
	July 31,		July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
North America	\$ 39,288	\$ 35,156	\$ 79,313	\$ 68,526
EMEA	26,906	22,227	51,993	43,108
Asia Pacific	12,866	12,967	25,425	25,133
Latin America	5,483	5,608	14,002	10,573
Total revenue	<u>\$ 84,543</u>	<u>\$ 75,958</u>	<u>\$ 170,733</u>	<u>\$ 147,340</u>

The Company's revenue by industry is as follows:

	Three Months Ended		Six Months Ended	
	July 31,		July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
Automotive	\$ 34,663	\$ 28,864	\$ 71,725	\$ 55,276
Consumer products and food and beverage	13,527	11,394	27,317	22,815
High technology and industrial products	25,363	24,306	50,358	47,148
Life sciences	10,990	11,394	21,333	22,101
Total revenue	<u>\$ 84,543</u>	<u>\$ 75,958</u>	<u>\$ 170,733</u>	<u>\$ 147,340</u>

Significant Judgments

More judgments and estimates are required under Topic 606 than were required under Topic 605. 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.

Judgment is required to determine the SSP for each distinct performance obligation. The Company rarely licenses or sells products on a stand-alone basis, so the Company is required to estimate the range of SSPs for each 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.

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 significant 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.

If a contract includes variable consideration, the Company exercises judgment in estimating the amount of consideration to which the entity will be entitled in exchange for transferring the promised goods or services to a customer. When estimating variable consideration, the Company will consider all relevant facts and circumstances. Variable consideration will be estimated and included in the contract price only when it is probable that a significant reversal in the amount of revenue recognized will not occur.

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 July 31, 2018. 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:

	As of	
	July 31, 2018	Feb. 1, 2018
	(In thousands)	
Contract assets, short-term	\$ 1,372	\$ 890
Contract assets, long-term	-	110
Total contract assets	<u>\$ 1,372</u>	<u>\$ 1,000</u>
Deferred revenue, short-term	\$ 91,195	\$ 115,454
Deferred revenue, long-term	1,054	1,644
Total deferred revenue	<u>\$ 92,249</u>	<u>\$ 117,098</u>

During the three and six months ended July 31, 2018, the Company recognized \$49.7 million and \$99.9 million of revenue, respectively, that was included in the deferred revenue balance, as adjusted for Topic 606, 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 \$238.1 million as of July 31, 2018, of which the Company expects to recognize approximately \$146.2 million of the revenue over the next 12 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 support fees in advance on a quarterly or annual basis, with payment due at the start of the subscription or support 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:

	As of	
	July 31, 2018	January 31, 2018
	(in thousands)	
Deferred maintenance	\$ 61,650	\$ 80,811
Deferred subscription	27,821	31,034
Deferred professional services	1,589	3,523
Deferred license	96	756
Deferred other revenue	39	569
Deferred revenues, current	91,195	116,693
Deferred revenues, non-current (in Other liabilities)	1,054	2,156
Total deferred revenues	<u>\$ 92,249</u>	<u>\$ 118,849</u>

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 practical expedients the Company applied in the adoption and application of Topic 606:

Application

- 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 Income (Loss).
- The Company also used the practical expedient to calculate 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).

Modified Retrospective Transition Adjustments

- For contract modifications, the Company reflected the aggregate effect of all modifications that occurred prior to the adoption date when identifying the satisfied and unsatisfied performance obligations, determining the transaction price and allocating the transaction price to satisfied and unsatisfied performance obligations for the modified contract at transition.

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. Incremental costs related to renewals are expensed as incurred because the term of economic benefit is one year or less. 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 July 31, 2018 and January 31, 2018, the Company had \$10.6 million and \$10.1 million, respectively, of deferred commissions and sales agent fees. For the three and six months ended July 31, 2018, \$0.9 million and \$1.8 million, respectively, of amortization expense related to deferred commissions and sales agent fees was recorded in sales and marketing expense in the Company's Condensed Consolidated Statement of Operations and Comprehensive Income (Loss).

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 July 31, 2018 and January 31, 2018 the Company had deferred setup costs of \$1.6 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 six months ended July 31, 2018, \$0.1 million and \$0.3 million, respectively, of amortization expense related to deferred setup costs was recorded in cost of subscription in the Company's Condensed Consolidated Statement of Operations and Comprehensive Income (Loss).

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 three or six months ended July 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 July 31,		Six Months Ended July 31,	
	2018	2017	2018	2017
	(in thousands, except per share data)		(in thousands, except per share data)	
Net income (loss)	\$ 1,113	\$ (1,161)	\$ 2,510	\$ (3,732)
Less: Dividends declared	(1,372)	(1,344)	(2,731)	(2,675)
Undistributed net loss	<u>\$ (259)</u>	<u>\$ (2,505)</u>	<u>\$ (221)</u>	<u>\$ (6,407)</u>
Net income (loss) per share – Class A Common Stock				
Dividends declared	\$ 1,176	\$ 1,151	\$ 2,340	\$ 2,290
Allocation of undistributed net loss	(222)	(2,145)	(190)	(5,483)
Net income (loss) attributable to Class A common stock	<u>\$ 954</u>	<u>\$ (994)</u>	<u>\$ 2,150</u>	<u>\$ (3,193)</u>
Weighted average shares of Class A common stock outstanding— <i>basic</i>	16,266	15,914	16,173	15,863
Weighted average potential shares of Class A common stock	1,661	—	1,713	—
Weighted average shares of Class A common stock and potential common shares outstanding— <i>diluted</i>	<u>17,927</u>	<u>15,914</u>	<u>17,886</u>	<u>15,863</u>
Basic net income (loss) per Class A common share	<u>\$ 0.06</u>	<u>\$ (0.06)</u>	<u>\$ 0.13</u>	<u>\$ (0.20)</u>
Diluted net income (loss) per Class A common share	<u>\$ 0.05</u>	<u>\$ (0.06)</u>	<u>\$ 0.12</u>	<u>\$ (0.20)</u>
Net income (loss) per share – Class B Common Stock				
Dividends declared	\$ 196	\$ 193	\$ 391	\$ 385
Allocation of undistributed net loss	(37)	(360)	(31)	(924)
Net income (loss) attributable to Class B common stock	<u>\$ 159</u>	<u>\$ (167)</u>	<u>\$ 360</u>	<u>\$ (539)</u>
Weighted average shares of Class B common stock outstanding— <i>basic</i>	3,263	3,212	3,248	3,211
Weighted average potential shares of Class B common stock	171	—	177	—
Weighted average shares of Class B common stock and potential common shares outstanding— <i>diluted</i>	<u>3,434</u>	<u>3,212</u>	<u>3,425</u>	<u>3,211</u>
Basic net income (loss) per Class B common share	<u>\$ 0.05</u>	<u>\$ (0.05)</u>	<u>\$ 0.11</u>	<u>\$ (0.17)</u>
Diluted net income (loss) per Class B common share	<u>\$ 0.05</u>	<u>\$ (0.05)</u>	<u>\$ 0.11</u>	<u>\$ (0.17)</u>

Potential common shares consist of the shares issuable upon the release of restricted stock units (“RSUs”) and the exercise of stock options and stock appreciation rights (“SARs”). The Company’s unvested RSUs 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		Six Months Ended	
	July 31,		July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
Class A	351	3,219	179	3,129
Class B	—	384	—	387

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.

The following table sets forth the financial assets, measured at fair value, as of July 31, 2018 and January 31, 2018:

	Quoted Prices in	Significant Other	Significant
	Active Markets		
	for	(Level 2)	Inputs
	Identical Assets	(in thousands)	(Level 3)
	(Level 1)		
Money market mutual funds as of July 31, 2018 ^(a)	\$ 107,131		
Money market mutual funds as of January 31, 2018 ^(a)	\$ 115,416		
Asset related to the interest rate swap as of July 31, 2018 ^(b)		\$ 339	
Asset related to the interest rate swap as of January 31, 2018 ^(b)		\$ 187	

(a) Money market mutual funds are recorded at fair value based upon quoted market prices.

(b) The asset 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.

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 unchanged at \$32 million as of July 31, 2018 and January 31, 2018.

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 measurement levels during the six months ended July 31, 2018.

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 6 “Debt” within these Notes to Condensed Consolidated Financial Statements. The fair value of the interest rate swap is reflected as a liability in the Condensed Consolidated Balance Sheets and the change in fair value is reported in “Other (income) expense” in the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). 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 July 31, 2018 and January 31, 2018 were as follows (in thousands):

	Balance Sheet	Asset	
		Fair Value	
		July 31,	January 31,
	Location	2018	2018
Derivative instrument:			
Interest rate swap	Other assets, net	\$ 339	\$ 187
Total		\$ 339	\$ 187

The change in fair value of the interest rate swap recognized in the Condensed Consolidated Statements of Operations and Comprehensive Income (Loss) was \$35,000 and \$152,000 for the three and six months ended July 31, 2018 and \$(16,000) and \$(3,000) for the three and six months ended July 31, 2017.

5. CAPITALIZED SOFTWARE COSTS

Capitalized software costs and accumulated amortization at July 31, 2018 and January 31, 2018 were as follows:

	<u>July 31, 2018</u>	<u>January 31, 2018</u>
	(in thousands)	
Capitalized software costs:		
Capitalized software development costs	\$ 1,787	\$ 1,516
Acquired software technology	135	-
	<u>1,922</u>	<u>1,516</u>
Less accumulated amortization	(517)	(526)
Capitalized software costs, net	<u>\$ 1,405</u>	<u>\$ 990</u>

The Company's capitalized software development costs relate to translations and localizations of QAD Enterprise 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 six months of fiscal 2019, approximately \$0.3 million of costs and accumulated amortization were removed from the balance sheet.

Amortization of capitalized software costs was \$0.1 million and \$0.3 million for the three and six months ended July 31, 2018 and \$0.2 million and \$0.4 million for the three and six months ended July 31 2017. Amortization of capitalized software costs is included in "Cost of license" in the accompanying Condensed Consolidated Statements of Operations and Comprehensive Income (Loss).

The following table summarizes the estimated amortization expense relating to the Company's capitalized software costs as of July 31, 2018:

Fiscal Years	(in thousands)
2019 remaining	\$ 312
2020	580
2021	395
2022	78
Thereafter	40
	<u>\$ 1,405</u>

6. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in the carrying amount of goodwill for the six months ended July 31, 2018 were as follows:

	<u>Gross Carrying Amount</u>	<u>Accumulated Impairment</u>	<u>Goodwill, Net</u>
	(in thousands)		
Balance at January 31, 2018	\$ 26,631	\$ (15,608)	\$ 11,023
Additions	243	-	243
Impact of foreign currency translation	(171)	-	(171)
Balance at July 31, 2018	<u>\$ 26,703</u>	<u>\$ (15,608)</u>	<u>\$ 11,095</u>

Additions to goodwill relate to an immaterial acquisition that occurred during the second quarter of fiscal 2019 due to the excess purchase price over the estimated fair value of acquired net assets. Pro forma financial information for the acquisition has not been presented, as the effects were not material to the Company's historical consolidated financial statements.

The Company performed its annual goodwill impairment review during the fourth quarter of fiscal 2018. The analysis compared the Company's market capitalization to its net assets as of the test date, November 30, 2017. As the market capitalization significantly exceeded the Company's net assets, there was no indication of goodwill impairment for fiscal 2018. The Company monitors the indicators for goodwill impairment testing between annual tests. No adverse events occurred during the six months ended July 31, 2018 that would cause the Company to test goodwill for impairment.

Intangible Assets

	July 31, 2018
	(in thousands)
Amortizable intangible assets	
Customer relationships	\$ 190
Less: accumulated amortization	-
Net amortizable intangible assets	<u>\$ 190</u>

The Company's intangible assets as of July 31, 2018 are related to the acquisition completed in the second quarter of fiscal 2019. Intangible assets are included in "Other assets, net" in the accompanying Condensed Consolidated Balance Sheets.

The following table summarizes the estimated amortization expense relating to the Company's intangible assets as of July 31, 2018:

Fiscal Years	(in thousands)
2019 remaining	\$ 19
2020	38
2021	38
2022	38
Thereafter	57
	<u>\$ 190</u>

7. DEBT

	July 31, 2018	January 31, 2018
	(in thousands)	
Note payable	\$ 13,591	\$ 13,825
Less current maturities	(476)	(466)
Less loan origination costs, net	(40)	(46)
Long-term debt	<u>\$ 13,075</u>	<u>\$ 13,313</u>

Note Payable

Effective May 30, 2012, QAD Ortega Hill, LLC, wholly owned by the Company, entered into a variable rate credit agreement (the "2012 Mortgage") with 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 2.08% at July 31, 2018. 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 Rabobank, N.A. 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 July 31, 2018 was \$13.6 million.

8. 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, 2018	\$ (6,828)
Other comprehensive income before reclassifications	(836)
Amounts reclassified from accumulated other comprehensive loss	-
Net current period other comprehensive income	(836)
Balance as of July 31, 2018	<u>\$ (7,664)</u>

During the first six months of fiscal 2018 there were no reclassifications from accumulated other comprehensive loss.

9. INCOME TAXES

In determining the provision for income taxes for the first six months of fiscal 2019, the Company calculated income tax expense based on the estimated annual tax rate for the year, compared to the prior year when the Company calculated income tax expense based on actual quarterly results. The annual effective tax rate was adjusted for discrete items recorded during both periods. The estimated annual tax rate for the year was used in the current period since the Company is forecasting profits for the full fiscal year 2019.

The Company recorded income tax expense of \$1.5 million and \$0.8 million in the second quarter of fiscal 2019 and 2018, respectively. The Company's effective tax rate increased to 57% during the second quarter of fiscal 2019 compared to (253%) for the same period in the prior year. The increase in the effective tax rate is primarily due to the forecasted profits and pretax book income in the second quarter of fiscal 2019 compared to the pretax book loss for the same period of fiscal 2018.

The Company recorded income tax expense of \$2.7 million and \$1.5 million for the first six months of fiscal 2019 and 2018, respectively. The Company's effective tax rate increased to 51% from (64%) for the same period in the prior year. The increase in the effective tax rate is primarily due to forecasted profits and pretax book income for the first six months of fiscal 2019 compared to the pretax book loss for the same period of fiscal 2018.

When calculating income tax expense for the first six months of fiscal 2019, the Company considered the U.S. Tax Cuts and Jobs Act ("Tax Act") enacted December 22, 2017. The Tax Act imposed a deemed repatriation tax on accumulated earnings of foreign subsidiaries, reduced the U.S. corporate tax rate to 21% and introduced a new tax on global intangible low taxed income ("GILTI"). Based on current available information and technical guidance, the Company maintained its provisional estimate of the fiscal 2018 deemed repatriation tax of \$10.0 million. This additional income tax expense was partially offset by net operating losses and tax credits. The Tax Act increased the Company's fiscal 2018 U.S. estimated tax liability by \$2.0 million. This estimate may be impacted by further analysis and future clarification and guidance regarding available tax accounting methods and elections, earnings and profits computations and state tax conformity to federal tax changes. The Company elected to pay the estimated repatriation tax liability over a period of eight years as permitted by the Tax Act. The Company has not yet completed the accounting for the fiscal 2018 effects of the Tax Act because of the complexity and ambiguity of certain of its tax and accounting effects. The Company expects to refine and complete the accounting for the Tax Act during the remainder of fiscal 2019 as it obtains, prepares and analyzes additional information in accordance with Staff Accounting Bulletin No. 118.

The Company included a provision for GILTI in the Company's tax expense for the first six months of fiscal 2019. Cash taxes were slightly impacted by GILTI since the Company has sufficient tax credits to offset the additional liability. The GILTI provisions had a slight impact the Company's effective tax rate since QAD's U.S. deferred tax assets are fully valued. The Company has not recorded deferred taxes related to these GILTI provisions and has not yet determined its policy election with respect to whether it will treat GILTI as a current-period expense when incurred (the "period cost method") or factor such amount into the measurement of deferred taxes (the "deferred method"). This decision will be made by year end as the GILTI guidance is issued.

The Company adopted ASU 2016-16 *Income taxes (Topic 740) Intra-entity Transfers of Assets Other Than Inventory* during the three months ended April 30, 2018, which required all income tax effects of intra-entity transfers of assets other than inventory to be recognized in the Condensed Consolidated Statement of Operations and Comprehensive Income (Loss) when the transfer occurs. As a result of the adoption, the Company recorded \$9.6 million to accumulated deficit and deferred tax asset at February 1, 2018 to account for the intra-entity sale of Intellectual Property that occurred in the fiscal year 2018.

The gross amount of unrecognized tax benefits was \$1.8 million at July 31, 2018, including interest and penalties. The unrecognized tax benefits were reduced by \$0.9 million with an accompanying reduction of deferred tax assets, as a result of the netting required under ASU 2013-11. 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 July 31, 2018, the Company has accrued approximately \$0.3 million of interest and penalty expense relating to unrecognized tax benefits.

The Company reviews its net deferred tax assets by jurisdiction on a quarterly basis to determine whether a valuation allowance is necessary based on the more-likely-than-not standard. Management assesses historic, current and future financial projections by jurisdiction to draw its conclusion. During fiscal 2017, a valuation allowance for U.S. federal and state deferred tax assets was established. For the quarter ended July 31, 2018, the Company continues to maintain a full valuation allowance on its U.S. federal and state deferred tax assets. At July 31, 2018 and January 31, 2018, the valuation allowance attributable to deferred tax assets was \$36.4 million and \$33.7 million, respectively.

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, 2013, 2014
- Netherlands for fiscal year ended January 31, 2016
- Germany for fiscal years ended January 31, 2015, 2016, 2017

During fiscal 2019, the Company closed the following audits with no adjustment:

- Iowa for fiscal year ended January 31, 2014
- Kentucky for fiscal year ended January 31, 2016

10. STOCKHOLDERS' EQUITY

Dividends

The following table sets forth the dividends that were declared by the Company during the first six months of fiscal 2019:

Declaration Date	Record Date	Payable	Dividend Class A	Dividend Class B	(in thousands)
6/11/2018	6/25/2018	7/6/2018	\$ 0.072	\$ 0.06	1,372
4/10/2018	4/24/2018	5/1/2018	\$ 0.072	\$ 0.06	1,359

11. STOCK-BASED COMPENSATION

The Company's equity awards consist of RSUs and SARs. For a description of the Company's stock-based compensation plans, see Note 5 "Stock-Based Compensation" in Notes to Consolidated Financial Statements included in the Annual Report on Form 10-K for the year ended January 31, 2018.

Stock-Based Compensation

The following table sets forth reported stock-based compensation expense for the three and six months ended July 31, 2018 and 2017:

	Three Months Ended July 31,		Six Months Ended July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
Cost of subscription	\$ 68	\$ 36	\$ 117	\$ 61
Cost of maintenance and other revenue	118	95	210	172
Cost of professional services	327	274	553	494
Sales and marketing	534	368	936	685
Research and development	413	304	728	557
General and administrative	1,904	1,515	2,926	2,391
Total stock-based compensation expense	\$ 3,364	\$ 2,592	\$ 5,470	\$ 4,360

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 six months ended July 31, 2018:

	RSUs (in thousands)	Weighted Average Grant Date Fair Value
Outstanding at January 31, 2018	653	\$ 25.10
Granted	270	52.72
Released ⁽¹⁾	(252)	25.56
Forfeited	(13)	25.13
Outstanding at July 31, 2018	<u>658</u>	<u>\$ 36.22</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 July 31, 2018, the Company withheld 75,000 shares for payment of these taxes at a value of \$4.0 million. During the six months ended July 31, 2018, the Company withheld 79,000 shares for payment of these taxes at a value of \$4.2 million.

Total unrecognized compensation cost related to RSUs was approximately \$22.5 million as of July 31, 2018. This cost is expected to be recognized over a weighted-average period of approximately 3.2 years.

SAR Information

The weighted average assumptions used to value SARs granted in the six months ended July 31, 2018 and 2017 are shown in the following table:

	Six Months Ended July 31,	
	2018	2017
Expected life in years ⁽¹⁾	5.50	5.50
Risk free interest rate ⁽²⁾	2.80%	1.82%
Volatility ⁽³⁾	31%	33%
Dividend rate ⁽⁴⁾	0.54%	0.91%

(1) The expected life of SARs granted under the stock-based compensation plans is based on historical vested SAR exercise and post-vest forfeiture patterns and includes an estimate of the expected term for SARs that were fully vested and outstanding.

(2) The risk-free interest rate is based on the U.S. Treasury yield for a term consistent with the expected life of SARs in effect at the time of grant.

(3) The Company estimates the volatility of its common stock at the date of grant based on the historical volatility of the Company's common stock for a period equivalent to the expected life of the SARs, which it believes is representative of the expected volatility over the expected life of the SARs.

(4) The Company expects to continue paying quarterly dividends at the same rate as the six months ending on July 31, 2018.

The following table summarizes the activity for outstanding SARs for the six months ended July 31, 2018:

	SARs (in thousands)	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 31, 2018	3,024	\$ 17.78		
Granted	380	53.50		
Exercised	(384)	9.39		
Expired	(5)	8.97		
Forfeited	(1)	19.40		
Outstanding at July 31, 2018	<u>3,014</u>	\$ 23.37	4.5	\$ 77,830
Vested and exercisable at July 31, 2018	<u><u>2,064</u></u>	\$ 17.02	3.4	\$ 64,899

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 July 31, 2018, and the exercise price for in-the-money SARs) that would have been received by the holders if all SARs had been exercised on July 31, 2018. The total intrinsic value of SARs exercised in the six months ended July 31, 2018 was \$12.2 million. The weighted average grant date fair value per share of SARs granted in the three and six months ended July 31, 2018 was \$16.99. The weighted average grant date fair value per share of SARs granted in the three and six months ended July 31, 2017 was \$9.59.

The number of SARs exercised includes shares withheld on behalf of employees to satisfy minimum statutory tax withholding requirements. During the three months ended July 31, 2018, the Company withheld 10,000 shares for payment of these taxes at a value of \$0.5 million. During the six months ended July 31, 2018, the Company withheld 103,000 shares for payment of these taxes at a value of \$4.4 million.

At July 31, 2018, there was approximately \$10.5 million of total unrecognized compensation cost related to unvested SARs. This cost is expected to be recognized over a weighted-average period of approximately 3.2 years.

12. 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.

13. 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 Australia. 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 Principal 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		Six Months Ended	
	July 31,		July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
Revenue:				
North America ⁽¹⁾	\$ 39,288	\$ 35,156	\$ 79,313	\$ 68,526
EMEA	26,906	22,227	51,993	43,108
Asia Pacific	12,866	12,967	25,425	25,133
Latin America	5,483	5,608	14,002	10,573
	<u>\$ 84,543</u>	<u>\$ 75,958</u>	<u>\$ 170,733</u>	<u>\$ 147,340</u>

(1) Sales into Canada accounted for 1% and 2% of North America total revenue in the three and six months ended July 31, 2018 and for 1% of North America total revenue in the three and six months ended July 31, 2017.

14. SUBSEQUENT EVENT

Subsequent to the end of the fiscal 2019 second quarter, the Company announced the establishment of a wholly-owned Indonesian subsidiary. The Company's Indonesian subsidiary acquired the assets of its distributor, PT Iris, a 40-person business consulting group supporting local and multinational companies in Indonesia and the ASEAN region on August 31, 2018. The Company does not expect a material impact to fiscal 2019 operating results and deems the acquisition immaterial.

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, 2018. 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, 2018, 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, 2018. There have been no significant changes to our accounting policies and estimates as discussed in our Annual Report on Form 10-K for the first six months of fiscal 2019 except as noted below.

Revenue. We offer our 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, we provide access to our software on a hosted basis as a service and customers generally do not have the contractual right to take possession of the software.

We generate revenue through sales of licenses and maintenance provided to our on-premises customers and through subscriptions of our cloud-based software. We offer professional services to both our on-premises and cloud customers to assist them with the design, testing and implementation of our software.

We determine 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, we satisfy a performance obligation.

We record the amount of revenue and related costs by considering whether the entity is a principal (gross presentation) or an agent (net presentation) by evaluating the nature of our promise to the customer. 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 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. We identify and track the performance obligations at contract inception so that we can monitor and account for the performance obligations over the life of the contract.

Our 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. Our 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 standalone selling price ("SSP") for any distinct good or service, we may be required to allocate the contract's transaction price to each performance obligation using our 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.

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. We generally invoice our 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. Our typical payment terms tend to vary by region but our 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. Our customers purchase both product support and license updates when they acquire new software licenses. In addition, a majority of customers renew their support services 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. We recognize 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

We execute arrangements through indirect sales channels via sales agents and distributors who are authorized to market our software products to end users. In arrangements with sales agents, QAD contracts directly with the customer and the sales agents are compensated on a commission basis. Distributor arrangements are those in which the resellers are authorized to market and distribute our software products to end users in specified territories and the distributor bears the risk of collection from the end user customer. We recognize 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 us from the distributor). We do not offer rights of return, product rotation or price protection to any of our distributors.

Disaggregated Revenue

We disaggregate revenue from contracts with customers by geography and by the customers' industry within manufacturing, as we believe it best depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

Our revenue by geography is as follows:

	Three Months Ended		Six Months Ended	
	July 31,		July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
North America	\$ 39,288	\$ 35,156	\$ 79,313	\$ 68,526
EMEA	26,906	22,227	51,993	43,108
Asia Pacific	12,866	12,967	25,425	25,133
Latin America	5,483	5,608	14,002	10,573
Total revenue	<u>\$ 84,543</u>	<u>\$ 75,958</u>	<u>\$ 170,733</u>	<u>\$ 147,340</u>

Our revenue by industry is as follows:

	Three Months Ended		Six Months Ended	
	July 31,		July 31,	
	2018	2017	2018	2017
	(in thousands)		(in thousands)	
Automotive	\$ 34,663	\$ 28,864	\$ 71,725	\$ 55,276
Consumer products and food and beverage	13,527	11,394	27,317	22,815
High technology and industrial products	25,363	24,306	50,358	47,148
Life sciences	10,990	11,394	21,333	22,101
Total revenue	<u>\$ 84,543</u>	<u>\$ 75,958</u>	<u>\$ 170,733</u>	<u>\$ 147,340</u>

Significant Judgments

More judgments and estimates are required under Topic 606 than were required under Topic 605. Due to the complexity of certain contracts, the actual revenue recognition treatment required under Topic 606 for our arrangements may be dependent on contract-specific terms and may vary in some instances.

Judgment is required to determine the SSP for each distinct performance obligation. We rarely license or sell products on a stand-alone basis, so we are required to estimate the range of SSPs for each performance obligation. In instances where SSP is not directly observable because we do not sell the license, product or service separately, we determine the SSP using information that may include market conditions and other observable inputs. In making these judgments, we analyze various factors, including our 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.

Revenue is recognized over time for our subscription, maintenance and fixed fee professional services that are separate performance obligations. For our 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. We exercise significant judgment to evaluate the relevant facts and circumstances in determining whether agreements should be accounted for separately or as a single arrangement. Our 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.

If a contract includes variable consideration, we exercise judgment in estimating the amount of consideration to which the entity will be entitled in exchange for transferring the promised goods or services to a customer. When estimating variable considerations, we will consider all relevant facts and circumstances. Variable consideration will be estimated and included in the contract price only when it is probable that a significant reversal in the amount of revenue recognized will not occur.

Practical Expedients and Exemptions

There are several practical expedients and exemptions allowed under Topic 606 that impact timing of revenue recognition and our disclosures. Below is a list of practical expedients we applied in the adoption and application of Topic 606:

Application

- We do 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.
- We generally expense 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 Income (Loss).
- We also used the practical expedient to calculate contract acquisition costs based on a portfolio of contracts with similar characteristics instead of a contract by contract analysis.
- We do not disclose the value of unsatisfied performance obligations for contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed (apply to time-and-material engagements).

Modified Retrospective Transition Adjustments

- For contract modifications, we reflected the aggregate effect of all modifications that occurred prior to the adoption date when identifying the satisfied and unsatisfied performance obligations, determining the transaction price and allocating the transaction price to satisfied and unsatisfied performance obligations for the modified contract at transition.

Costs to Obtain and Fulfill a Contract

Our 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 we have determined to be five years. These deferred costs are classified as current or non-current based on the timing of when we expect to recognize the expense. Incremental costs related to renewals are expensed as incurred because the term of economic benefit is one year or less. The current and non-current portions of deferred commissions are included in other current assets and other long-term assets, respectively, in our Condensed Consolidated Balance Sheets.

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. These costs are amortized over the term of economic benefit which we have determined to be five years.

Recoverability of these costs is subject to various business risks. Quarterly, we compare 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 six months ended July 31, 2018.

BUSINESS OVERVIEW

QAD (“QAD”, the “Company”, “we” or “us”) is a leading provider of flexible, cloud-based and on-premises enterprise software and services for global manufacturing companies. QAD Enterprise 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. Since 1979, QAD solutions have supported customers in the automotive, consumer products, food and beverage, high technology, industrial manufacturing and life sciences industries to better align operations with their strategic goals to become Effective Enterprises.

We have four principal sources of revenue:

- Subscription of Enterprise Applications through our cloud offering in a Software as a Service (“SaaS”) model as well as other hosted applications;
- License purchases of Enterprise Applications;
- Maintenance and support, including technical support, training materials, product enhancements and upgrades;
- 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 half of fiscal 2019, approximately 47% of our total revenue was generated in North America, 30% in EMEA, 15% in Asia Pacific and 8% in Latin America. The majority of our revenue is generated from global customers who have operations in multiple countries throughout the world. Subscription, license and maintenance revenues are generally assigned to the region where a majority of the end users are located. Professional services revenue is assigned based on the region where the services are delivered. 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 July 31, 2018, we employed approximately 1,900 employees worldwide, of which 650 employees were based in North America, 600 employees in EMEA, 540 employees in Asia Pacific and 110 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 2018 and the first six months of fiscal 2019, we closed most of our new customer deals in the cloud. In addition, we converted many of our existing customers from on-premises licenses to our cloud-based solution. Recurring revenue, which we define as subscription revenue plus maintenance revenue, grew 10% from the prior year, and accounted for 62% of total revenue for the first six months of fiscal 2019, compared to 65% one year ago. The decline as a percentage of total revenue was due to the large increase in professional services revenue in the first six months of fiscal 2019, which grew by 37% compared to the same period last year. We expect recurring revenue to remain a high percent of total revenue as our subscription revenue continues to grow.

RESULTS OF OPERATIONS

We operate in several geographical regions as described in Note 13 “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 July 31, 2018	Three Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Revenue						
Subscription	\$ 22,439	\$ 17,420	\$ 4,998	\$ 21	\$ 5,019	29%
Percentage of total revenue	27%	23%				
License	5,561	6,743	(1,225)	43	(1,182)	-18%
Percentage of total revenue	6%	9%				
Maintenance and other	30,574	31,971	(1,694)	297	(1,397)	-4%
Percentage of total revenue	36%	42%				
Professional services	25,969	19,824	6,079	66	6,145	31%
Percentage of total revenue	31%	26%				
Total revenue	<u>\$ 84,543</u>	<u>\$ 75,958</u>	<u>\$ 8,158</u>	<u>\$ 427</u>	<u>\$ 8,585</u>	11%

	Six Months Ended July 31, 2018	Six Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Revenue						
Subscription	\$ 43,950	\$ 32,763	\$ 10,663	\$ 524	\$ 11,187	34%
Percentage of total revenue	26%	22%				
License	11,827	12,008	(481)	300	(181)	-2%
Percentage of total revenue	7%	8%				
Maintenance and other	62,057	63,877	(3,815)	1,995	(1,820)	-3%
Percentage of total revenue	36%	43%				
Professional services	52,899	38,692	13,152	1,055	14,207	37%
Percentage of total revenue	31%	27%				
Total revenue	<u>\$ 170,733</u>	<u>\$ 147,340</u>	<u>\$ 19,519</u>	<u>\$ 3,874</u>	<u>\$ 23,393</u>	16%

Total Revenue. On a constant currency basis, total revenue was \$84.5 million for the second quarter of fiscal 2019, representing an \$8.1 million, or 11%, increase from \$76.4 million for the same period last year. When comparing categories within total revenue at constant rates, our results for the second quarter of fiscal 2019 included increases in subscription and professional services partially offset by decreases in license and maintenance and other. Revenue outside the North America region as a percentage of total revenue was 53% and 54% for the second quarter of fiscal 2019 and 2018, respectively. On a constant currency basis, total revenue increased in our North America, EMEA and Latin America regions and decreased in our Asia Pacific region during the second quarter of fiscal 2019 when compared to the prior year.

On a constant currency basis, total revenue was \$170.7 million for the first six months of fiscal 2019, representing a \$19.5 million, or 13%, increase from \$151.2 million for the same period last year. Total revenue in the first six months of fiscal 2019 included \$2.7 million of additional revenue recognized in accordance with new revenue recognition rules under Topic 606 compared to applying the historical revenue recognition rules under Topic 605. For additional explanation of the revenue recognition differences between Topic 606 and Topic 605, refer to the Recent Accounting Pronouncements section of Note 1 in the Notes to Condensed Consolidated Financial Statements of this Form 10-Q. When comparing categories within total revenue at constant rates, our results for the first six months of fiscal 2019 included increases in subscription and professional services partially offset by decreases in license and maintenance and other. Revenue outside the North America region as a percentage of total revenue was 53% for the first six months of both fiscal 2019 and 2018. On a constant currency basis, total revenue increased across all regions during the first six months of fiscal 2018 when compared to 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 six months ended July 31, 2018 and 2017:

	Three months ended July 31,		Six months ended July 31,	
	2018	2017	2018	2017
Automotive	41%	38%	42%	37%
Consumer products and food and beverage	16%	15%	16%	16%
High technology and industrial products	30%	32%	29%	32%
Life sciences	13%	15%	13%	15%
Total revenue	100%	100%	100%	100%

Subscription Revenue. Subscription revenue consists of recurring fees from customers to access our products via the cloud and other subscription offerings. Subscription revenue is billed on a quarterly or annual basis and recognized ratably over the term of the agreement, typically 12 to 60 months. On a constant currency basis, subscription revenue was \$22.4 million for the second quarter of fiscal 2019, representing a \$5.0 million, or 29%, increase from \$17.4 million for the same period last year. On a constant currency basis, subscription revenue increased across all regions during the second quarter of fiscal 2019 when compared to the prior year. In the second quarter of fiscal 2019 we closed eleven cloud deals, including six new cloud customers and five conversions from existing customers who previously purchased on-premises licenses. This compared to the second quarter of fiscal 2018 when we closed eleven cloud deals, including eight new cloud customers and three conversions from existing customers who previously purchased on-premises licenses. Subscription revenue consists of new customer sites; existing Enterprise Applications users converting from on-premises; and additional users and modules purchased by our existing cloud customers.

On a constant currency basis, subscription revenue was \$44.0 million for the first six months of fiscal 2019, representing a \$10.7 million, or 32%, increase from \$33.3 million for the same period last year. On a constant currency basis, subscription revenue increased across all regions during the first six months of fiscal 2019 when compared to the prior year. In the first six months of fiscal 2019 we closed 29 cloud deals, including 19 new cloud customers and ten conversions from existing customers who previously purchased on-premises licenses. This compared to the first six months of fiscal 2018 when we closed 28 cloud deals, including 18 new cloud customers and ten 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 during 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 this calculation. Our subscription customer retention rate is in excess of 90%.

The following table presents subscription revenue by region for the three and six months ended July 31, 2018 and 2017:

	Three months ended July 31,		Six months ended July 31,	
	2018	2017	2018	2017
North America	55%	57%	56%	56%
EMEA	27%	22%	26%	22%
Asia Pacific	13%	14%	13%	14%
Latin America	5%	7%	5%	8%
Total cloud revenue	100%	100%	100%	100%

The following table presents subscription revenue by industry for the three and six months ended July 31, 2018 and 2017:

	Three months ended July 31,		Six months ended July 31,	
	2018	2017	2018	2017
Automotive	33%	35%	34%	36%
Consumer products and food and beverage	18%	12%	18%	13%
High technology and industrial products	24%	25%	24%	23%
Life sciences	25%	28%	24%	28%
Total cloud revenue	100%	100%	100%	100%

License Revenue. License revenue is derived from software license fees that customers pay for our core product, QAD Enterprise Applications, and any add-on modules they purchase. On a constant currency basis, license revenue was \$5.6 million for the second quarter of fiscal 2019, representing a \$1.2 million, or 18%, decrease from \$6.8 million for the same period last year. On a constant currency basis, license revenue decreased in our North America, Latin America and Asia Pacific regions and increased in our EMEA region during the second quarter of fiscal 2019 when compared to the same period last year. One of the metrics that management uses to measure license revenue performance is the number of customers that have placed sizable license orders in the period. During the second quarter of fiscal 2019, two customers placed license orders totaling more than \$0.3 million and no orders exceeded \$1.0 million. This compared to fiscal 2018 in which five customers placed license orders totaling more than \$0.3 million and no orders exceeded \$1.0 million. The majority of our license revenue has come from additional users and from modules purchased by our existing customers. We anticipate that license revenue will decrease as more new customers subscribe to our cloud-based products and more existing customers elect to subscribe to QAD products in the cloud instead of purchasing licenses.

On a constant currency basis, license revenue was \$11.8 million for the first six months of fiscal 2019, representing a \$0.5 million, or 4%, decrease from \$12.3 million for the same period last year. On a constant currency basis, license revenue decreased in our North America, EMEA and Asia Pacific regions and increased in our Latin America region during the first six months of fiscal 2019 when compared to the same period last year. During the first six months of fiscal 2019, five customers placed license orders totaling more than \$0.3 million and one order exceeded \$1.0 million. This compared to the first six months of fiscal 2018 in which six customers placed license orders totaling more than \$0.3 million and no orders 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 \$30.6 million for the second quarter of fiscal 2019, representing a \$1.7 million, or 5%, decrease from \$32.3 million for the same period last year. On a constant currency basis, maintenance and other revenue decreased in all regions during the second quarter of fiscal 2019 when compared to the prior year. The decrease in maintenance and other revenue period over period is primarily due to continued conversions of existing customers' perpetual licenses to a cloud subscription, in addition to our historical attrition rates. 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 \$62.1 million for the first six months of fiscal 2019, representing a \$3.8 million, or 6%, decrease from \$65.9 million for the same period last year. On a constant currency basis, maintenance and other revenue decreased in all regions during the first six months of fiscal 2019 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.

Our maintenance retention rate has remained in excess of 90% for the second quarter and first six months of fiscal 2019.

Professional Services Revenue. Our professional services business includes technical and application consulting and training, implementations, migrations and upgrades related to our solutions. On a constant currency basis, professional services revenue was \$26.0 million for the second quarter of fiscal 2019, representing a \$6.1 million, or 31%, increase from \$19.9 million for the same period last year. On a constant currency basis, professional services revenue increased in all regions during the second quarter of fiscal 2019 when compared to the prior year. The increase in professional services revenue period over period can be attributed to a higher number of engagements and a higher amount of professional services revenue per customer. New cloud implementations and existing customer upgrade projects continue to generate demand for our professional services. In addition, we also provided personnel augmentation services to one of our cloud customers, mainly through third-party contractors at low margins. We expect professional services revenue will decrease from its current level when the augmentation services are completed, which we currently expect to finish in the third quarter.

On a constant currency basis, professional services revenue was \$52.9 million for the first six months of fiscal 2019, representing a \$13.2 million, or 33%, increase from \$39.7 million for the same period last year. On a constant currency basis, professional services revenue increased in all regions during the first six months of fiscal 2019 when compared to the prior year. The increase in professional services revenue period over period can be attributed to a higher number of engagements and a higher amount of professional services revenue per customer. In addition, we also provided personnel augmentation services to one of our cloud customers, mainly through third-party contractors at low margins.

Total Cost of Revenue

	Three Months Ended July 31, 2018	Three Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Cost of revenue						
Cost of subscription	\$ 8,334	\$ 7,428	\$ (910)	\$ 4	\$ (906)	-12%
Cost of license	574	828	254	—	254	31%
Cost of maintenance and other	7,774	7,840	62	4	66	-1%
Cost of professional services	23,754	20,598	(3,055)	(101)	(3,156)	-15%
Total cost of revenue	\$ 40,436	\$ 36,694	\$ (3,649)	\$ (93)	\$ (3,742)	-10%
Percentage of revenue	48%	48%				

	Six Months Ended July 31, 2018	Six Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Cost of revenue						
Cost of subscription	\$ 16,562	\$ 15,148	\$ (1,326)	\$ (88)	\$ (1,414)	-9%
Cost of license	1,238	1,513	275	—	275	18%
Cost of maintenance and other	15,639	15,534	90	(195)	(105)	-1%
Cost of professional services	48,064	39,365	(7,569)	(1,130)	(8,699)	-22%
Total cost of revenue	\$ 81,503	\$ 71,560	\$ (8,530)	\$ (1,413)	\$ (9,943)	-14%
Percentage of revenue	48%	49%				

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

Total Cost of Revenue. On a constant currency basis, total cost of revenue was \$40.4 million and \$36.8 million for the second quarter of fiscal 2019 and 2018, respectively, and as a percentage of total revenue was 48% in each of the second quarters of fiscal 2019 and 2018. The non-currency related increase in cost of revenue of \$3.6 million, or 10%, in the second quarter of fiscal 2019 compared to the second quarter of fiscal 2018 was primarily due to higher professional third-party contractor, travel and personnel costs associated with increased services revenue and higher hosting costs associated with the growth of our cloud business.

On a constant currency basis, total cost of revenue was \$81.5 million and \$73.0 million for the first six months of fiscal 2019 and 2018, respectively, and as a percentage of total revenue was 48% for the first six months of both fiscal 2019 and 2018, respectively. The non-currency related increase in cost of revenue of \$8.5 million, or 12%, in the first six months of fiscal 2019 compared to the first six months of fiscal 2018 was primarily due to higher professional services personnel, travel and third-party contractor costs associated with increased services revenue and higher hosting costs associated with the growth of our cloud business.

Cost of Subscription. On a constant currency basis, cost of subscription was \$8.3 million for the second quarter of fiscal 2019, representing a \$0.9 million, or 12%, increase from \$7.4 million for the same period last year. The non-currency related increase in cost of subscription of \$0.9 million in the second quarter of fiscal 2019 compared to the second quarter of fiscal 2018 was primarily due to higher hosting costs of \$0.9 million. Cost of subscription as a percentage of subscription revenue was 37% and 43% in the second quarter of fiscal 2019 and 2018, respectively. Subscription margins improved due to achieving greater economies of scale as we increased revenue as well as improved automation of some processes in our cloud operations department. We expect to continue to improve our subscription margins over time as we leverage ongoing economies of scale and operational efficiencies, but we also anticipate 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 \$16.6 million for the first six months of fiscal 2019, representing a \$1.4 million, or 9%, increase from \$15.2 million for the same period last year. The non-currency related increase in cost of subscription of \$1.4 million in the first six months of fiscal 2019 compared to the first six months of fiscal 2018 was primarily due to higher hosting costs of \$1.6 million partially offset by \$0.2 million of personnel costs cross charged to our services department to support conversion and upgrade projects. Cost of subscription as a percentage of subscription revenue was 38% and 46% in the first six months of fiscal 2019 and 2018, respectively.

Cost of License. On a constant currency basis, cost of license was \$0.6 million for the second quarter of fiscal 2019, representing a \$0.2 million, or 25%, decrease from \$0.8 million for the same period last year. Cost of license as a percentage of license revenue was 10% and 12% for the second quarters of fiscal 2019 and 2018, respectively.

On a constant currency basis, cost of license was \$1.2 million for the first six months of fiscal 2019, representing a \$0.3 million, or 20%, decrease from \$1.5 million for the same period last year. Cost of license as a percentage of license revenue was 10% and 13% for the first six months of fiscal 2019 and 2018, respectively.

Cost of Maintenance and Other. On a constant currency basis, cost of maintenance and other was \$7.8 million for the second quarter of both fiscal 2019 and 2018. Expense categories within cost of maintenance and other were relatively consistent for the second quarter of fiscal 2019 compared to the same period last year. Cost of maintenance and other as a percentage of maintenance and other revenue was 25% in the second quarter of both fiscal 2019 and 2018.

On a constant currency basis, cost of maintenance and other was \$15.6 million for the first six months of fiscal 2019, representing a \$0.1 million, or 1%, decrease from \$15.7 million for the same period last year. Expense categories within cost of maintenance and other were relatively consistent for the first six months of fiscal 2019 compared to the same period last year. Cost of maintenance and other as a percentage of maintenance and other revenue was 25% and 24% in the first six months of fiscal 2019 and 2018, respectively.

Cost of Professional Services. On a constant currency basis, cost of professional services was \$23.8 million for the second quarter of fiscal 2019, representing a \$3.1 million, or 15%, increase from \$20.7 million for the same period last year. The non-currency related increase in cost of professional services of \$3.1 million in the second quarter of fiscal 2019 compared to the second quarter of fiscal 2018 was primarily due to higher third-party contractor costs of \$1.6 million, higher travel expense of \$0.7 million and higher salaries and related costs of \$0.5 million, as a result of additional headcount of ten people. Cost of professional services as a percentage of professional services revenues was 91% and 104% for the second quarter of fiscal 2019 and 2018, respectively. Our professional services margin has gradually improved as the additional resources hired in fiscal 2018 have become utilized.

On a constant currency basis, cost of professional services was \$48.1 million for the first six months of fiscal 2019, representing a \$7.6 million, or 19%, increase from \$40.5 million for the same period last year. The non-currency related increase in cost of professional services of \$7.6 million in the first six months of fiscal 2019 compared to the first six months of fiscal 2018 was primarily due to higher third-party contractor costs of \$3.6 million, higher travel expense of \$1.7 million, higher salaries and related costs of \$1.7 million, as a result of additional headcount of ten people and higher cross-charges from other departments to support conversion and upgrade projects of \$0.4 million. Cost of professional services as a percentage of professional services revenues was 91% and 102% for the first six months of fiscal 2019 and 2018, respectively.

Sales and Marketing

	Three Months Ended July 31, 2018	Three Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Sales and marketing	\$ 19,502	\$ 17,697	\$ (1,658)	\$ (147)	\$ (1,805)	-10%
Percentage of revenue	23%	24%				

	Six Months Ended July 31, 2018	Six Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Sales and marketing	\$ 39,448	\$ 35,284	\$ (3,228)	\$ (936)	\$ (4,164)	-12%
Percentage of revenue	23%	24%				

Sales and marketing expense includes salaries, benefits, commissions, bonuses, stock-based compensation and travel expense for 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 personnel costs of order processing, sales agent fees and an allocation of information technology and facilities costs.

On a constant currency basis, sales and marketing expense was \$19.5 million for the second quarter of fiscal 2019, representing a \$1.7 million, or 10%, increase from \$17.8 million for the same period last year. The non-currency related increase in sales and marketing expense of \$1.7 million in the second quarter of fiscal 2019 compared to the second quarter of fiscal 2018 was primarily due to higher salaries and related costs of \$1.1 million, as a result of additional headcount of 18 people, and higher bonuses of \$0.7 million. In fiscal 2019 we made some changes to the structure of our sales force, which increased the total size of the group by about 10%.

On a constant currency basis, sales and marketing expense was \$39.4 million for the first six months of fiscal 2019, representing a \$3.2 million, or 9%, increase from \$36.2 million for the same period last year. The non-currency related increase in sales and marketing expense of \$3.2 million in the first six months of fiscal 2019 compared to the first six months of fiscal 2018 was primarily due to higher salaries and related costs of \$1.9 million, as a result of additional headcount of 18 people, higher bonuses of \$0.8 million and higher severance of \$0.4 million.

Research and Development

	Three Months Ended July 31, 2018	Three Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Research and development	\$ 13,513	\$ 11,689	\$ (1,718)	\$ (106)	\$ (1,824)	-16%
Percentage of revenue	16%	15%				
	Six Months Ended July 31, 2018	Six Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
Research and development	\$ 27,519	\$ 23,221	\$ (3,738)	\$ (560)	\$ (4,298)	-19%
Percentage of revenue	16%	16%				

Research and development is expensed as incurred and consists primarily of salaries, benefits, bonuses, stock-based compensation, training and travel expense for research and development employees and professional services, such as fees paid to software development firms and independent contractors. Research and development expense also 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 \$13.5 million for the second quarter of fiscal 2019, representing a \$1.7 million, or 14%, increase from \$11.8 million for the same period last year. The non-currency related increase in research and development expense of \$1.7 million in the second quarter of fiscal 2019 compared to the second quarter of fiscal 2018 was primarily due to higher salaries and related costs of \$0.7 million, as a result of additional headcount of 18 people, higher third-party contractor costs of \$0.5 million and higher information technology and facilities allocated costs of \$0.2 million.

On a constant currency basis, research and development expense was \$27.5 million for the first six months of fiscal 2019, representing a \$3.7 million, or 16%, increase from \$23.8 million for the same period last year. The non-currency related increase in research and development expense of \$3.7 million in the first six months of fiscal 2019 compared to the first six months of fiscal 2018 was primarily due to higher salaries and related costs of \$1.6 million, as a result of additional headcount of 18 people, higher third-party contractor costs of \$1.2 million, higher information technology and facilities allocated costs of \$0.3 million, higher stock compensation expense of \$0.2 million and higher travel expense of \$0.2 million.

General and Administrative

	Three Months Ended July 31, 2018	Three Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
General and administrative	\$ 9,366	\$ 9,224	\$ (92)	\$ (50)	\$ (142)	-2%
Percentage of revenue	11%	12%				
	Six Months Ended July 31, 2018	Six Months Ended July 31, 2017	Change in Constant Currency	Change due to Currency Fluctuations	Total Change as Reported \$	%
<i>(in thousands)</i>						
General and administrative	\$ 18,728	\$ 17,817	\$ (601)	\$ (310)	\$ (911)	-5%
Percentage of revenue	11%	12%				

General and administrative expense includes salaries, benefits, bonuses, stock-based compensation and travel expense for our finance, human resources, legal and executive personnel, as well as 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 \$9.4 million for the second quarter of fiscal 2019, representing a \$0.1 million, or 1%, increase from \$9.3 million for the same period last year. The non-currency related increase in general and administrative expense of \$0.1 million in the second quarter of fiscal 2019 compared to the second quarter of fiscal 2018 was primarily due to higher stock compensation expense of \$0.4 million partially offset by lower professional fees of \$0.3 million.

On a constant currency basis, general and administrative expense was \$18.7 million for the first six months of fiscal 2019, representing a \$0.6 million, or 3%, increase from \$18.1 million for the same period last year. The non-currency related increase in general and administrative expense of \$0.6 million in the first six months of fiscal 2019 compared to the first six months of fiscal 2018 was primarily due to higher stock compensation expense of \$0.5 million and higher payroll taxes of \$0.2 million partially offset by lower bonus expense of \$0.3 million.

Amortization of Intangibles from Acquisitions

Amortization of intangibles from acquisitions was zero and \$0.1 million in the second quarter of fiscal 2019 and 2018, respectively, and zero and \$0.3 million for the first six months of fiscal 2019 and 2018, respectively. Amortization expense for all periods was due to the intangible assets acquired in our fiscal 2013 acquisitions of DynaSys and CEBOS.

Total Other (Income) Expense

	Three Months Ended July 31, 2018	Increase (Decrease) Compared to Prior Period		Three Months Ended July 31, 2017
		\$	%	
<i>(in thousands)</i>				
Other (income) expense				
Interest income	\$ (743)	\$ (250)	-51%	\$ (493)
Interest expense	154	(3)	-2%	157
Other (income) expense, net	(269)	(1,477)	-122%	1,208
Total other (income) expense, net	\$ (858)	\$ (1,730)	-198%	\$ 872
Percentage of revenue	-1%			1%

	Six Months Ended July 31, 2018	Increase (Decrease) Compared to Prior Period		Six Months Ended July 31, 2017
		\$	%	
<i>(in thousands)</i>				
Other (income) expense				
Interest income	\$ (1,267)	\$ (606)	-92%	\$ (661)
Interest expense	311	(2)	-1%	313
Other (income) expense, net	(673)	(2,485)	-137%	1,812
Total other (income) expense, net	\$ (1,629)	\$ (3,093)	-211%	\$ 1,464
Percentage of revenue	-1%			1%

Total other (income) expense, net was \$(0.9) million and \$0.9 million for the second quarter of fiscal 2019 and fiscal 2018, respectively. The change in net other (income) expense was primarily related to lower foreign exchange losses of \$1.3 million and an increase in interest income of \$0.3 million.

Total other (income) expense, net was \$(1.6) million and \$1.5 million for the first six months of fiscal 2019 and fiscal 2018, respectively. The change in net other (income) expense was primarily related to lower foreign exchange losses of \$2.2 million, higher interest income of \$0.6 million and the favorable change in the fair market value of the interest rate swap associated with the mortgage on our headquarters of \$0.2 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 July 31, 2018	Increase Compared to Prior Period		Three Months Ended July 31, 2017
		\$	%	
<i>(in thousands)</i>				
Income tax expense	\$ 1,471	\$ 639	77%	\$ 832
Percentage of revenue	2%			1%
Effective tax rate	57%			-253%

	Six Months Ended July 31, 2018	Increase Compared to Prior Period		Six Months Ended July 31, 2017
		\$	%	
<i>(in thousands)</i>				
Income tax expense	\$ 2,654	\$ 1,202	83%	\$ 1,452
Percentage of revenue	2%			1%
Effective tax rate	51%			-64%

In determining the provision for income taxes for the second quarter of fiscal 2019, we calculated income tax expense based on the estimated annual tax rate for the year, compared to the prior year when we calculated the actual tax expense based on actual results for the quarter. The annual effective tax rate was adjusted for discrete items recorded during both periods. The estimated annual tax rate for the year was used in the current period since we are forecasting profits for the full fiscal year 2019.

We recorded income tax expense of \$1.5 million and \$0.8 million in the second quarter of fiscal 2019 and 2018, respectively. Our effective tax rate increased to 57% for the second quarter of fiscal 2019 compared to (253%) for the same period in the prior year. The increase in the effective tax rate is primarily due to the forecasted profits and pretax book income in the second quarter of fiscal 2019 compared to a pretax loss for the same period of fiscal 2018.

We recorded income tax expense of \$2.7 million and \$1.5 million for the first six months of fiscal 2019 and 2018, respectively. Our effective tax rate increased to 51% from (64%) for the same period in the prior year. The increase in the effective tax rate is primarily due to forecasted profits and pretax book income for the first six months of fiscal 2019 compared to a pretax book loss for the same period of fiscal 2018.

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, non-GAAP pre-tax income and estimated income tax expense on GAAP earnings 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.
- Estimated income tax expense on GAAP earnings - Defined as GAAP total tax expense excluding changes in reserves for unrecognized tax benefits.

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 six months ended July 31, 2018 and 2017:

	Three Months Ended July 31,		Six Months Ended July 31,	
	2018	2017	2018	2017
<i>(in thousands)</i>				
Total revenue	\$ 84,543	\$ 75,958	\$ 170,733	\$ 147,340
Net income (loss)	1,113	(1,161)	2,510	(3,732)
Add back:				
Net interest expense	(589)	(336)	(956)	(348)
Depreciation	1,188	1,139	2,388	2,243
Amortization	146	307	305	723
Income tax expense	1,471	832	2,654	1,452
EBITDA	\$ 3,329	\$ 781	\$ 6,901	\$ 338
Add back:				
Stock-based compensation expense	3,364	2,592	5,470	4,360
Change in fair value of interest rate swap	(35)	16	(152)	3
Adjusted EBITDA	\$ 6,658	\$ 3,389	\$ 12,219	\$ 4,701
Adjusted EBITDA margin	8%	4%	7%	3%
Non-GAAP pre-tax income reconciliation				
Income (loss) before income taxes	\$ 2,584	\$ (329)	\$ 5,164	\$ (2,280)
Add back:				
Stock-based compensation expense	3,364	2,592	5,470	4,360
Amortization of purchased intangible assets	-	225	-	567
Change in fair value of interest rate swap	(35)	16	(152)	3
Non-GAAP income before income taxes	\$ 5,913	\$ 2,504	\$ 10,482	\$ 2,650
Estimated income tax expense on GAAP earnings	\$ 1,622	\$ 849	\$ 2,734	\$ 1,497

LIQUIDITY AND CAPITAL RESOURCES

Our primary source of cash is from the sale of subscription, 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 and overhead costs. In addition to operating expenses, we may also use cash for capital expenditures; payment of dividends and stock repurchases; and to invest in our growth initiatives, which may include acquisitions of products, technologies and businesses.

At July 31, 2018, our principal sources of liquidity were cash and equivalents totaling \$139.5 million and net accounts receivable of \$54.3 million. Our cash and equivalents consisted of current bank accounts, registered money market funds and time delineated deposits. Approximately 85% of our cash and equivalents were held in U.S. dollar denominated accounts as of July 31, 2018.

Our primary commercial banking relationship is with Bank of America and its global affiliates. Our cash and equivalents are held by diversified financial institutions globally, and as of July 31, 2018, the portion of our cash and equivalents held by or invested through Bank of America was approximately 95%. Our largest cash concentrations are in the United States and Ireland. The percentage of cash and equivalents held by foreign subsidiaries was 74% and 69% as of July 31, 2018 and January 31, 2018, 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. We do not anticipate changing our intention regarding permanently reinvested earnings as of the balance sheet date.

In December 2017, the U.S. Tax Cuts and Jobs Act ("Tax Act") was signed into law. The Tax Act includes a mandatory one-time tax on accumulated earnings of our foreign subsidiaries which resulted in an estimated \$2 million of additional U.S. tax and will be paid in equal installments over eight years beginning in fiscal 2019. In spite of the U.S. taxation on these earnings, we intend to permanently reinvest the earnings in 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 six months ended July 31, 2018 and 2017:

<i>(in thousands)</i>	Six Months Ended July 31,	
	2018	2017
Net cash provided by operating activities	\$ 9,146	\$ 7,638
Net cash used in investing activities	(2,990)	(2,051)
Net cash used in financing activities	(11,541)	(5,678)
Effect of foreign exchange rates on cash and equivalents	(2,110)	4,211
Net (decrease) increase in cash and equivalents	<u>\$ (7,495)</u>	<u>\$ 4,120</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 bonus payments and income 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 \$9.1 million and \$7.6 million for the first six months of fiscal 2019 and 2018, respectively. The increase in cash flows from operating activities was due primarily to an increase in profitability partially offset by the negative cash flow effect of changes in deferred revenue.

Net cash used in investing activities consisted primarily of capital expenditures of \$2.0 million and \$1.6 million for the first six months of fiscal 2019 and 2018, respectively. 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 consisted primarily of payments of withholding taxes on settlement of stock-based compensation and payment of dividends. In the first six months of fiscal 2019 and 2018, we paid withholding taxes of \$8.6 million and \$2.8 million, respectively, on vested restricted stock units and exercised stock appreciation rights. In the first six months of both fiscal 2019 and 2018, we made dividend payments of \$2.7 million. 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 53 days and 51 days as of July 31, 2018 and 2017, respectively. DSO using the average method, which is calculated utilizing the accounts receivable balance and earned revenue for the most recent quarter, was 58 days and 50 days at July 31, 2018 and 2017, 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 July 31, 2018 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, 2018 was disclosed in our Annual Report on Form 10-K for the year ended January 31, 2018. During the quarter and six months ended July 31, 2018 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 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 2.08% at July 31, 2018. 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 Rabobank, N.A. 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 July 31, 2018 was \$13.6 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 2018 and the first six months of fiscal 2019 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 and Mexican peso. 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 July 31, 2018.

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 six months ended July 31, 2018 and 2017, approximately 53% 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 41% and 40% for the six months ended July 31, 2018 and 2017, 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 55%.

For the six months ended July 31, 2018 and 2017, foreign currency transaction and remeasurement (gains) losses totaled (\$0.3) million and \$1.9 million, respectively, and are included in “Other (income) expense, net” in our Condensed Consolidated Statements of Operations and Comprehensive Income (Loss). 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 \$2.5 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 2018 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 July 31, 2018 rates would cause 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 Principal Executive Officer and Principal 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 Principal Executive Officer and Principal 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 Principal Executive Officer and Principal Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Changes in internal control over financial reporting. There were no changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our 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, 2018.

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 [Certification by the Principal 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](#)
- 31.2 [Certification by the Principal 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](#)
- 32.1 [Certification by the Principal Executive Officer and the Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 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: September 7, 2018

By: /s/ DANIEL LENDER
Daniel Lender
Executive Vice President, Chief Financial Officer
(Principal 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, Pamela M. Lopker, 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: September 7, 2018

/s/ PAMELA M. LOPKER

Pamela M. Lopker

President

(Principal 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: September 7, 2018

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

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL 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 ending July 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Pamela M. Lopker, President 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: September 7, 2018

/s/ PAMELA M. LOPKER
Pamela M. Lopker
President
(Principal Executive Officer)
QAD Inc.

In connection with the Quarterly Report of QAD Inc. (the "Company") on Form 10-Q for the period ending July 31, 2018 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: September 7, 2018

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

