

BlackBerry Limited
Incorporated under the Laws of Ontario
(United States dollars, in millions) (unaudited)

Consolidated Balance Sheets

	As at	
	August 31, 2019	February 28, 2019
Assets		
Current		
Cash and cash equivalents	\$ 460	\$ 548
Short-term investments	389	368
Accounts receivable, net	194	194
Other receivables	18	19
Income taxes receivable	10	9
Other current assets	60	56
	<u>1,131</u>	<u>1,194</u>
Restricted cash and cash equivalents	34	34
Long-term investments	55	55
Other long-term assets	35	28
Deferred income tax assets	—	2
Operating lease right-of-use assets	145	—
Property, plant and equipment, net	79	85
Goodwill	1,458	1,463
Intangible assets, net	996	1,068
	<u>\$ 3,933</u>	<u>\$ 3,929</u>
Liabilities		
Current		
Accounts payable	\$ 37	\$ 48
Accrued liabilities	191	192
Income taxes payable	18	17
Deferred revenue, current	249	214
	<u>495</u>	<u>471</u>
Deferred revenue, non-current	107	136
Operating lease liabilities	135	—
Other long-term liabilities	6	19
Long-term debt	627	665
Deferred income tax liabilities	1	2
	<u>1,371</u>	<u>1,293</u>
Commitments and contingencies (Note 11)		
Shareholders' equity		
Capital stock and additional paid-in capital		
Preferred shares: authorized unlimited number of non-voting, cumulative, redeemable and retractable		
Common shares: authorized unlimited number of non-voting, redeemable, retractable Class A common shares and unlimited number of voting common shares		
Issued - 548,335,900 voting common shares (February 28, 2019 - 547,357,972)	2,722	2,688
Deficit	(125)	(32)
Accumulated other comprehensive loss	(35)	(20)
	<u>2,562</u>	<u>2,636</u>
	<u>\$ 3,933</u>	<u>\$ 3,929</u>

See notes to consolidated financial statements.

On behalf of the Board:

John S. Chen
Director

Barbara Stymiest
Director

BlackBerry Limited
(United States dollars, in millions) (unaudited)

Consolidated Statements of Shareholders' Equity

	Capital Stock and Additional Paid-in Capital	Deficit	Accumulated Other Comprehensive Loss	Total
Balance as at February 28, 2019	\$ 2,688	\$ (32)	\$ (20)	\$ 2,636
Net loss	—	(79)	—	(79)
Other comprehensive loss	—	—	(15)	(15)
Cumulative impact of adoption of ASC 842	—	(14)	—	(14)
Shares issued:				
Stock-based compensation	31	—	—	31
Exercise of stock options	1	—	—	1
Employee share purchase plan	2	—	—	2
Balance as at August 31, 2019	\$ 2,722	\$ (125)	\$ (35)	\$ 2,562

	Capital Stock and Additional Paid-in Capital	Deficit	Accumulated Other Comprehensive Loss	Total
Balance as at February 28, 2018	\$ 2,560	\$ (45)	\$ (10)	\$ 2,505
Net loss	—	(17)	—	(17)
Other comprehensive loss	—	—	(2)	(2)
Cumulative impact of adoption of ASC 606	—	(86)	—	(86)
Cumulative impact of adoption of ASU 2016-01	—	6	(6)	—
Shares issued:				
Stock-based compensation	38	—	—	38
Employee share purchase plan	2	—	—	2
Balance as at August 31, 2018	\$ 2,600	\$ (142)	\$ (18)	\$ 2,440

See notes to consolidated financial statements.

BlackBerry Limited
(United States dollars, in millions, except per share data) (unaudited)

Consolidated Statements of Operations

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
Revenue	\$ 244	\$ 210	\$ 491	\$ 423
Cost of sales	68	49	138	101
Gross margin	176	161	353	322
Operating expenses				
Research and development	62	51	133	112
Selling, marketing and administration	132	106	253	206
Amortization	48	35	97	72
Debentures fair value adjustment	(23)	(70)	(51)	(42)
	219	122	432	348
Operating income (loss)	(43)	39	(79)	(26)
Investment income, net	—	5	3	11
Income (loss) before income taxes	(43)	44	(76)	(15)
Provision for income taxes	1	1	3	2
Net income (loss)	\$ (44)	\$ 43	\$ (79)	\$ (17)
Earnings (loss) per share				
Basic	\$ (0.08)	\$ 0.08	\$ (0.14)	\$ (0.03)
Diluted	\$ (0.10)	\$ (0.04)	\$ (0.19)	\$ (0.08)

See notes to consolidated financial statements.

BlackBerry Limited
(United States dollars, in millions) (unaudited)

Consolidated Statements of Comprehensive Income (Loss)

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
Net income (loss)	\$ (44)	\$ 43	\$ (79)	\$ (17)
Other comprehensive income (loss)				
Net change in unrealized gains on available-for-sale debt securities	—	1	—	1
Net change in fair value of derivatives designated as cash flow hedges during the period, net of income taxes of nil for the three and six months ended August 31, 2019 and August 31, 2018	1	(2)	—	(2)
Amounts reclassified to net income (loss) during the period for derivatives designated as cash flow hedges, net of income taxes of nil for the three and six months ended August 31, 2019 and August 31, 2018	—	1	—	2
Foreign currency translation adjustment	(1)	—	(2)	(4)
Gain (loss) from change in fair value from instrument-specific credit risk on the Debentures	(6)	1	(13)	1
Other comprehensive income (loss)	(6)	1	(15)	(2)
Comprehensive income (loss)	<u>\$ (50)</u>	<u>\$ 44</u>	<u>\$ (94)</u>	<u>\$ (19)</u>

See notes to consolidated financial statements.

BlackBerry Limited
(United States dollars, in millions) (unaudited)

Consolidated Statements of Cash Flows

	Six Months Ended	
	August 31, 2019	August 31, 2018
Cash flows from operating activities		
Net loss	\$ (79)	\$ (17)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization	107	79
Deferred income taxes	1	—
Stock-based compensation	31	39
Non-cash consideration received from contract with a customer	(8)	—
Debentures fair value adjustment	(51)	(42)
Operating leases	(10)	—
Other	4	2
Net changes in working capital items:		
Accounts receivable, net	—	6
Other receivables	1	19
Income taxes receivable	(1)	11
Other assets	(10)	(9)
Accounts payable	(11)	(12)
Income taxes payable	1	2
Accrued liabilities	(26)	(43)
Deferred revenue	4	(7)
Other long-term liabilities	—	(6)
Net cash provided by (used in) operating activities	(47)	22
Cash flows from investing activities		
Acquisition of long-term investments	—	(1)
Acquisition of property, plant and equipment	(6)	(9)
Proceeds on sale of property, plant and equipment	—	1
Acquisition of intangible assets	(16)	(16)
Business acquisitions, net of cash acquired	1	—
Acquisition of short-term investments	(553)	(2,178)
Proceeds on sale or maturity of short-term investments	532	1,939
Net cash used in investing activities	(42)	(264)
Cash flows from financing activities		
Issuance of common shares	3	2
Finance lease liability	(1)	—
Net cash provided by financing activities	2	2
Effect of foreign exchange loss on cash, cash equivalents, restricted cash, and restricted cash equivalents	(1)	(2)
Net decrease in cash, cash equivalents, restricted cash, and restricted cash equivalents during the period	(88)	(242)
Cash, cash equivalents, restricted cash, and restricted cash equivalents, beginning of period	582	855
Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of period	\$ 494	\$ 613

See notes to consolidated financial statements.

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Notes to the Consolidated Financial Statements

(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND CRITICAL ACCOUNTING ESTIMATES

Basis of Presentation and Preparation

These interim consolidated financial statements have been prepared by management in accordance with United States generally accepted accounting principles (“U.S. GAAP”). They do not include all of the disclosures required by U.S. GAAP for annual financial statements and should be read in conjunction with the audited consolidated financial statements of BlackBerry Limited (the “Company”) for the year ended February 28, 2019 (the “Annual Financial Statements”), which have been prepared in accordance with U.S. GAAP. In the opinion of management, all normal recurring adjustments considered necessary for fair presentation have been included in these interim consolidated financial statements. Operating results for the three and six months ended August 31, 2019 are not necessarily indicative of the results that may be expected for the full year ending February 29, 2020.

Certain comparative figures have been reclassified to conform to the current period’s presentation.

The Company operates as a single reportable segment. For additional information concerning the Company’s segment reporting, see Note 13.

Significant Accounting Policies and Critical Accounting Estimates

There have been no material changes to the Company’s accounting policies or critical accounting estimates from those described in the Annual Financial Statements, except as described below, which were adopted during fiscal 2020.

Leases

On March 1, 2019, the Company adopted the new standard on leases, Accounting Standards Codification 842 (“ASC 842”). The Company determines if an arrangement is or contains a lease at inception. Such determination requires consideration of all relevant facts and circumstances. Operating leases are included in operating lease right-of-use (“ROU”) assets, accrued liabilities, and operating lease liabilities on the Company’s consolidated balance sheets. Finance leases are included in property, plant and equipment, net, accrued liabilities, and other long-term liabilities on the Company’s consolidated balance sheets.

Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the commencement date. As most of the Company’s leases do not provide an implicit discount rate, the Company primarily uses its incremental borrowing rate, based on the information available at the commencement date of the lease, in determining the present value of future payments. The Company’s incremental borrowing rate is determined based on the rate of interest that the Company would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term in a similar economic environment. The operating lease ROU asset includes any lease payments made, lease incentives and initial direct costs incurred. The lease terms include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. In some cases, the Company has index-based variable lease payments for which an estimated rate is applied to the initial lease payment to determine future lease payment amounts.

The Company has building, car and data center lease agreements with lease and non-lease components that are accounted for separately. The Company has elected the short-term lease exemption, which allows the Company to not apply the recognition requirements to lease terms of 12 months or less on commencement date. The Company also elected the package of practical expedients where lease classification, embedded leases, and initial direct costs are not reassessed upon adoption of ASC 842.

For additional information concerning the Company’s leases, see Note 12.

Derivative financial instruments

On March 1, 2019, the Company adopted the new Accounting Standards Update (“ASU”) 2017-12 related to accounting for hedging activities. The Company uses derivative financial instruments, including forward contracts and options, to hedge certain foreign currency exposures. The Company does not use derivative financial instruments for speculative purposes.

The Company records all derivative instruments at fair value on the consolidated balance sheets. The fair value of these instruments is calculated based on notional and exercise values, transaction rates, market quoted currency spot rates,

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Notes to the Consolidated Financial Statements

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forward points, volatilities and interest rate yield curves. The accounting for changes in the fair value of a derivative depends on the intended use of the derivative instrument and the resulting designation.

For derivative instruments designated as cash flow hedges, the entire change in the value of the hedging instrument included in the assessment of hedge effectiveness is initially reported as a component of accumulated other comprehensive income (loss) ("AOCI"), net of tax, and subsequently reclassified into income in the same period or periods in which the hedged item affects income. In order for the Company to receive hedge accounting treatment, the cash flow hedge must be highly effective in offsetting changes in the value of the hedged item and the relationship between the hedging instrument and the associated hedged item must be formally documented at the inception of the hedge relationship. Hedge effectiveness is formally assessed, both at hedge inception and on an ongoing basis, to determine whether the derivatives used in hedging transactions are highly effective in offsetting changes in the value of the hedged items and whether they are expected to continue to be highly effective in future periods.

The Company formally documents relationships between hedging instruments and associated hedged items. This documentation includes: identification of the specific foreign currency asset, liability or forecasted transaction being hedged; the nature of the risk being hedged; the hedge objective; and the method of assessing hedge effectiveness. If an anticipated transaction is deemed no longer likely to occur, the corresponding derivative instrument is de-designated as a hedge and any associated unrealized gains and losses in AOCI are recognized in income at that time. Any future changes in the fair value of the instrument are recognized in current income.

For any derivative instruments that do not meet the requirements for hedge accounting, or for any derivative instruments for which hedge accounting is not elected, the changes in fair value of the instruments are recognized in income in the current period and will generally offset the changes in the U.S. dollar value of the associated asset, liability or forecasted transaction.

Accounting Standards Adopted during Fiscal 2020

In February 2016, the Financial Accounting Standards Board ("FASB") issued ASC 842 on leases. The standard requires companies to include lease obligations in their balance sheets, including a dual approach for lessee accounting under which a lessee would account for leases as finance leases or operating leases. Both finance leases and operating leases result in the lessee recognizing a ROU asset and a corresponding lease liability. The operating lease ROU asset also includes any lease payments made and excludes lease incentives and initial direct costs incurred on transition. For finance leases, the lessee will recognize interest expense and amortization of the ROU asset, and for operating leases, the lessee will recognize a straight-line total lease expense. The guidance is effective for interim and annual periods beginning after December 15, 2018. The Company adopted this guidance in the first quarter of fiscal 2020 using the modified retrospective method for all leases that existed at or commence after the date of initial application. As a result of the adoption of the new standard on leases, the Company recognized ROU assets of approximately \$161 million, lease liabilities of approximately \$175 million, and a cumulative adjustment to increase the deficit of approximately \$14 million in the consolidated balance sheet as at March 1, 2019. Future lease costs included in the Resource Alignment Program ("RAP") of approximately \$14 million, which were accrued for prior to adoption of ASC 842, and were previously included in accrued liabilities and other long-term liabilities, are now presented in accrued liabilities and operating lease liabilities in the consolidated balance sheet as at March 1, 2019. As a result, total operating lease liabilities were \$189 million in the consolidated balance sheet as at March 1, 2019.

In August 2017, the FASB issued ASU 2017-12. This guidance expands the range of strategies that qualify for hedge accounting, changes how certain hedging relationships are presented in the financial statements, and simplifies the application of hedge accounting in certain situations. The guidance is effective for interim and annual periods beginning after December 15, 2018. The Company adopted this guidance in the first quarter of fiscal 2020 and it did not have a material impact to the consolidated financial results.

Issued Accounting Pronouncements

In June 2016, the FASB issued guidance related to the measurement of credit losses on financial instruments, ASU 2016-13. This guidance replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses, requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates, and requires entities to estimate an expected lifetime credit loss on its financial assets. The guidance is effective for interim and annual periods beginning after December 15, 2019. The Company will adopt this guidance in the first quarter of fiscal 2021 and is currently evaluating the impact that the adoption will have on its results of operations, financial position and disclosures.

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2. FAIR VALUE MEASUREMENTS, CASH, CASH EQUIVALENTS AND INVESTMENTS

Fair Value

The Company defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact and considers assumptions that market participants would use in pricing the asset or liability such as inherent risk, non-performance risk and credit risk. The Company applies the following fair value hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value into three levels:

- Level 1 - Unadjusted quoted prices at the measurement date for identical assets or liabilities in active markets.
- Level 2 - Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.
- Level 3 - Significant unobservable inputs that are supported by little or no market activity.

The fair value hierarchy also requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

Recurring Fair Value Measurements

The carrying amounts of the Company's cash and cash equivalents, accounts receivable, other receivables, accounts payable and accrued liabilities approximate their fair values due to their short maturities.

In determining the fair value of investments held (other than those classified as Level 3), the Company primarily relies on an independent third-party valuator for the fair valuation of securities. The Company also reviews the inputs used in the valuation process and assesses the pricing of the securities for reasonableness after conducting its own internal collection of quoted prices from brokers. Fair values for all investment categories provided by the independent third-party valuator that are in excess of 0.5% from the fair values determined by the Company are communicated to the independent third-party valuator for consideration of reasonableness. The independent third-party valuator considers the information provided by the Company before determining whether a change in their original pricing is warranted.

The Company's investments (other than those classified as Level 3) largely consist of securities issued by major corporate and banking organizations, the provincial and federal governments of Canada, international government banking organizations and the United States Department of the Treasury, and are all investment grade. The Company also holds a limited amount of equity securities following the initial public offering by the issuer of a previous cost-based investment.

For a description of how the fair values of currency forward contracts and currency option contracts and the fair value of the Debentures (as defined in Note 7) are determined, see the "Derivative financial instruments" and "Convertible debentures" accounting policies in Note 1 to the Annual Financial Statements.

There were no changes in the fair value of the Company's Level 3 assets for the three and six months ended August 31, 2019 and August 31, 2018. The Company recognizes transfers in and out of levels within the fair value hierarchy at the end of the reporting period in which the actual event or change in circumstance occurred. There were no transfers in or out of Level 3 assets during the three and six months ended August 31, 2019 or August 31, 2018.

The Company's Level 3 assets measured on a recurring basis consist of auction rate securities. For a detailed description of the Company's valuation of auction rate securities, see Note 4 to the Annual Financial Statements.

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Cash, Cash Equivalents and Investments

The components of cash, cash equivalents and investments by fair value level as at August 31, 2019 were as follows:

	Cost Basis	Unrealized Gains	Unrealized Losses	Other-than-temporary Impairment	Fair Value	Cash and Cash Equivalents	Short-term Investments	Long-term Investments	Restricted Cash and Cash Equivalents
Bank balances	\$ 174	\$ —	\$ —	\$ —	\$ 174	\$ 170	\$ —	\$ —	\$ 4
Other investments	36	—	—	—	36	—	—	36	—
	210	—	—	—	210	170	—	36	4
Level 1:									
Equity securities	10	—	(10)	—	—	—	—	—	—
Level 2:									
Term deposits, certificates of deposits and GICs	135	—	—	—	135	25	80	—	30
Bankers' acceptances/bearer deposit notes	78	—	—	—	78	27	51	—	—
Commercial paper	204	—	—	—	204	155	49	—	—
Non-U.S. promissory notes	75	—	—	—	75	30	45	—	—
Non-U.S. government sponsored enterprise notes	176	—	—	—	176	38	138	—	—
Non-U.S. treasury bills/notes	14	—	—	—	14	—	14	—	—
U.S. treasury bills/notes	27	—	—	—	27	15	12	—	—
	709	—	—	—	709	290	389	—	30
Level 3:									
Auction rate securities	20	2	—	(3)	19	—	—	19	—
	<u>\$ 949</u>	<u>\$ 2</u>	<u>\$ (10)</u>	<u>\$ (3)</u>	<u>\$ 938</u>	<u>\$ 460</u>	<u>\$ 389</u>	<u>\$ 55</u>	<u>\$ 34</u>

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(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

The components of cash, cash equivalents and investments by fair value level as at February 28, 2019 were as follows:

	Cost Basis	Unrealized Gains	Unrealized Losses	Other-than-temporary Impairment	Fair Value	Cash and Cash Equivalents	Short-term Investments	Long-term Investments	Restricted Cash and Cash Equivalents
Bank balances	\$ 326	\$ —	\$ —	\$ —	\$ 326	\$ 322	\$ —	\$ —	\$ 4
Other investments	36	—	—	—	36	—	—	36	—
	362	—	—	—	362	322	—	36	4
Level 1:									
Equity securities	10	—	(10)	—	—	—	—	—	—
Level 2:									
Term deposits, certificates of deposits and GICs	85	—	—	—	85	—	55	—	30
Bankers' acceptances	39	—	—	—	39	4	35	—	—
Commercial paper	264	—	—	—	264	177	87	—	—
Non-U.S. promissory notes	20	—	—	—	20	20	—	—	—
Non-U.S. government sponsored enterprise notes	139	—	—	—	139	25	114	—	—
Non-U.S. treasury bills/notes	35	—	—	—	35	—	35	—	—
U.S. treasury bills/notes	42	—	—	—	42	—	42	—	—
	624	—	—	—	624	226	368	—	30
Level 3:									
Auction rate securities	20	2	—	(3)	19	—	—	19	—
	<u>\$ 1,016</u>	<u>\$ 2</u>	<u>\$ (10)</u>	<u>\$ (3)</u>	<u>\$ 1,005</u>	<u>\$ 548</u>	<u>\$ 368</u>	<u>\$ 55</u>	<u>\$ 34</u>

As at August 31, 2019, the Company had equity investments without readily determinable fair value of \$36 million (February 28, 2019 - \$36 million).

There were no realized gains or losses on available-for-sale securities for the three and six months ended August 31, 2019 or the three and six months ended August 31, 2018.

The Company has restricted cash consisting of cash and securities pledged as collateral to major banking partners in support of the Company's requirements for letters of credit. These letters of credit primarily support certain leasing arrangements entered into in the ordinary course of business, for terms ranging from one month to nine years. The Company is restricted from accessing these funds during the term of the leases for which the letters of credit have been issued; however, the Company can continue to invest the funds and receive investment income thereon.

The following table provides a reconciliation of cash, cash equivalents, restricted cash, and restricted cash equivalents as at August 31, 2019 and February 28, 2019 from the consolidated balance sheets to the consolidated statements of cash flows:

	As at	
	August 31, 2019	February 28, 2019
Cash and cash equivalents	\$ 460	\$ 548
Restricted cash and cash equivalents	34	34
Total cash, cash equivalents, restricted cash, and restricted cash equivalents presented in the consolidated statements of cash flows	<u>\$ 494</u>	<u>\$ 582</u>

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The contractual maturities of available-for-sale investments as at August 31, 2019 and February 28, 2019 were as follows:

	As at			
	August 31, 2019		February 28, 2019	
	Cost Basis ⁽¹⁾	Fair Value	Cost Basis ⁽¹⁾	Fair Value
Due in one year or less	\$ 709	\$ 709	\$ 624	\$ 624
Due after five years	17	19	17	19
No fixed maturity	10	—	10	—
	<u>\$ 736</u>	<u>\$ 728</u>	<u>\$ 651</u>	<u>\$ 643</u>

⁽¹⁾ Cost basis includes other-than-temporary impairment.

As at August 31, 2019, the Company had investments with continuous unrealized losses totaling \$10 million, consisting of unrealized losses on equity securities (February 28, 2019 - continuous unrealized losses totaling \$10 million).

3. DERIVATIVE FINANCIAL INSTRUMENTS

The notional amounts and fair values of derivative financial instruments outstanding were as follows:

	Derivative Assets ⁽¹⁾⁽²⁾		Derivative Liabilities ⁽¹⁾⁽³⁾	
	As at August 31, 2019	As at February 28, 2019	As at August 31, 2019	As at February 28, 2019
Foreign exchange contracts				
Fair value of derivatives designated as cash flow hedges	\$ —	\$ 1	\$ —	\$ (1)
Fair value of derivatives not subject to hedge accounting	1	—	(1)	—
Total estimated fair value	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ (1)</u>	<u>\$ (1)</u>
Notional amount	<u>\$ 94</u>	<u>\$ 93</u>	<u>\$ 144</u>	<u>\$ 91</u>

⁽¹⁾ The fair values of derivative assets and liabilities are measured using Level 2 fair value inputs.

⁽²⁾ Derivative assets are included in other current assets.

⁽³⁾ Derivative liabilities are included in accrued liabilities.

Foreign Exchange

For a description of the Company's usage of derivatives and related accounting policy for these instruments, see Note 1.

The Company enters into forward and option contracts to hedge exposures relating to anticipated foreign currency transactions. These contracts have been designated as cash flow hedges. The maturity dates of these instruments range from September 2019 to August 2020. As at August 31, 2019, the net unrealized loss on these forward and option contracts (including option premiums paid) was nil (February 28, 2019 - net unrealized loss of nil). Unrealized gains associated with these contracts were recorded in other current assets and AOCI. Unrealized losses were recorded in accrued liabilities and AOCI. Option premiums were recorded in AOCI. As at August 31, 2019, the Company estimates that approximately nil of net unrealized losses including option premiums on these forward and option contracts will be reclassified into income (loss) within the next 12 months.

The following table shows the impact of derivative instruments designated as cash flow hedges on the consolidated statements of operations and the consolidated statements of comprehensive income (loss) for the three and six months ended August 31, 2019:

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(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

	Amount of Loss Recognized in Other Comprehensive Loss on Derivative Instruments (Effective Portion)	Location of Gain (Loss) Reclassified from AOCI into Income (Effective Portion)	Amount of Loss Reclassified from AOCI into Income (Effective Portion)	
			Three Months Ended August 31, 2019	Six Months Ended August 31, 2019
Foreign exchange contracts	\$ —	Selling, marketing and administration	\$ —	\$ —
Total	\$ —		\$ —	\$ —

The following table shows the impact of derivative instruments designated as cash flow hedges on the consolidated statements of operations and the consolidated statements of comprehensive income (loss) for the three and six months ended August 31, 2018:

	Amount of Loss Recognized in Other Comprehensive Income (Loss) on Derivative Instruments (Effective Portion)	Location of Gain (Loss) Reclassified from AOCI into Income (Effective Portion)	Amount of Loss Reclassified from AOCI into Income (Effective Portion)	
			Three Months Ended August 31, 2018	Six Months Ended August 31, 2018
Foreign exchange contracts	\$ (2)	Selling, marketing and administration	\$ (1)	\$ (2)
Total	\$ (2)		\$ (1)	\$ (2)

As part of its business operations, the Company may maintain net monetary asset and/or liability balances in foreign currencies. The Company enters into foreign exchange forward contracts to economically hedge certain monetary assets and liabilities that are exposed to foreign currency risk. The principal currencies hedged include the Canadian dollar, euro, and British pound. These contracts are not subject to hedge accounting, and any realized and unrealized gains or losses are recognized in income (loss) each period, offsetting the change in the U.S. dollar value of the foreign currency denominated asset or liability. The maturity dates of these instruments range from September 2019 to November 2019. As at August 31, 2019, there were no unrealized gains or losses recorded in respect of these instruments (February 28, 2019 - nil). Unrealized gains associated with these contracts were recorded in other current assets and selling, marketing and administration expenses. Unrealized losses were recorded in accrued liabilities and selling, marketing and administration expenses.

The following table shows the impact of derivative instruments that are not subject to hedge accounting on the consolidated statements of operations for the three and six months ended August 31, 2019 and August 31, 2018:

	Location of Gain (Loss) Recognized in Income on Derivative Instruments	Amount of Gain (Loss) in Income on Derivative Instruments			
		Three Months Ended		Six Months Ended	
		August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
Foreign exchange contracts	Selling, marketing and administration	\$ 1	\$ 1	\$ —	\$ 4
Total		\$ 1	\$ 1	\$ —	\$ 4

Selling, marketing and administration expense for the three and six months ended August 31, 2019 included nil in gains and losses with respect to foreign exchange, net of balance sheet revaluation (three and six months ended August 31, 2018 - losses of \$2 million and \$2 million, respectively).

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Credit Risk

The Company is exposed to credit risk on derivative financial instruments arising from the potential for counterparties to default on their contractual obligations. The Company mitigates this risk by limiting counterparties to highly rated financial institutions and by continuously monitoring their creditworthiness. The Company's exposure to credit loss and market risk will vary over time as a function of currency exchange rates. The Company measures its counterparty credit exposure as a percentage of the total fair value of the applicable derivative instruments. Where the net fair value of derivative instruments with any counterparty is negative, the Company deems the credit exposure to that counterparty to be nil. As at August 31, 2019, the maximum credit exposure to a single counterparty, measured as a percentage of the total fair value of derivative instruments with net unrealized gains, was 100% (February 28, 2019 - 58%). As at August 31, 2019, the Company had a credit risk exposure to counterparties with outstanding or unsettled foreign exchange derivative instruments of \$1 million on a notional amount of \$57 million relating to derivative assets and a notional amount of \$47 million relating to derivative liabilities (February 28, 2019 - total credit risk exposure of nil on a notional amount of \$93 million relating to derivative assets and a notional amount of \$91 million relating to derivative liabilities).

The Company is exposed to market and credit risk on its investment portfolio. The Company reduces this risk by investing in liquid, investment-grade securities and by limiting exposure to any one entity or group of related entities. As at August 31, 2019, no single issuer represented more than 9% of the total cash, cash equivalents and investments (February 28, 2019 - no single issuer represented more than 16% of the total cash, cash equivalents and investments), and the largest single issuer was HSBC.

Interest Rate Risk

Cash and cash equivalents and investments are invested in certain instruments of varying maturities. Consequently, the Company is exposed to interest rate risk as a result of holding investments of varying maturities. The fair value of investments, as well as the investment income derived from the investment portfolio, will fluctuate with changes in prevailing interest rates. The Company has also issued the Debentures with a fixed 3.75% interest rate. The fair value of the Debentures will fluctuate with changes in prevailing interest rates. Consequently, the Company is exposed to interest rate risk as a result of the long-term nature of the Debentures. The Company does not currently utilize interest rate derivative instruments to hedge its investment portfolio or changes in market value of the Debentures.

4. CONSOLIDATED BALANCE SHEETS DETAILS

Accounts Receivable, Net

The allowance for doubtful accounts as at August 31, 2019 was \$25 million (February 28, 2019 - \$25 million).

There were two customers that each comprised more than 10% of accounts receivable as at August 31, 2019 (February 28, 2019 - one customer comprised more than 10%).

Other Current Assets

As at August 31, 2019, other current assets include items such as the current portion of deferred commissions, and prepaid expenses, among other items, none of which were greater than 5% of the current assets balance in all periods presented.

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Property, Plant and Equipment, Net

Property, plant and equipment comprised the following:

	As at	
	August 31, 2019	February 28, 2019
Cost		
Buildings, leasehold improvements and other	\$ 67	\$ 68
BlackBerry operations and other information technology	89	85
Manufacturing, repair and research and development equipment	73	73
Furniture and fixtures	13	14
	<u>242</u>	<u>240</u>
Accumulated amortization	<u>163</u>	<u>155</u>
Net book value	<u>\$ 79</u>	<u>\$ 85</u>

Intangible Assets, Net

Intangible assets comprised the following:

	As at August 31, 2019		
	Cost	Accumulated Amortization	Net Book Value
Acquired technology	\$ 1,019	\$ 597	\$ 422
Intellectual property	486	261	225
Other acquired intangibles	494	145	349
	<u>\$ 1,999</u>	<u>\$ 1,003</u>	<u>\$ 996</u>
	As at February 28, 2019		
	Cost	Accumulated Amortization	Net Book Value
Acquired technology	\$ 1,020	\$ 557	\$ 463
Intellectual property	466	239	227
Other acquired intangibles	494	116	378
	<u>\$ 1,980</u>	<u>\$ 912</u>	<u>\$ 1,068</u>

Other acquired intangible assets include items such as customer relationships and brand.

For the six months ended August 31, 2019, amortization expense related to intangible assets amounted to \$95 million (six months ended August 31, 2018 - \$70 million). During the six months ended August 31, 2019, additions to intangible assets primarily consisted of patents received as non-cash consideration in a contract with a customer, payments for intellectual property relating to patent maintenance, registration and licenses.

Based on the carrying value of the identified intangible assets as at August 31, 2019 and assuming no subsequent impairment of the underlying assets, the annual amortization expense for the remainder of fiscal 2020 and each of the five succeeding years is expected to be as follows: 2020 - \$89 million; 2021 - \$153 million; 2022 - \$135 million; 2023 - \$105 million; 2024 - \$98 million; and 2025 - \$92 million.

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Goodwill

Changes to the carrying amount of goodwill were as follows:

	Carrying Amount
Carrying amount as at February 28, 2019	\$ 1,463
Effect of foreign exchange on non-U.S. dollar denominated goodwill	(3)
Measurement period adjustment (see Note 5)	(2)
Carrying amount as at August 31, 2019	\$ 1,458

Other Long-term Assets

As at August 31, 2019, other long-term assets include items such as long-term portion of deferred commission and long-term receivables, among other items, none of which were greater than 5% of total assets in any of the periods presented.

Accrued Liabilities

Accrued liabilities comprised the following:

	As at	
	August 31, 2019	February 28, 2019
Variable incentive accrual	\$ 16	\$ 36
Operating lease liabilities, current	33	—
Other	142	156
	\$ 191	\$ 192

Other accrued liabilities include, among other items, accrued royalties, current RAP liabilities, accrued vendor liabilities, accrued carrier liabilities and payroll withholding taxes, none of which were greater than 5% of the current liabilities balance.

Other long-term liabilities

Other long-term liabilities consist of the long-term portion of finance lease liabilities and non-lease components of RAP liabilities. It previously included the present value of the long-term portion of accrued future lease payments associated with RAP, which are presented in operating lease liabilities as of the adoption of ASC 842. See Note 1.

5. BUSINESS ACQUISITIONS

On February 21, 2019, the Company acquired all of the issued and outstanding shares of Cylance Inc. (“Cylance”), an artificial intelligence and cybersecurity leader, for approximately \$1.4 billion in cash and common shares, plus the assumption of unvested employee incentive awards. The acquisition of Cylance is a strategic addition to the Company’s end-to-end secure communications portfolio. The accounting for the acquisition of Cylance was completed in the second quarter of fiscal 2020, as the final calculation of working capital of Cylance was finalized.

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The following table summarizes the fair value allocations of the acquisition price of the assets acquired and liabilities assumed during fiscal 2019:

	Preliminary balance at February 28, 2019	Measurement Period Adjustment	Balance as at August 31, 2019
Non-cash assets acquired			
Current assets	\$ 40	\$ (6)	\$ 34
Property, plant and equipment and other long-term assets	25	—	25
Intangible assets			
Acquired technology	283	—	283
In-process research and development	66	—	66
Customer relationships	277	—	277
Trade name	20	—	20
Goodwill ⁽¹⁾	899	(2)	897
	1,610	(8)	1,602
Liabilities assumed			
Current liabilities	27	1	28
Debt	125	—	125
Deferred revenue ⁽²⁾	95	(2)	93
Deferred tax liability	22	1	23
Other long-term liabilities	8	(7)	1
	277	(7)	270
Net non-cash assets acquired	1,333	(1)	1,332
Cash acquired	10	—	10
Restricted cash acquired	4	—	4
Net assets acquired	1,347	(1)	1,346
Settlement of acquiree debt ⁽³⁾	125	—	125
	\$ 1,472	\$ (1)	\$ 1,471
Consideration			
Cash consideration	\$ 1,416	\$ (1)	\$ 1,415
Replacement Awards issued ⁽⁴⁾	21	—	21
Exchange shares ⁽⁵⁾	35	—	35
Total consideration	\$ 1,472	\$ (1)	\$ 1,471

(1) Goodwill represents the excess of the acquisition price over the fair value of net assets acquired, which is not expected to be deductible for tax purposes when goodwill results from share purchases.

(2) The fair value of deferred revenue represents the costs to service the assumed obligations, plus a normal profit margin as required under purchase accounting.

(3) \$125 million in cash was paid to existing debt holders to settle Cylance debt outstanding at acquisition.

(4) Fair value of 8,320,130 options and 824,046 RSUs ("Replacement Awards") issued in connection with unvested Cylance employee equity awards, related to pre-combination service and considered purchase consideration. See Note 11(b) to the Annual Financial Statements for details on the Replacement Awards.

(5) In lieu of cash, a proportion of consideration owed to certain Cylance shareholders will be paid in BlackBerry common shares issued from treasury in equal instalments on the next three anniversary dates of the acquisition. There are no service or other requirements associated with the issuance of these shares.

The weighted average amortization period of the acquired technology, in-process research and development, customer relationships and trade name related to the business acquisitions completed during the year ended February 28, 2019 is approximately 8 years, 9 years, 9 years and 7 years, respectively.

The Company incurred \$12 million in acquisition-related costs included in selling, general and administration expenses for the fiscal year ended February 28, 2019.

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The Company recorded a measurement period recovery of \$3 million in selling, general and administration expenses for the six months ended August 31, 2019, as the amount would have been recognized in the prior fiscal year, if the adjustment to the provisional amounts had been recognized as of the acquisition date.

The amounts of revenue and loss before income taxes of the acquisition above included in the consolidated statements of operations for the year ended February 28, 2019 are as follows:

	Revenue	Loss before income taxes
Actuals from acquisition date to February 28, 2019	\$ 2	\$ (5)

Supplemental Pro Forma Combined Financial Statements

The following pro forma combined results for the year ended February 28, 2019 reflect the consolidated statements of operations of the Company as if the acquisition of Cylance had occurred at the beginning of fiscal 2019. These results combine the historical results of Cylance's consolidated statements of operations and are not necessarily indicative of the consolidated results of operations of the combined business had the acquisitions actually occurred at the beginning of fiscal 2019 or of the results of future operations of the combined business.

The supplemental pro forma information, as if the acquisitions had occurred on March 1, 2018, is as follows:

	For the Year Ended February 28, 2019
Revenue	\$ 1,027
Net loss ⁽¹⁾	(78)

⁽¹⁾ Includes measurement period adjustments identified for the six months ended August 31, 2019 of \$3 million to reflect if the adjustment to the provisional amounts had been recognized as of the acquisition date.

6. INCOME TAXES

For the six months ended August 31, 2019, the Company's net effective income tax expense rate was approximately 4% compared to a net effective income tax expense rate of 13% for the six months ended August 31, 2018. The Company's income tax rate reflects the fact that the Company has a significant valuation allowance against its deferred income tax assets, and in particular, the change in fair value of the Debentures, amongst other items, is offset by a corresponding adjustment of the valuation allowance. The Company's net effective income tax rate also reflects the geographic mix of earnings in jurisdictions with different income tax rates.

The Company's total unrecognized income tax benefits as at August 31, 2019 were \$84 million (February 28, 2019 - \$84 million). As at August 31, 2019, \$72 million of the unrecognized income tax benefits have been netted against deferred income tax assets and \$12 million has been recorded within income taxes payable on the Company's consolidated balance sheets.

The Company is subject to ongoing examination by tax authorities in certain jurisdictions in which it operates. The Company regularly assesses the status of these examinations and the potential for adverse outcomes to determine the adequacy of the provision for income taxes as well as the provisions for indirect and other taxes and related penalties and interest. While the final resolution of audits is uncertain, the Company believes the ultimate resolution of these audits will not have a material adverse effect on its consolidated financial position, liquidity or results of operations.

7. LONG-TERM DEBT

3.75% Convertible Debentures

On September 7, 2016, Fairfax Financial Holdings Limited ("Fairfax") and other institutional investors invested in the Company through a private placement of new debentures in an aggregate amount of \$605 million (the "Debentures").

Interest on the Debentures is payable quarterly in arrears at a rate of 3.75% per annum. The Debentures mature on November 13, 2020, and each \$1,000 of Debentures is convertible at any time into 100 common shares of the Company for a total of 60.5 million common shares at a price of \$10.00 per share for all Debentures, subject to adjustments. Covenants associated with the Debentures include limitations on the Company's total indebtedness.

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Under specified events of default, the outstanding principal and any accrued interest on the Debentures become immediately due and payable upon request of holders holding not less than 25% of the principal amount of the Debentures then outstanding. During an event of default, the interest rate rises to 7.75% per annum.

The Debentures are subject to a change of control provision whereby the Company would be required to make an offer to repurchase the Debentures at 115% of par value if a person or group (not affiliated with Fairfax) acquires 35% of the Company's outstanding common shares, acquires all or substantially all of its assets, or if the Company merges with another entity and the Company's existing shareholders hold less than 50% of the common shares of the surviving entity.

The following table summarizes the change in fair value of the Debentures for the six months ended August 31, 2019:

	As at August 31, 2019
Balance as at February 28, 2019	\$ 665
Change in fair value of the Debentures	(38)
Balance as at August 31, 2019	<u>\$ 627</u>

The difference between the fair value of the Debentures and the unpaid principal balance of \$605 million is \$22 million. The fair value of the Debentures is measured using Level 2 fair value inputs.

The following table shows the impact of the change in fair value of the Debentures for the three and six months ended August 31, 2019 and August 31, 2018:

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
Income associated with the change in fair value from non-credit components recorded in the consolidated statements of operations	\$ 23	\$ 70	\$ 51	\$ 42
Income (expense) associated with the change in fair value from instrument-specific credit components recorded in AOCI	(6)	1	(13)	1
Total decrease in the fair value of the Debentures	<u>\$ 17</u>	<u>\$ 71</u>	<u>\$ 38</u>	<u>\$ 43</u>

For the three and six months ended August 31, 2019, the Company recorded interest expense related to the Debentures of \$6 million and \$11 million, respectively, which has been included in investment income, net in the Company's consolidated statements of operations (three and six months ended August 31, 2018 - \$6 million and \$11 million, respectively).

Fairfax, a related party under U.S. GAAP, owns a \$500 million principal amount of the Debentures. As such, the payment of interest on the Debentures represents a related-party transaction. Fairfax receives interest at the same rate as other Debenture holders.

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8. CAPITAL STOCK

(a) Capital Stock

The following details the changes in issued and outstanding common shares for the six months ended August 31, 2019:

	Capital Stock and Additional Paid-in Capital	
	Stock Outstanding (000s)	Amount
Common shares outstanding as at February 28, 2019	547,358	\$ 2,688
Stock-based compensation	—	31
Exercise of stock options	479	1
Common shares issued for restricted share unit settlements	320	—
Common shares issued for employee share purchase plan	179	2
Common shares outstanding as at August 31, 2019	548,336	\$ 2,722

The Company had 548 million common shares, 7 million options to purchase common shares, 20 million restricted share units and 0.9 million deferred share units outstanding as at September 19, 2019. In addition, 60.5 million common shares are issuable upon conversion in full of the Debentures as described in Note 7.

(b) Stock-based Compensation

Inducement Awards

In the first quarter of fiscal 2020, the Board approved an agreement to grant performance-based equity awards (“Inducement Awards”) to the co-founders of Cylance covering up to 4,182,189 common shares. Up to 25%, 35% and 40% of the Inducement Awards may be earned at the end of the Company’s 2020, 2021 and 2022 fiscal years, respectively, if certain performance conditions are met, and any earned amounts will vest at the end of fiscal 2022. The Company also notes that 75% of the awards eligible to vest in a given year are based on achievement of a billings goal and 25% are based on achievement of a contribution margin goal. The Company recorded a recovery of approximately \$1 million for the three months ended August 31, 2019 and expense of \$1 million for the six months ended August 31, 2019 relating to the Inducement Awards.

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9. EARNINGS (LOSS) PER SHARE

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

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
Net income (loss) for basic earnings (loss) per share available to common shareholders	\$ (44)	\$ 43	\$ (79)	\$ (17)
Less: Debentures fair value adjustment ⁽¹⁾	(23)	(70)	(51)	(42)
Add: Interest expense on Debentures ⁽¹⁾	6	6	11	11
Net loss for diluted loss per share available to common shareholders	\$ (61)	\$ (21)	\$ (119)	\$ (48)
Weighted average number of shares outstanding (000s) - basic ⁽²⁾	552,343	537,299	552,096	537,136
Effect of dilutive securities (000s)				
Stock-based compensation ⁽³⁾	—	—	—	—
Conversion of Debentures ⁽¹⁾	60,500	60,500	60,500	60,500
Weighted average number of shares and assumed conversions (000s) - diluted	612,843	597,799	612,596	597,636
Earnings (loss) per share - reported				
Basic	\$ (0.08)	\$ 0.08	\$ (0.14)	\$ (0.03)
Diluted	\$ (0.10)	\$ (0.04)	\$ (0.19)	\$ (0.08)

- (1) The Company has presented the dilutive effect of the Debentures using the if-converted method, assuming conversion at the beginning of the quarter for the three and six months ended August 31, 2019, and three and six months ended August 31, 2018. Accordingly, to calculate diluted loss per share, the Company adjusted net income (loss) by eliminating the fair value adjustment made to the Debentures and interest expense incurred on the Debentures in the three and six months ended August 31, 2019, and three and six months ended August 31, 2018, and added the number of shares that would have been issued upon conversion to the diluted weighted average number of shares outstanding. See Note 7 for details on the Debentures.
- (2) Includes approximately 4,182,189 common shares to be issued in equal instalments on the next three anniversary dates of the Cylance acquisition, in consideration for the acquisition. There are no service or other requirements associated with the issuance of these shares.
- (3) The Company has not presented the dilutive effect of in-the-money options and RSUs that will be settled upon vesting by the issuance of new common shares in the calculation of earnings (loss) per share for the three and six months ended August 31, 2019, and three and six months ended August 31, 2018 as to do so would be antidilutive.

10. ACCUMULATED OTHER COMPREHENSIVE LOSS

The changes in AOCI by component, net of tax, for the six months ended August 31, 2019 were as follows:

	Foreign Currency Cumulative Translation Adjustment	Accumulated Net Unrealized Losses on Cash Flow Hedges	Other Post- Employment Benefit Obligations	Accumulated Net Unrealized Gains on Available-for- Sale Debt Securities	Change in fair value from instrument- specific credit risk on Debentures	Total
AOCI as at February 28, 2019	\$ (7)	\$ —	\$ (1)	\$ 2	\$ (14)	\$ (20)
Change in cumulative comprehensive loss for the period	(2)	—	—	—	(13)	(15)
AOCI as at August 31, 2019	\$ (9)	\$ —	\$ (1)	\$ 2	\$ (27)	\$ (35)

During the three and six months ended August 31, 2019, nil losses (pre-tax and post-tax) associated with cash flow hedges were reclassified from AOCI into selling, marketing and administration expenses.

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11. COMMITMENTS AND CONTINGENCIES

(a) Letters of Credit

The Company had \$28 million in collateralized outstanding letters of credit in support of certain leasing arrangements entered into in the ordinary course of business as of August 31, 2019. See the discussion of restricted cash in Note 2.

(b) Contingencies

Litigation

The Company is involved in litigation in the normal course of its business, both as a defendant and as a plaintiff. The Company is subject to a variety of claims (including claims related to patent infringement, purported class actions and other claims in the normal course of business) and may be subject to additional claims either directly or through indemnities against claims that it provides to certain of its partners and customers. In particular, the industry in which the Company competes has many participants that own, or claim to own, intellectual property, including participants that have been issued patents and may have filed patent applications or may obtain additional patents and proprietary rights for technologies similar to those used by the Company in its products. The Company has received, and may receive in the future, assertions and claims from third parties that the Company's products infringe on their patents or other intellectual property rights. Litigation has been, and will likely continue to be, necessary to determine the scope, enforceability and validity of third-party proprietary rights or to establish the Company's proprietary rights. Regardless of whether claims against the Company have merit, those claims could be time-consuming to evaluate and defend, result in costly litigation, divert management's attention and resources, subject the Company to significant liabilities and could have the other effects that are described in greater detail under "Risk Factors" in the Company's unaudited Annual Information Form for the fiscal year ended February 28, 2019, which is included in the Company's Annual Report on Form 40-F, including the risk factors entitled "Litigation against the Company may result in adverse outcomes" and "The Company could be found to have infringed on the intellectual property rights of others".

Management reviews all of the relevant facts for each claim and applies judgment in evaluating the likelihood and, if applicable, the amount of any potential loss. Where a potential loss is considered probable and the amount is reasonably estimable, provisions for loss are made based on management's assessment of the likely outcome. Where a range of loss can be reasonably estimated with no best estimate in the range, the Company records the minimum amount in the range. The Company does not provide for claims for which the outcome is not determinable or claims for which the amount of the loss cannot be reasonably estimated. Any settlements or awards under such claims are provided for when reasonably determinable.

As of August 31, 2019, there are no claims outstanding for which the Company has assessed the potential loss as both probable to result and reasonably estimable; therefore, no accrual has been made. Further, there are claims outstanding for which the Company has assessed the potential loss as reasonably probable to result; however, an estimate of the amount of loss cannot reasonably be made. There are many reasons that the Company cannot make these assessments, including, among others, one or more of the following: the early stages of a proceeding does not require the claimant to specifically identify the patent claims that have allegedly been infringed or the products that are alleged to infringe; damages sought are unspecified, unsupported, unexplained or uncertain; discovery has not been started or is incomplete; the facts that are in dispute are highly complex (e.g., once a patent is identified, the analysis of the patent and a comparison to the activities of the Company is a labour-intensive and highly technical process); the difficulty of assessing novel claims; the parties have not engaged in any meaningful settlement discussions; the possibility that other parties may share in any ultimate liability; and the often slow pace of litigation.

Though they do not meet the test for accrual described above, the Company has included the following summaries of certain of its legal proceedings that it believes may be of interest to its investors.

Between October and December 2013, several purported class action lawsuits and one individual lawsuit were filed against the Company and certain of its former officers in various jurisdictions in the U.S. and Canada alleging that the Company and certain of its officers made materially false and misleading statements regarding the Company's financial condition and business prospects and that certain of the Company's financial statements contain material misstatements. The individual lawsuit was voluntarily dismissed.

On March 14, 2014, the four putative U.S. class actions were consolidated in the U.S. District Court for the Southern District of New York, and on May 27, 2014, a consolidated amended class action complaint was filed. On March 13, 2015, the Court issued an order granting the Company's motion to dismiss. The Court denied the plaintiffs' motion for reconsideration and for leave to file an amended complaint on November 13, 2015. On August 24, 2016, the U.S. Court

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of Appeals for the Second Circuit affirmed the District Court order dismissing the complaint, but vacated the order denying leave to amend and remanded to the District Court for further proceedings in connection with the plaintiffs' request for leave to amend. The Court granted the plaintiffs' motion for leave to amend on September 13, 2017. On September 29, 2017, the plaintiffs filed a second consolidated amended class action complaint (the "Second Amended Complaint"), which added the former Company's Chief Legal Officer as a defendant. The Court denied the motion to dismiss the Second Amended Complaint on March 19, 2018. During the first quarter of fiscal 2019, the U.S. class actions lawsuit proceeded to discovery. On August 2, 2019, the Magistrate Judge issued a Report and Recommendation that the Court grant Defendants' motion for judgment on the pleadings dismissing the claims of Additional Plaintiffs Cho and Ulug. Plaintiffs filed an objection to the Report and Recommendation on August 16, 2019, and the defendants filed a response on August 30, 2019. All other proceedings, including plaintiffs' pending motion for class certification but excluding fact and expert discovery, are currently suspended pending the decision of the Second Circuit Court of Appeals in *Arkansas Teachers Retirement System et al. v. Goldman Sachs Group, Inc., et al.*, which involves an issue relevant to the motion for class certification.

On July 23, 2014, the plaintiffs in the putative Ontario class action filed a motion for certification and leave to pursue statutory misrepresentation claims. On November 16, 2015, the Ontario Superior Court of Justice issued an order granting the plaintiffs' motion for leave to file a statutory claim for misrepresentation. On December 2, 2015, the Company filed a notice of motion seeking leave to appeal this ruling. On January 22, 2016, the court postponed the hearing on the plaintiffs' certification motion to an undetermined date after asking the Company to file a motion to dismiss the claims of the U.S. plaintiffs for forum non conveniens. Before that motion was heard, the parties agreed to limit the class to purchasers who reside in Canada or purchased on the Toronto Stock Exchange. On November 15, 2018, the Court denied the Company's motion for leave to appeal the order granting the plaintiffs leave to file a statutory claim for misrepresentation. On February 5, 2019, the Court entered an order certifying a class comprised of persons (a) who purchased BlackBerry common shares between March 28, 2013, and September 20, 2013, and still held at least some of those shares as of September 20, 2013, and (b) who acquired those shares on a Canadian stock exchange or acquired those shares on any other stock exchange and were a resident of Canada when the shares were acquired. Notice of class certification was published on March 6, 2019. The Company filed its Statement of Defence on April 1, 2019, and discovery is proceeding.

On February 15, 2017, a putative employment class action was filed against the Company in the Ontario Superior Court of Justice. The Statement of Claim alleges that actions the Company took when certain if its employees decided to accept offers of employment from Ford Motor Company of Canada amounted to a wrongful termination of the employees' employment with the Company. The claim seeks (i) an unspecified quantum of statutory, contractual, or common law termination entitlements; (ii) punitive or breach of duty of good faith damages of CAD\$20,000,000, or such other amount as the Court finds appropriate, (iii) pre and post judgment interest, (iv) attorneys' fees and costs, and (v) such other relief as the Court deems just. The Court granted the plaintiffs' motion to certify the class action on May 27, 2019. The Company commenced a motion for leave to appeal the certification order on June 11, 2019. The court denied the motion for leave to appeal on September 17, 2019.

On February 4, 2019, a putative employment class action and California Private Attorney General Act claim was filed against the Company in the San Joaquin County Superior Court alleging the Company (i) failed to provide itemized wage statements in violation of California Labor Code Section 226(a); and (ii) failed to pay all wages due at termination in violation of California Labor Code Section 201. The complaint seeks statutory penalties, injunctive relief, interest, costs, and attorneys' fees. The Company filed its answer denying the allegations in the complaint on March 18, 2019, and discovery is proceeding. On August 22, 2019, the Company filed a Motion for Summary Adjudication of the named plaintiff's wage statement claims.

Other contingencies

In the first quarter of fiscal 2019, the Board approved the 2019 Executive Chair Grant. As part of the agreement, the Company's Executive Chair and CEO is entitled to receive a contingent performance-based cash award in the amount of \$90 million that will become earned and payable should the 10-day average closing price of the Company's common shares on the New York Stock Exchange reach \$30 before November 3, 2023. As the award is triggered by the Company's share price, it is considered stock-based compensation and accounted for as a share-based liability award. As at August 31, 2019, the liability recorded in association with this award is approximately \$1 million.

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In the second quarter of fiscal 2020, the Company received funds from claims filed with the Ministry of Innovation, Science and Economic Development Canada relating to its Strategic Innovation Fund program's investment in BlackBerry QNX. A portion of this amount may be repayable in the future under certain circumstances if certain terms and conditions are not met by the Company, which is not probable at this time.

(c) Concentrations in Certain Areas of the Company's Business

The Company attempts to ensure that most components essential to the Company's business are generally available from multiple sources; however, certain components are currently obtained from limited sources within a competitive market, which subjects the Company to supply, availability and pricing risks. The Company has also entered into various agreements for the supply of components and the manufacturing of its products; however, there can be no guarantee that the Company will be able to extend or renew these agreements on similar terms, or at all. Therefore, the Company remains subject to risks of supply shortages.

(d) Indemnifications

The Company enters into certain agreements that contain indemnification provisions under which the Company could be subject to costs and damages, including in the event of an infringement claim against the Company or an indemnified third party. Such intellectual property infringement indemnification clauses are generally not subject to any dollar limits and remain in effect for the term of the Company's agreements. To date, the Company has not encountered material costs as a result of such indemnifications.

The Company has entered into indemnification agreements with its current and former directors and executive officers. Under these agreements, the Company agreed, subject to applicable law, to indemnify its current and former directors and executive officers against all costs, charges and expenses reasonably incurred by such individuals in respect of any civil, criminal or administrative action that could arise by reason of their status as directors or officers. The Company maintains liability insurance coverage for the benefit of the Company and its current and former directors and executive officers. The Company has not encountered material costs as a result of such indemnifications in the current period. See the Company's Management Information Circular for fiscal 2019 for additional information regarding the Company's indemnification agreements with its current and former directors and executive officers.

12. LEASES

The Company has operating and finance leases primarily for corporate offices, research and development facilities, data centers and certain equipment. The Company's leases have remaining lease terms of between 1 year and 9 years, some of which may include options to extend the lease for up to 10 years, and some of which may include options to terminate the lease within one month.

The components of lease expense were as follows:

	Three Months Ended	Six Months Ended
	August 31, 2019	August 31, 2019
Operating lease cost, included in selling, marketing & administration	\$ 9	\$ 18
Finance lease cost		
Amortization of ROU assets, included in amortization	\$ 1	\$ 1
Interest on lease liabilities, included in investment income, net	—	—
Total finance lease cost	\$ 1	\$ 1

Supplemental cash flow information related to leases was as follows:

	Three Months Ended	Six Months Ended
	August 31, 2019	August 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Cash used in operating activities related to operating lease payments	\$ 12	\$ 23

BlackBerry Limited
Notes to the Consolidated Financial Statements

(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

During the three and six months ended August 31, 2019, the Company did not obtain any significant ROU assets in exchange for lease obligations. During the six months ended August 31, 2019, the Company incurred losses of \$2 million on the write-down of ROU assets (cost of \$5 million, accumulated amortization of \$3 million, and a net book value of approximately \$2 million).

Supplemental balance sheet information related to leases was as follows:

	As at	
	August 31, 2019	March 1, 2019 (adoption)
Operating leases		
Operating lease assets		
Operating lease ROU assets	\$ 145	\$ 161
Operating lease liabilities		
Accrued liabilities	33	36
Operating lease liabilities	135	153
Total operating lease liabilities	<u>\$ 168</u>	<u>\$ 189</u>
Finance leases		
Finance lease assets		
Property, plant and equipment	\$ 7	\$ 8
Accumulated depreciation	(5)	(5)
Property, plant and equipment, net	<u>\$ 2</u>	<u>\$ 3</u>
Finance lease liabilities		
Accrued liabilities	\$ 1	\$ 2
Other long-term liabilities	1	1
Total finance lease liabilities	<u>\$ 2</u>	<u>\$ 3</u>

BlackBerry Limited
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(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

	As at August 31, 2019
Weighted Average Remaining Lease Term	
Operating leases	5.8 years
Finance leases	1.5 years
Weighted Average Discount Rate	
Operating leases	3.5%
Finance leases	5.8%

Maturities of undiscounted lease liabilities were as follows:

	As at August 31, 2019	
	Operating Leases	Finance Leases
Fiscal year 2020 (excluding the six months ended August 31, 2019)	\$ 20	\$ 1
Fiscal year 2021	34	1
Fiscal year 2022	32	—
Fiscal year 2023	28	—
Fiscal year 2024	25	—
Thereafter	47	—
Total future minimum lease payments	186	2
Less:		
Imputed interest	(18)	—
Total	\$ 168	\$ 2

13. REVENUE AND SEGMENT DISCLOSURES

Revenue

The Company disaggregates revenue from contracts with customers based on geographical regions, timing of revenue recognition, and the major product and service types. The Company's revenue, classified by major geographic region in which the Company's customers are located, was as follows:

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
North America ⁽¹⁾	\$ 179	\$ 133	\$ 339	\$ 272
Europe, Middle East and Africa	47	53	108	105
Other regions	18	24	44	46
Total	\$ 244	\$ 210	\$ 491	\$ 423
North America ⁽¹⁾	73.4%	63.3%	69.0%	64.3%
Europe, Middle East and Africa	19.3%	25.3%	22.0%	24.8%
Other regions	7.3%	11.4%	9.0%	10.9%
Total	100.0%	100.0%	100.0%	100.0%

(1) North America includes all revenue from the Company's intellectual property arrangements, due to the global applicability of the patent portfolio and licensing arrangements thereof.

BlackBerry Limited
Notes to the Consolidated Financial Statements

(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

Total revenue, classified by product and service type, was as follows:

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
IoT	\$ 133	\$ 137	\$ 269	\$ 263
BlackBerry Cylance	35	—	67	—
Licensing	71	56	143	119
Other	5	17	12	41
Total	\$ 244	\$ 210	\$ 491	\$ 423

Internet of Things (“IoT”) includes revenue from the Company’s suite of security software products and services designed to secure endpoint communications for the IoT, including BlackBerry UEM, BlackBerry Dynamics, BlackBerry AtHoc, SecuSUITE and the technologies offered by BlackBerry QNX. IoT revenue is generated predominantly through software licenses, commonly bundled with support, maintenance and professional services.

BlackBerry Cylance includes revenue from the Company’s artificial intelligence and machine learning-based platform consisting of CylancePROTECT, CylanceOPTICS, professional services and other cybersecurity applications.

Licensing includes revenue from the Company’s intellectual property licensing arrangements, BBM Consumer licensing arrangement, and mobility licensing software arrangements, which include revenue from licensed hardware sales.

Other includes revenue associated with the Company’s legacy SAF business, relating to subscribers utilizing the Company’s legacy BlackBerry 7 and prior operating systems, as well as revenue relating to unspecified future software upgrade rights for devices previously sold by the Company and legacy handheld revenue associated with the release of previously accrued amounts when the Company determines it has no further performance obligations.

Revenue, classified by timing of recognition, was as follows:

	Three Months Ended		Six Months Ended	
	August 31, 2019	August 31, 2018	August 31, 2019	August 31, 2018
Products and services transferred over time	\$ 117	\$ 120	\$ 269	\$ 245
Products and services transferred at a point in time	127	90	222	178
Total	\$ 244	\$ 210	\$ 491	\$ 423

Revenue contract balances

The following table sets forth the activity in the Company’s revenue contract balances (both current and non-current) for the six months ended August 31, 2019:

	Accounts Receivable	Deferred Revenue	Deferred Commissions
Opening balance as at March 1, 2019	\$ 212	\$ 350	\$ 23
Increases due to invoicing of new or existing contracts, associated contract acquisition costs, or other	157	241	22
Decreases due to payment, fulfillment of performance obligations, or other	(152)	(235)	(18)
Increase, net	5	6	4
Closing balance as at August 31, 2019	\$ 217	\$ 356	\$ 27

BlackBerry Limited
Notes to the Consolidated Financial Statements

(In millions of United States dollars, except share and per share data, and except as otherwise indicated) (unaudited)

Transaction price allocated to the remaining performance obligations

The table below discloses the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied as at August 31, 2019 and the time frame in which the Company expects to recognize this revenue. The disclosure includes estimates of variable consideration, except when the variable consideration is a sales-based or usage-based royalty promised in exchange for a license of intellectual property.

	As at August 31, 2019			
	Less than 12 Months	12 to 24 Months	Thereafter	Total
Remaining performance obligations	\$ 304	\$ 102	\$ 62	\$ 468

Revenue recognized for performance obligations satisfied in prior periods

For the three and six months ended August 31, 2019, no revenue was recognized relating to performance obligations satisfied in a prior period (three and six months ended August 31, 2018 - \$5 million and \$11 million, respectively, in revenue recognized relating to the legacy handheld devices business).

Segment Disclosures

The Company reports segment information based on the “management” approach. The management approach designates the internal reporting used by the Chief Operating Decision Maker (“CODM”) for making decisions and assessing performance as a source of the Company’s reportable operating segments. The CODM, who is the Executive Chair and CEO, reviews financial information, makes decisions and assesses the performance of the Company as a single operating segment.

Geographical distribution of assets

Property, plant and equipment, intangible assets, operating lease ROU assets and goodwill, classified by geographic regions in which the Company’s assets are located, were as follows:

	As at			
	August 31, 2019		February 28, 2019	
	Property, Plant and Equipment, Intangible Assets, Operating Lease ROU assets and Goodwill	Total Assets	Property, Plant and Equipment, Intangible Assets and Goodwill	Total Assets
Canada	\$ 418	\$ 674	\$ 396	\$ 654
United States	2,208	3,092	2,178	3,089
Other	52	167	42	186
	<u>\$ 2,678</u>	<u>\$ 3,933</u>	<u>\$ 2,616</u>	<u>\$ 3,929</u>

Information about major customers

There were two customers and one customer that comprised more than 10% of revenue during the three and six months ended August 31, 2019, respectively (three and six months ended August 31, 2018 - one customer comprised more than 10% of revenue).

BLACKBERRY LIMITED

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE THREE AND SIX MONTHS ENDED AUGUST 31, 2019

September 24, 2019

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read together with the unaudited interim consolidated financial statements and the accompanying notes (the "Consolidated Financial Statements") of BlackBerry Limited (the "Company" or "BlackBerry") for the three and six months ended August 31, 2019, as well as the Company's audited consolidated financial statements and accompanying notes, and MD&A for the fiscal year ended February 28, 2019 (the "Annual MD&A"). The Consolidated Financial Statements are presented in U.S. dollars and have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP"). All financial information in this MD&A is presented in U.S. dollars, unless otherwise indicated.

The Company has prepared this MD&A with reference to *National Instrument 51-102* "Continuous Disclosure Obligations" of the Canadian Securities Administrators. Under the U.S./Canada Multijurisdictional Disclosure System, the Company is permitted to prepare this MD&A in accordance with the disclosure requirements of Canada, which are different from those of the United States. This MD&A provides information for the three and six months ended August 31, 2019 and up to and including September 24, 2019.

Additional information about the Company, including the Company's Annual Information Form for the fiscal year ended February 28, 2019 (the "AIF"), which is included in the Company's Annual Report on Form 40-F for the fiscal year ended February 28, 2019 (the "Annual Report"), can be found on SEDAR at www.sedar.com and on the U.S. Securities and Exchange Commission's website at www.sec.gov.

Cautionary Note Regarding Forward-Looking Statements

This MD&A contains forward-looking statements within the meaning of certain securities laws, including under the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws, including statements relating to:

- the Company's plans, strategies and objectives, including the anticipated benefits of its strategic initiatives and its intentions to increase, enhance and integrate its product and service offerings;
- the Company's expectations regarding revenue, billings and earnings for fiscal 2020;
- the Company's estimates of purchase obligations and other contractual commitments; and
- the Company's expectations with respect to the sufficiency of its financial resources.

The words "expect", "anticipate", "estimate", "may", "will", "should", "could", "intend", "believe", "target", "plan" and similar expressions are intended to identify forward-looking statements in this MD&A, including in the sections entitled "Business Overview -Strategy", "Business Overview- Products and Services", "Key Metrics - Recurring Revenue Percentage", "Results of Operations – Three months ended August 31, 2019 compared to three months ended August 31, 2018 - Revenue - U.S. GAAP Revenue by Product and Service", "Results of Operations – Three months ended August 31, 2019 compared to three months ended August 31, 2018 - Non-GAAP Revenue by Product and Service", "Results of Operations - Six months ended August 31, 2019 compared to six months ended August 31, 2018 - Net Income (Loss)" and "Financial Condition – Debenture Financing and Other Funding Sources". Forward-looking statements are based on estimates and assumptions made by the Company in light of its experience, historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate in the circumstances. Many factors could cause the Company's actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statements, including, without limitation, the factors discussed in the "Risk Factors" section of the AIF and the following:

- the Company's ability to enhance, develop, introduce or monetize products and services for the enterprise market in a timely manner with competitive pricing, features and performance;
- the Company's ability to maintain or expand its customer base for its software and services offerings to grow revenue or achieve sustained profitability;
- the intense competition faced by the Company;
- the occurrence or perception of a breach of the Company's network or product security measures, or an inappropriate disclosure of confidential or personal information could significantly harm its business;

- risks related to the Company's continuing ability to attract new personnel, retain existing key personnel and manage its staffing effectively;
- the Company's dependence on its relationships with resellers and channel partners; and
- risks related to acquisitions, divestitures, investments and other business initiatives, which may negatively affect the Company's results of operations.

All of these factors should be considered carefully, and readers should not place undue reliance on the Company's forward-looking statements. Any statements that are forward-looking statements are intended to enable the Company's shareholders to view the anticipated performance and prospects of the Company from management's perspective at the time such statements are made, and they are subject to the risks that are inherent in all forward-looking statements, as described above, as well as difficulties in forecasting the Company's financial results and performance for future periods, particularly over longer periods, given changes in technology and the Company's business strategy, evolving industry standards, intense competition and short product life cycles that characterize the industries in which the Company operates. See "Business Overview - Strategy" in this MD&A, as well as the "Narrative Description of the Business - Strategy" section in the AIF.

The Company has no intention and undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

Business Overview

The Company is a trusted security software and services company that provides enterprises and governments with the technology they need to secure the Internet of Things (the "IoT"). Based in Waterloo, Ontario, the Company is unwavering in its commitment to safety, cybersecurity and data privacy, and leads in key areas such as artificial intelligence ("AI"), endpoint security and management, encryption and embedded systems. The Company's common shares trade under the ticker symbol "BB" on the New York Stock Exchange and the Toronto Stock Exchange.

Strategy

The Company is widely recognized for productivity and security innovations, and the Company believes that it delivers the most secure endpoint management and communications solutions in the market. With these core strengths, the Company's broad portfolio of products and services is focused on serving enterprise customers, particularly in regulated industries.

The Company is focused on delivering an end-to-end software and services platform to secure the IoT. The Company leverages many elements of its extensive technology portfolio to extend best-in-class security and reliability to its solutions for the IoT, including unified endpoint management ("UEM"), cybersecurity solutions, embedded systems, crisis communications, enterprise applications, and related services, with hosting available on the Company's global, scalable, secure network, as well as in the cloud.

The Company intends to continue to increase and enhance its product and service offerings through both organic investments and strategic acquisitions. The Company's goal is to remain a leader in its target enterprise markets by continuing to extend the functionality of its secure platform and delivering innovative solutions focused on regulated industries and other strategic verticals.

Products and Services

The Company's core software and services offering is its end-to-end platform that comprises endpoint management capabilities, enterprise communication and collaboration software and safety-certified embedded solutions. The Company is developing BlackBerry Spark, a next-generation secure communications platform that will create and leverage trusted connections between endpoints. The Company expects a robust schedule of product launches in fiscal 2020.

The Company groups its portfolio of product and services offerings as follows: IoT, BlackBerry Cylance, Licensing and Other.

The Company's IoT business is comprised of the Company's suite of security software products and services designed to secure endpoint communications for the IoT, including BlackBerry UEM, BlackBerry Dynamics, BlackBerry AtHoc, SecuSUITE and the technologies offered by BlackBerry QNX. The IoT business generates revenue predominantly through software licenses, commonly bundled with support, maintenance and professional services. In fiscal 2019, the IoT products and services were included in the Company's Enterprise Software & Services ("Enterprise") and BlackBerry Technology Solutions ("BTS") business groupings.

BlackBerry UEM offers a “single pane of glass”, or unified console view, for managing and securing devices, applications, identity, content, and IoT endpoints across all leading operating systems. BlackBerry Dynamics offers a best-in-class development platform and secure container for mobile applications, including the Company's own enterprise applications such as BlackBerry Work and BlackBerry Connect for secure collaboration. BlackBerry AtHoc is a secure, networked crisis communications platform, and SecuSUITE is a secure voice and text messaging solution with advanced encryption and anti-eavesdropping capabilities.

The BlackBerry QNX unit is a global provider of real-time operating systems, middleware, development tools, and professional services for connected embedded systems in the automotive, medical, industrial automation and other markets. A leader in software for automotive electronics, BlackBerry QNX offers a growing portfolio of safety-certified, secure and reliable platform solutions and is focused on achieving design wins with automotive original equipment manufacturers, Tier 1 vendors and automotive semiconductor suppliers. These solutions include the BlackBerry QNX CAR Platform and the Neutrino operating system, among other technologies.

The Company's IoT offerings also include its BlackBerry Radar asset tracking solution, BlackBerry Workspaces electronic file synchronization and sharing platform, BlackBerry Jarvis code security testing platform, Paratek antenna tuning technology, BlackBerry Certicom cryptography and key management products, BlackBerry Messenger (“BBM”) Enterprise service, BlackBerry Spark Communication Services and BlackBerry Cybersecurity Services.

The BlackBerry Cylance business offers a leading AI and machine learning-based platform consisting of CylancePROTECT, an endpoint threat prevention solution that uses machine learning to prevent suspicious behavior and the execution of malicious code on an endpoint, and CylanceOPTICS, an endpoint detection and response solution that provides both visibility into and prevention of malicious activity on an endpoint. BlackBerry Cylance also offers CylanceGUARD, a managed detection and response offering that provides continuous threat hunting and monitoring, as well as professional services. The Company intends to integrate the intelligent cybersecurity capabilities of BlackBerry Cylance with BlackBerry Spark and BlackBerry QNX technologies, with an initial release of a combined BlackBerry UEM and BlackBerry Cylance product in early 2020.

The Licensing business includes the Company's patent licensing programs and its mobility software licensing arrangements, including the development and licensing of the Company's secure device software and the outsourcing to partners of all design, manufacturing, sales and customer support for BlackBerry-branded, and white label handsets.

The Company's Other business generates revenue from service access fees (“SAF”) charged to subscribers using the Company's legacy BlackBerry 7 and prior BlackBerry operating systems, as well as revenue relating to unspecified future software upgrade rights for devices previously sold by the Company.

Recent Developments

The Company continues to execute on its strategy in fiscal 2020 and announced the following achievements:

- Announced that Steve Capelli would transition to the role of Chief Revenue Officer and that Steve Rai would be promoted to the role of Chief Financial Officer;
- Announced that Matson Logistics has deployed the BlackBerry Radar-M solution across its entire fleet of domestic intermodal containers;
- Announced, along with DENSO Corporation, that the first integrated Human Machine Interface digital cockpit system with BlackBerry QNX technology has shipped in SUBARU vehicles;
- Launched the BlackBerry QNX Acoustics Management Platform 3.0, the latest version of its automotive acoustics software;
- Announced a deeper partnership with Jaguar Land Rover for the use of the Company's AI and machine learning technologies, BlackBerry QNX software and BlackBerry Cybersecurity Consulting services in the development of the automaker's next-generation vehicles;
- Appointed Lisa Disbrow to the Company's Board of Directors (the “Board”) and to the audit and risk management committee of the Board;
- Named as a Leader in Gartner's 2019 Magic Quadrant for Unified Endpoint Management Tools for the fourth consecutive year;
- Launched BlackBerry Intelligent Security, the first cloud-based solution that leverages the power of adaptive security, continuous authentication and artificial intelligence to enhance mobile endpoint security in zero trust environments;
- Entered into an agreement with SYNnex Corporation to distribute the BlackBerry Enterprise Mobility Suite in the United States and accelerate partner recruitment for the BlackBerry Enterprise Partner Program;
- Introduced CylanceGUARD, a managed detection and response solution that leverages BlackBerry Cylance security experts and its industry-leading native AI platform to provide continuous threat hunting and monitoring;

- Entered into a collaborative supply agreement expanding the Company's partnership with LG Electronics Inc. to accelerate the deployment of connected and autonomous vehicle technology for automotive OEMs and Tier 1 vendors;
- Announced that BlackBerry QNX Software is embedded in more than 150 million vehicles;
- Achieved Federal Risk and Authorization Management Program ("FedRAMP") Ready status for the BlackBerry Government Mobility Suite, a cloud-based endpoint management solution developed specifically for U.S. government agencies;
- Announced support of Canada's Digital Charter, aimed at protecting the privacy and data security of Canadians, and that the Company has been recognized by the Government of Canada as a benchmark for trusted technology;
- Announced that Forrester found that BlackBerry Cylance's AI-driven endpoint security products delivered a 99 percent return on investment;
- Announced that BlackBerry Cylance has completed an Australian Information Security Registered Assessors Program (IRAP) assessment to obtain certification as a security solutions provider to Australian federal government agencies;
- With WITTENSTEIN high integrity systems, announced a new embedded software platform that enables the development of safety-certified and mission-critical applications on heterogeneous system-on-chip processors;
- Launched BlackBerry Radar H2, a new intelligent, data-driven asset monitoring device that can help automate operations, improve utilization of trailers, containers, chassis and other remote assets, as well as ensure assets are safe and secure;
- Established BlackBerry Government Solutions, to accelerate the company's FedRAMP initiatives and deepen ties with U.S. federal agencies;
- BlackBerry Limited announced that the NATO Communications and Information (NCI) Agency has awarded a contract for BlackBerry's SecuSUITE® for Government to encrypt the conversations of its technology and cyber leaders;
- Announced that Verizon added BlackBerry Cylance's AI-driven antivirus security solutions to its Managed Security Services portfolio; and
- Introduced CylancePERSONA, the first proactive endpoint behavioral analytics solution.

Inducement Awards

In the first quarter of fiscal 2020, the Board approved an agreement to grant performance-based equity awards ("Inducement Awards") to the co-founders of Cylance covering up to 4,182,189 common shares. Up to 25%, 35% and 40% of the Inducement Awards may be earned at the end of the Company's 2020, 2021 and 2022 fiscal years, respectively, if certain performance conditions are met, and any earned amounts will vest at the end of fiscal 2022. The Company also notes that 75% of the awards eligible to vest in a given year are based on achievement of a billings goal and 25% are based on achievement of a contribution margin goal.

Non-GAAP Financial Measures

The Consolidated Financial Statements have been prepared in accordance with U.S. GAAP, and information contained in this MD&A is presented on that basis unless otherwise noted. On September 24, 2019, the Company announced financial results for the three and six months ended August 31, 2019, which included certain non-GAAP financial measures, including adjusted revenue, adjusted gross margin, adjusted gross margin percentage, adjusted EBITDA, adjusted EBITDA margin, adjusted income (loss) before income taxes, adjusted net income (loss) and adjusted earnings (loss) per share. The Company believes the presentation of these non-GAAP measures provides management and shareholders with important information regarding the Company's financial performance.

For the three months ended August 31, 2019, these measures were adjusted for the following (collectively, the "Q2 Fiscal 2020 Non-GAAP Adjustments") (all items pre-tax and after-tax):

- the Q2 Fiscal 2020 Debentures Fair Value Adjustment (as defined below under "Second Quarter Fiscal 2020 Summary Results of Operations – Financial Highlights – Debentures Fair Value Adjustment") of approximately \$23 million;
- restructuring charges from the Resource Allocation Program ("RAP") consisting of amounts associated with operating lease right-of-use ("ROU") assets, employee termination benefits, and certain other costs of approximately \$3 million;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately \$17 million;
- software deferred commission expense acquired but not recognized due to business combination accounting rules of approximately \$4 million;

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- stock compensation expense of approximately \$14 million;
- amortization of intangible assets acquired through business combinations of approximately \$36 million; and
- business acquisition and integration costs incurred through or as a result of business combinations of approximately \$2 million.

The Company believes that presenting non-GAAP financial measures that exclude the impact of those items enables it and its shareholders to assess the Company's operating performance relative to its consolidated financial results in prior and future periods on a more comparable basis. Readers are cautioned that adjusted revenue, adjusted gross margin, adjusted gross margin percentage, adjusted EBITDA, adjusted EBITDA margin percentage, adjusted income (loss) before income taxes, adjusted net income (loss), adjusted earnings (loss) per share and similar measures do not have any standardized meaning prescribed by U.S. GAAP and are therefore unlikely to be comparable to similarly titled measures reported by other companies. These non-GAAP financial measures should be considered in the context of the U.S. GAAP results, which are presented in the Consolidated Financial Statements and are described in this MD&A. A reconciliation from the most directly comparable U.S. GAAP measures to these non-GAAP financial measures for the three months ended August 31, 2019 was included in the Company's press release dated September 24, 2019, and is reflected in the table below:

Q2 Fiscal 2020 Non-GAAP Adjustments		For the Three Months Ended August 31, 2019 (in millions, except for per share amounts)					
	Income statement location	Revenue	Gross margin (before taxes)	Gross margin % (before taxes)	Income (loss) before income taxes	Net income (loss)	Basic earnings (loss) per share
As reported		\$ 244	\$ 176	72.1%	\$ (43)	\$ (44)	\$ (0.08)
Debentures fair value adjustment ⁽¹⁾	Debentures fair value adjustment	—	—	—%	(23)	(23)	
Restructuring charges ⁽²⁾	Cost of sales	—	1	0.4%	1	1	
Restructuring charges ⁽²⁾	Selling, marketing and administration	—	—	—%	2	2	
Software deferred revenue acquired ⁽³⁾	Revenue	17	17	1.8%	17	17	
Software deferred commission expense acquired	Selling, marketing and administration	—	—	—%	(4)	(4)	
Stock compensation expense	Cost of sales	—	1	0.4%	1	1	
Stock compensation expense	Research and development	—	—	—%	3	3	
Stock compensation expense	Selling, marketing and administration	—	—	—%	10	10	
Acquired intangibles amortization	Amortization	—	—	—%	36	36	
Business acquisition and integration costs	Selling, marketing and administration	—	—	—%	2	2	
Adjusted		<u>\$ 261</u>	<u>\$ 195</u>	<u>74.7%</u>	<u>\$ 2</u>	<u>\$ 1</u>	<u>\$ 0.00</u>

⁽¹⁾ See "Second Quarter Fiscal 2020 Summary Results of Operations – Financial Highlights - Debentures Fair Value Adjustment".

⁽²⁾ See "Second Quarter Fiscal 2020 Summary Results of Operations – Financial Highlights - Restructuring Charges".

⁽³⁾ \$16 million was included in BlackBerry Cylance revenue and \$1 million was included in IoT revenue.

For the six months ended August 31, 2019, these non-GAAP measures were adjusted for the following (collectively, the "Fiscal 2020 Non-GAAP Adjustments") (all items pre-tax and after-tax):

- the Fiscal 2020 Debentures Fair Value Adjustment (as defined below under "Second Quarter Fiscal 2020 Summary Results of Operations – Financial Highlights – Debentures Fair Value Adjustment") of approximately \$51 million;
- restructuring charges from RAP consisting of amounts associated with operating lease ROU assets, employee termination benefits, and certain other costs of approximately \$4 million;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately \$37 million;
- software deferred commission expense acquired but not recognized due to business combination accounting rules of approximately \$9 million;

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- stock compensation expense of approximately \$31 million;
- amortization of intangible assets acquired through business combinations of approximately \$71 million;
- business acquisition and integration costs incurred through or as a result of business combinations of approximately \$3 million; and
- income tax valuation allowance related to the acquisition of Cylance of approximately \$1 million.

Fiscal 2020 Non-GAAP Adjustments

For the Six Months ended August 31, 2019

(in millions, except for per share amounts)

	Income statement location	Revenue	Gross margin (before taxes)	Gross margin % (before taxes)	Income (loss) before income taxes	Net income (loss)	Basic earnings (loss) per share
As reported		\$ 491	\$ 353	71.9%	\$ (76)	\$ (79)	\$ (0.14)
Debentures fair value adjustment ⁽¹⁾	Debentures fair value adjustment	—	—	—%	(51)	(51)	
Restructuring charges ⁽²⁾	Cost of sales	—	2	0.4%	2	2	
Restructuring charges ⁽²⁾	Selling, marketing and administration	—	—	—%	2	2	
Software deferred revenue acquired ⁽³⁾	Revenue	37	37	1.9%	37	37	
Software deferred commission expense acquired	Selling, marketing and administration	—	—	—%	(9)	(9)	
Stock compensation expense	Cost of sales	—	2	0.4%	2	2	
Stock compensation expense	Research and development	—	—	—%	6	6	
Stock compensation expense	Selling, marketing and administration	—	—	—%	23	23	
Acquired intangibles amortization	Amortization	—	—	—%	71	71	
Business acquisition and integration costs	Selling, marketing and administration	—	—	—%	3	3	
Acquisition valuation allowance	Income taxes	—	—	—%	—	(1)	
Adjusted		<u>\$ 528</u>	<u>\$ 394</u>	<u>74.6%</u>	<u>\$ 10</u>	<u>\$ 6</u>	<u>\$ 0.01</u>

⁽¹⁾ See “Second Quarter Fiscal 2020 Summary Results of Operations – Financial Highlights - Debentures Fair Value Adjustment”.

⁽²⁾ See “Second Quarter Fiscal 2020 Summary Results of Operations – Financial Highlights - Restructuring Charges”.

⁽³⁾ \$35 million was included in BlackBerry Cylance revenue and \$2 million was included in IoT revenue.

Similarly, on September 28, 2018, the Company announced financial results for the three and six months ended August 31, 2018, which included certain non-GAAP financial measures, including adjusted revenue, adjusted gross margin, adjusted gross margin percentage, adjusted EBITDA, adjusted EBITDA margin percentage, adjusted income (loss) before income taxes, adjusted net income (loss) and adjusted earnings (loss) per share.

For the three months ended August 31, 2018, these measures were adjusted for the following (collectively, the “Q2 Fiscal 2019 Non-GAAP Adjustments”) (all items pre-tax and after tax):

- a fair value adjustment associated with the Company’s 3.75% unsecured convertible debentures (the “Debentures”) of approximately \$70 million (the “Q2 Fiscal 2019 Debentures Fair Value Adjustment”);
- restructuring charges from RAP and recoveries from the Cost Optimization and Resource Efficiency (“CORE”) program consisting of amounts associated with employee termination benefits, facilities, and certain other costs of approximately \$3 million on a net basis;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately \$4 million;
- stock compensation expense of approximately \$21 million;
- amortization of intangible assets acquired through business combinations of approximately \$22 million; and
- business acquisition and integration costs incurred through business combinations of approximately \$2 million.

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For the six months ended August 31, 2018, these measures were adjusted for the following (collectively, the "Fiscal 2019 Non-GAAP Adjustments") (all items pre-tax and after tax):

- a fair value adjustment associated with the Debentures of approximately \$42 million (the "Fiscal 2019 Debentures Fair Value Adjustment");
- restructuring charges from RAP and recoveries from the CORE program consisting of amounts associated with employee termination benefits, facilities, and certain other costs of approximately \$7 million on a net basis;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately \$8 million;
- stock compensation expense of approximately \$39 million;
- amortization of intangible assets acquired through business combinations of approximately \$44 million; and
- business acquisition and integration costs recovered incurred through business combinations of approximately \$1 million.

A reconciliation from the most directly comparable U.S. GAAP measures to these non-GAAP financial measures for the three and six months ended August 31, 2018 was included in the Company's press release, dated September 28, 2018, and is reflected in the table below.

		For the Three Months Ended August 31, 2018				For the Six Months Ended August 31, 2018			
		<i>(in millions)</i>				<i>(in millions)</i>			
	Income statement location	Revenue	Gross margin (before taxes)	Income (loss) before income taxes	Net income (loss)	Revenue	Gross margin (before taxes)	Income before income taxes	Net income
As reported		\$ 210	\$ 161	\$ 44	\$ 43	\$ 423	\$ 322	\$ (15)	\$ (17)
Debentures fair value adjustment	Debentures fair value adjustment	—	—	(70)	(70)	—	—	(42)	(42)
Restructuring charges	Cost of sales	—	1	1	1	—	1	1	1
Restructuring charges	Research and development	—	—	—	—	—	—	2	2
Restructuring charges	Selling, marketing and administration	—	—	2	2	—	—	4	4
Software deferred revenue acquired ⁽¹⁾	Revenue	4	4	4	4	8	8	8	8
Stock compensation expense	Cost of sales	—	1	1	1	—	2	2	2
Stock compensation expense	Research and development	—	—	3	3	—	—	6	6
Stock compensation expense	Selling, marketing and administration	—	—	17	17	—	—	31	31
Acquired intangibles amortization	Amortization	—	—	22	22	—	—	44	44
Business acquisition and integration costs recovered	Selling, marketing and administration	—	—	(2)	(2)	—	—	(1)	(1)
Adjusted		<u>\$ 214</u>	<u>\$ 167</u>	<u>\$ 22</u>	<u>\$ 21</u>	<u>\$ 431</u>	<u>\$ 333</u>	<u>\$ 40</u>	<u>\$ 38</u>

⁽¹⁾ Included in IoT revenue.

The Company also reported adjusted EBITDA and adjusted EBITDA margin percentage, as presented in the tables below, for the three and six months ended August 31, 2019 of \$20 million and 8%, and \$43 million and 8%, respectively. These are non-GAAP financial measures that do not have any standardized meaning as prescribed by U.S. GAAP and are therefore unlikely to be comparable to similar measures presented by other companies.

	For the Three Months Ended August 31, 2019 <i>(in millions)</i>	For the Six Months Ended August 31, 2019 <i>(in millions)</i>
Operating loss	\$ (43)	\$ (79)
Non-GAAP adjustments to operating loss		
Debentures fair value adjustment	(23)	(51)
Restructuring charges	3	4
Software deferred revenue acquired	17	37
Software deferred commission acquired	(4)	(9)
Stock compensation expense	14	31
Acquired intangibles amortization	36	71
Business acquisition and integration costs	2	3
Total non-GAAP adjustments to operating loss	45	86
Non-GAAP operating income	2	7
Amortization	54	107
Acquired intangibles amortization	(36)	(71)
Adjusted EBITDA	\$ 20	\$ 43
Adjusted revenue (per above)	261	528
Adjusted EBITDA margin percentage	8%	8%

Adjusted EBITDA and adjusted EBITDA margin percentage for the three and six months ended August 31, 2018 are reflected in the table below:

	For the Three Months Ended August 31, 2018 <i>(in millions)</i>	For the Six Months Ended August 31, 2018 <i>(in millions)</i>
Operating income (loss)	\$ 39	\$ (26)
Non-GAAP adjustments to operating income (loss)		
Debentures fair value adjustment	(70)	(42)
Restructuring charges	3	7
Software deferred revenue acquired	4	8
Stock compensation expense	21	39
Acquired intangibles amortization	22	44
Business acquisition and integration costs recovered	(2)	(1)
Total non-GAAP adjustments to operating income (loss)	(22)	55
Non-GAAP operating income	17	29
Amortization	38	79
Acquired intangibles amortization	(22)	(44)
Adjusted EBITDA	\$ 33	\$ 64
Adjusted revenue (per above)	214	431
Adjusted EBITDA margin percentage	15%	15%

The Company also reported free cash flow as described in "Second Quarter Fiscal 2020 Summary Results of Operations - Free Cash Flow", below.

Key Metrics

The Company regularly monitors a number of financial and operating metrics, including the following key metrics, in order to measure the Company's current performance and estimate future performance. Readers are cautioned that recurring revenue percentage, annual recurring revenue ("ARR") and dollar-based net retention rate ("DBNRR") do not have any standardized meaning prescribed by U.S. GAAP and are therefore unlikely to be comparable to similarly titled measures reported by other companies.

Recurring revenue percentage

The Company defines recurring revenue percentage as subscription, license and support revenue (which includes revenue relating to support for perpetual licenses), less IP licensing and professional services, for the period divided by total software and services revenue for the period. The Company uses recurring revenue percentage to provide visibility into the revenue expected to be recognized in the current and future periods.

Total software and services revenue, excluding IP licensing and professional services, was greater than 90% recurring in the second quarter of fiscal 2020. Total software and services includes IoT, BlackBerry Cylance and Licensing.

The Company expects approximately 90% of total software and services revenue, excluding IP licensing and professional services, to be recurring for the remainder of fiscal 2020.

Annual Recurring Revenue

The Company defines ARR as the annualized value of all active subscription contracts as of the end of the reporting period. The Company uses ARR as an indicator of business momentum for the BlackBerry Cylance product line.

BlackBerry Cylance ARR was approximately \$170 million in the second quarter of fiscal 2020, an increase of approximately \$30 million, or 21%, compared to approximately \$140 million in the second quarter of fiscal 2019.

Dollar-Based Net Retention Rate

The Company defines DBNRR as the percentage of total annual contract value ("ACV") from its subscription customer base at the end of a trailing 12-month period over the ACV of the same tranche of customers at the beginning of that 12-month period. The Company uses DBNRR to evaluate the long-term value of BlackBerry Cylance's customer relationships, measuring the ability of the business to retain and expand recurring revenue from its existing customer base.

BlackBerry Cylance DBNRR was greater than 100% in the second quarter of fiscal 2020 and in the second quarter of fiscal 2019.

Accounting Policies and Critical Accounting Estimates

There have been no changes to the Company's accounting policies or critical accounting estimates from those described under "Accounting Policies and Critical Accounting Estimates" in the Annual MD&A, with the exception of those noted below.

Leases

On March 1, 2019, the Company adopted the new standard on leases, Accounting Standards Codification 842 ("ASC 842"). The Company determines if an arrangement is or contains a lease at inception. Such determination requires consideration of all relevant facts and circumstances. Operating leases are included in operating lease right-of-use ("ROU") assets, accrued liabilities, and operating lease liabilities on the Company's consolidated balance sheets. Finance leases are included in property, plant and equipment, net, accrued liabilities, and other long-term liabilities on the Company's consolidated balance sheets.

Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the commencement date. As most of the Company's leases do not provide an implicit discount rate, the Company primarily uses its incremental borrowing rate, based on the information available at the commencement date of the lease, in determining the present value of future payments. The Company's incremental borrowing rate is determined based on the rate of interest that the Company would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term in a similar economic environment. The operating lease ROU asset includes any lease payments made, lease incentives and initial direct costs incurred. The lease terms include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for minimum

lease payments is recognized on a straight-line basis over the lease term. In some cases, the Company has index-based variable lease payments for which an estimated rate is applied to the initial lease payment to determine future lease payment amounts.

The Company has building, car and data center lease agreements with lease and non-lease components that are accounted for separately. The Company has elected the short-term lease exemption, which allows the Company to not apply the recognition requirements to lease terms of 12 months or less on commencement date. The Company also elected the package of practical expedients where lease classification, embedded leases, and initial direct costs are not reassessed upon adoption of ASC 842.

For additional information concerning the Company's leases, see Note 12 to the Consolidated Financial Statements.

Derivative financial instruments

On March 1, 2019, the Company adopted the new Accounting Standards Update ("ASU") 2017-12 related to accounting for hedging activities. The Company uses derivative financial instruments, including forward contracts and options, to hedge certain foreign currency exposures. The Company does not use derivative financial instruments for speculative purposes.

The Company records all derivative instruments at fair value on the consolidated balance sheets. The fair value of these instruments is calculated based on notional and exercise values, transaction rates, market quoted currency spot rates, forward points, volatilities and interest rate yield curves. The accounting for changes in the fair value of a derivative depends on the intended use of the derivative instrument and the resulting designation.

For derivative instruments designated as cash flow hedges, the entire change in the value of the hedging instrument included in the assessment of hedge effectiveness is initially reported as a component of accumulated other comprehensive income (loss) ("AOCI"), net of tax, and subsequently reclassified into income in the same period or periods in which the hedged item affects income. In order for the Company to receive hedge accounting treatment, the cash flow hedge must be highly effective in offsetting changes in the value of the hedged item and the relationship between the hedging instrument and the associated hedged item must be formally documented at the inception of the hedge relationship. Hedge effectiveness is formally assessed, both at hedge inception and on an ongoing basis, to determine whether the derivatives used in hedging transactions are highly effective in offsetting changes in the value of the hedged items and whether they are expected to continue to be highly effective in future periods.

The Company formally documents relationships between hedging instruments and associated hedged items. This documentation includes: identification of the specific foreign currency asset, liability or forecasted transaction being hedged; the nature of the risk being hedged; the hedge objective; and the method of assessing hedge effectiveness. If an anticipated transaction is deemed no longer likely to occur, the corresponding derivative instrument is de-designated as a hedge and any associated unrealized gains and losses in AOCI are recognized in income at that time. Any future changes in the fair value of the instrument are recognized in current income.

For any derivative instruments that do not meet the requirements for hedge accounting, or for any derivative instruments for which hedge accounting is not elected, the changes in fair value of the instruments are recognized in income in the current period and will generally offset the changes in the U.S. dollar value of the associated asset, liability or forecasted transaction.

Issued Accounting Pronouncements

In June 2016, the FASB issued guidance related to the measurement of credit losses on financial instruments, ASU 2016-13. This guidance replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses, requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates, and requires entities to estimate an expected lifetime credit loss on its financial assets. The guidance is effective for interim and annual periods beginning after December 15, 2019. The Company will adopt this guidance in the first quarter of fiscal 2021 and is currently evaluating the impact that the adoption will have on its results of operations, financial position and disclosures.

Second Quarter Fiscal 2020 Summary Results of Operations

The following table sets forth certain unaudited consolidated statements of operations data for the quarter ended August 31, 2019 compared to the quarter ended August 31, 2018 under U.S. GAAP.

	For the Three Months Ended					
	(in millions, except for share and per share amounts)					
	August 31, 2019		August 31, 2018		Change	
Revenue ⁽¹⁾⁽²⁾	\$ 244	100.0%	\$ 210	100.0%	\$ 34	
Gross margin ⁽¹⁾⁽²⁾	176	72.1%	161	76.7%	15	
Operating expenses ⁽¹⁾⁽²⁾	219	89.8%	122	58.1%	97	
Income before income taxes	(43)	(17.6%)	44	21.0%	(87)	
Provision for income taxes	1	0.4%	1	0.5%	—	
Net income	<u>\$ (44)</u>	<u>(18.0%)</u>	<u>\$ 43</u>	<u>20.5%</u>	<u>\$ (87)</u>	
Earnings (loss) per share - reported						
Basic	<u>\$ (0.08)</u>		<u>\$ 0.08</u>		<u>\$ (0.16)</u>	
Diluted ⁽³⁾	<u>\$ (0.10)</u>		<u>\$ (0.04)</u>		<u>\$ (0.06)</u>	
Weighted-average number of shares outstanding (000s)						
Basic ⁽⁴⁾	552,343		537,299			
Diluted ⁽³⁾	612,843		597,799			

- (1) See "Non-GAAP Financial Measures" for the impact of the Q2 Fiscal 2020 Non-GAAP Adjustments on adjusted revenue, adjusted gross margin and adjusted operating expenses in the second quarter of fiscal 2020.
- (2) See "Non-GAAP Financial Measures" for the impact of the Q2 Fiscal 2019 Non-GAAP Adjustments on adjusted revenue, adjusted gross margin and adjusted operating expenses in the second quarter of fiscal 2019.
- (3) Diluted loss per share on a U.S. GAAP basis for the second quarter of fiscal 2020 and fiscal 2019 does not include the dilutive effect of in-the-money options and RSUs that will be settled upon vesting by the issuance of new common shares, as it would be anti-dilutive. See Note 9 to the Consolidated Financial Statements for the Company's calculation of diluted loss per share.
- (4) Basic loss per share on a U.S. GAAP basis for the second quarter of fiscal 2020 includes approximately 4,182,189 common shares to be issued in equal instalments on the next three anniversary dates of the Cylance acquisition, in consideration for the acquisition. There are no service or other requirements associated with the issuance of these shares.

Financial Highlights

In the second quarter of fiscal 2020, the Company recognized revenue of \$244 million and incurred a loss of \$44 million, or \$0.08 basic loss per share on a U.S. GAAP basis. The Company incurred a diluted loss per share of \$0.10 on a U.S. GAAP basis. The Company recognized adjusted revenue of \$261 million and adjusted net income of \$1 million, or adjusted earnings of \$0.00 per share, on a non-GAAP basis. See also "Non-GAAP Financial Measures".

The Company had approximately \$938 million in cash, cash equivalents and investments as of August 31, 2019.

Free Cash Flow

Free cash flow is a measure of liquidity calculated as operating cash flow minus capital expenditures. Free cash flow does not have any standardized meaning as prescribed by U.S. GAAP and therefore may not be comparable to similar measures presented by other companies. For the three months ended August 31, 2019, the Company's net cash provided by operating activities was \$18 million and capital expenditures were \$4 million, resulting in the Company reporting free cash flow of \$14 million. Free cash flow was \$17 million for the three months ended August 31, 2019 before considering the impact of acquisition and integration expenses, restructuring costs and legal proceedings.

Debentures Fair Value Adjustment

As previously disclosed, the Company elected the fair value option to account for the Debentures; therefore, periodic revaluation has been and continues to be required under U.S. GAAP. The fair value adjustment does not impact the terms of the Debentures such as the face value, the redemption features or the conversion price.

In the second quarter of fiscal 2020, the fair value of the Debentures decreased by approximately \$17 million. For the three months ended August 31, 2019, the Company recorded a non-cash charge relating to changes in fair value from instrument-specific credit risk of \$6 million in AOCI and non-cash income relating to changes in fair value from non-credit components of \$23 million (pre-tax and after tax) (the "Q2 Fiscal 2020 Debentures Fair Value Adjustment") in the Company's consolidated statements of operations. For the six months ended August 31, 2019, the Company recorded a non-cash charge relating to changes in fair value from instrument-specific credit risk of \$13 million in AOCI and non-cash income relating to changes in fair value from non-credit components of \$51 million (pre-tax and after tax) (the "Fiscal 2020 Debentures Fair Value Adjustment") in the Company's consolidated statements of operations.

Restructuring Charges

During the first quarter of fiscal 2016, the Company commenced the RAP with the objectives of (i) reallocating resources to capitalize on growth opportunities, (ii) providing the operational ability to better leverage contract research and development services relating to its handheld devices, and (iii) reaching sustainable profitability. Other charges and cash costs may occur as programs are implemented or changes are completed. During the three and six months ended August 31, 2019, the Company incurred approximately \$3 million and \$4 million, respectively, in total pre-tax charges related to this program.

Results of Operations - Three months ended August 31, 2019 compared to three months ended August 31, 2018

Revenue

U.S. GAAP Revenue by Product and Service

Comparative breakdowns of revenue by product and service on a U.S. GAAP basis are set forth below.

	For the Three Months Ended (in millions)					
	August 31, 2019		August 31, 2018		Change	
Revenue by Product and Service						
IoT	\$ 133	54.6%	\$ 137	65.2%	\$ (4)	(2.9)%
BlackBerry Cylance	35	14.3%	—	—%	35	— %
Licensing	71	29.1%	56	26.7%	15	26.8 %
Other	5	2.0%	17	8.1%	(12)	(70.6)%
	<u>\$ 244</u>	<u>100.0%</u>	<u>\$ 210</u>	<u>100.0%</u>	<u>\$ 34</u>	<u>16.2 %</u>

IoT

IoT revenue was \$133 million, or 54.6% of revenue, in the second quarter of fiscal 2020, a decrease of \$4 million compared to \$137 million, or 65.2% of revenue, in the second quarter of fiscal 2019. The decrease in IoT revenue of \$4 million was primarily due to a lower number of Enterprise software licenses sold due to the reorganization of the Enterprise sales force, which caused a delay in developing and closing Enterprise sales transactions, partially offset by an increase in revenue from development seat, professional services and royalty revenue from BlackBerry QNX.

BlackBerry Cylance

BlackBerry Cylance revenue was \$35 million, or 14.3% of revenue, in the second quarter of fiscal 2020. The increase in BlackBerry Cylance revenue of \$35 million was due to the acquisition of Cylance in the fourth quarter of fiscal 2019; no revenue was reported in the prior year period.

Licensing

Licensing revenue was \$71 million, or 29.1% of revenue, in the second quarter of fiscal 2020, an increase of \$15 million compared to \$56 million, or 26.7% of revenue, in the second quarter of fiscal 2019. The increase in Licensing revenue of \$15 million was primarily due to higher revenue from IP licensing arrangements, partially offset by a decrease in licensing revenue related to the BBM Consumer licensing arrangement.

The Company expects Licensing revenue to grow in fiscal 2020 over the prior fiscal year. The Company previously stated that it expected Licensing revenue to decline by approximately 5% in fiscal 2020. The Company's expectation has been revised as certain IP licensing arrangements were completed earlier than expected. The Company also expects IP licensing revenue in the second half of fiscal 2020 to be stronger than in the first half of the fiscal year.

Other

Other revenue includes revenue from SAF and the Company's legacy handheld devices business. Other revenue was \$5 million related to SAF, or 2.0% of revenue, in the second quarter of fiscal 2020, compared to \$17 million, or 8.1% of revenue, in the second quarter of fiscal 2019, representing a decrease of \$12 million. The decrease in Other revenue of \$12 million was primarily attributable to a decrease in SAF revenue and revenue from the legacy handheld business. The decrease in SAF revenue, which is generated from users of BlackBerry 7 and prior BlackBerry operating systems is primarily attributable to a lower number of BlackBerry 7 users and lower revenue from those users compared to the second quarter of fiscal 2019. The decrease in revenue from the legacy handheld business is primarily attributable to the release of previously accrued amounts in the second quarter of fiscal 2019 when the Company determined it had no further performance obligations.

U.S. GAAP Revenue by Geography

Comparative breakdowns of the geographic regions on a U.S. GAAP basis are set forth in the following table:

	For the Three Months Ended (in millions)					
	August 31, 2019		August 31, 2018		Change	
Revenue by Geography						
North America	\$ 179	73.4%	\$ 133	63.3%	\$ 46	34.6 %
Europe, Middle East and Africa	47	19.3%	53	25.3%	(6)	(11.3)%
Other regions	18	7.3%	24	11.4%	(6)	(25.0)%
	<u>\$ 244</u>	<u>100.0%</u>	<u>\$ 210</u>	<u>100.0%</u>	<u>\$ 34</u>	<u>16.2 %</u>

North America Revenue

Revenue in North America was \$179 million, or 73.4% of revenue in the second quarter of fiscal 2020, reflecting an increase of \$46 million compared to \$133 million, or 63.3% of revenue, in the second quarter of fiscal 2019. The increase in revenue is primarily due to increases in BlackBerry Cylance and Licensing revenue due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service", partially offset by a decrease in Other revenue due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service".

Europe, Middle East and Africa Revenue

Revenue in Europe, Middle East and Africa was \$47 million or 19.3% of revenue in the second quarter of fiscal 2020, reflecting a decrease of \$6 million compared to \$53 million or 25.3% of revenue in the second quarter of fiscal 2019. The decrease in revenue is primarily due to decreases in Other and IoT revenue, partially offset by an increase in Cylance revenue. The decrease in Other revenue is due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service". The decrease in IoT revenue is primarily attributable to a decrease in royalty revenue, perpetual licenses sold and professional services revenue. The increase in BlackBerry Cylance revenue is due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service".

Other Regions Revenue

Revenue in other regions was \$18 million or 7.3% of revenue in the second quarter of fiscal 2020, reflecting a decrease of \$6 million compared to \$24 million or 11.4% of revenue in the second quarter of fiscal 2019. The decrease in revenue is primarily due to a decrease in Licensing and Other revenue, partially offset by an increase in BlackBerry Cylance revenue. The decrease in Licensing revenue is primarily due to the decrease in revenue from mobility licensing arrangements. The decrease in Other revenue and increase in BlackBerry Cylance revenue are due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service".

Non-GAAP Revenue by Product and Service

Comparative breakdowns of revenue by product and service on a non-GAAP basis are set forth below.

	For the Three Months Ended (in millions)								
	August 31, 2019		August 31, 2018		Change				
Revenue by Product and Service									
IoT ⁽¹⁾	\$	134	51.4%	\$	141	65.9%	\$	(7)	(5.0)%
BlackBerry Cylance ⁽¹⁾		51	19.5%		—	—%		51	— %
Licensing		71	27.2%		56	26.2%		15	26.8 %
Other		5	1.9%		17	7.9%		(12)	(70.6)%
	\$	261	100.0%	\$	214	100.0%	\$	47	22.0 %

⁽¹⁾ See "Non-GAAP Financial Measures" for the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments made to BlackBerry Cylance and IoT.

The Company expects non-GAAP total Company revenue growth of between 23% and 25% in fiscal 2020 over the prior fiscal year. The Company previously stated that it expected non-GAAP total Company revenue growth of between 23% and 27% in fiscal 2020. The Company's expectation has been revised primarily due to a reorganization of the Enterprise sales force, which caused a delay in developing and closing Enterprise sales transactions. The Company continues to expect double-digit percentage billings growth in fiscal 2020 over the prior fiscal year.

The Company previously stated that it expected year-over-year total non-GAAP software and services revenue growth of between 8% and 10%, excluding revenue growth to BlackBerry Cylance. The Company expects this growth rate to be lower than previously expected due to the reasons noted above for Enterprise impacting non-GAAP total Company revenue growth.

IoT

IoT non-GAAP revenue was \$134 million, or 51.4% of revenue, in the second quarter of fiscal 2020, a decrease of \$7 million compared to \$141 million, or 65.9% of revenue, in the second quarter of fiscal 2019. IoT non-GAAP revenue decreased due to the reasons described above in "U.S. GAAP Revenue by Product and Service" and due to a decrease of \$3 million in the non-GAAP adjustment of deferred software revenue acquired to \$1 million in the second quarter of fiscal 2020 from \$4 million in the second quarter of fiscal 2019,

The Company previously stated that it expected non-GAAP IoT revenue to increase by 12% to 16% in fiscal 2020. The Company expects this growth rate to be lower than previously expected primarily due to the reasons noted above for Enterprise impacting non-GAAP total Company revenue growth. The Company now expects Enterprise non-GAAP revenue growth of less than 12% in fiscal 2020. The Company continues to expect BTS revenue growth of a mid to high teen percentage in fiscal 2020 over the prior fiscal year.

The Company previously stated that it expected sequential Enterprise non-GAAP revenue growth through the remainder of fiscal 2020 due in part to expected product launches related to BlackBerry Spark. Enterprise non-GAAP revenue decreased in the second quarter of fiscal 2020 compared to the first quarter of fiscal 2020 primarily due to the reasons noted above for Enterprise impacting non-GAAP total Company revenue growth. The Company expects modest sequential growth in Enterprise non-GAAP revenue for the remainder of fiscal 2020.

BlackBerry Cylance

As the Company acquired Cylance at the end of fiscal 2019, no revenue was reported in the second quarter of fiscal 2019. BlackBerry Cylance non-GAAP revenue was \$51 million, or 19.5% of revenue, in the second quarter of fiscal 2020.

Cylance recorded U.S. GAAP revenue of \$41 million for the three months ended August 31, 2018. After removing the effect of the purchase accounting related adjustment, BlackBerry Cylance non-GAAP revenue was \$51 million for the three months ended August 31, 2019, representing an increase of \$10 million, or 24.4% over the prior year period.

The Company continues to expect BlackBerry Cylance non-GAAP revenue growth of between 25% and 30% in fiscal 2020 over an annualized base of approximately \$170 million.

Licensing

Licensing revenue was \$71 million, or 27.2% of revenue, in the second quarter of fiscal 2020, an increase of \$15 million compared to \$56 million, or 26.2% of revenue from the second quarter of fiscal 2019. Licensing revenue increased due to the reasons described above in "U.S. GAAP Revenue by Product and Service".

Other

Other revenue was \$5 million related to SAF, or 1.9% of revenue, in the second quarter of fiscal 2020, compared to \$17 million, or 7.9% of revenue, in the second quarter of fiscal 2019, representing a decrease of \$12 million. Other revenue decreased primarily due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service".

Gross Margin

Consolidated Gross Margin

Consolidated gross margin increased by \$15 million to approximately \$176 million in the second quarter of fiscal 2020 from \$161 million in the second quarter of fiscal 2019. The increase was primarily due to an increase in gross margin associated with Licensing and BlackBerry Cylance, partially offset by a decrease in gross margin associated with Other and IoT.

The increase in gross margin associated with Licensing and BlackBerry Cylance is primarily due to the increase in revenue discussed above in "U.S. GAAP Revenue by Product and Service". The decrease in gross margin associated with Other is primarily due to the decline in SAF revenue discussed above in "U.S. GAAP Revenue by Product and Service", as the cost of goods sold associated with SAF was consistent in the second quarter of fiscal 2020 and the second quarter of fiscal 2019 due to certain fixed costs associated with SAF infrastructure and the decrease in gross margin associated with the legacy handheld business was primarily due to the decline in revenue discussed above in "U.S. GAAP Revenue by Product and Service". The decrease in gross margin associated with IoT is primarily due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service".

Consolidated Gross Margin Percentage

Consolidated gross margin percentage decreased by 4.6%, to approximately 72.1% of consolidated revenue in the second quarter of fiscal 2020 from 76.7% of consolidated revenue in the second quarter of fiscal 2019. The decrease was primarily due to lower gross margin percentage associated with BlackBerry Cylance, which has a higher proportion of revenue related to professional services.

Operating Expenses

The table below presents a comparison of research and development, selling, marketing and administration, and amortization expense for the quarter ended August 31, 2019, compared to the quarter ended May 31, 2019 and the quarter ended August 31, 2018. The Company believes it is also meaningful to provide a sequential comparison between the second quarter of fiscal 2020 and the first quarter of fiscal 2020.

	For the Three Months Ended (in millions)					
	August 31, 2019		May 31, 2019		August 31, 2018	
		% of Revenue		% of Revenue		% of Revenue
Revenue	\$ 244		\$ 247		\$ 210	
Operating expenses						
Research and development ⁽¹⁾⁽²⁾⁽³⁾	\$ 62	25.4 %	\$ 71	28.7 %	\$ 51	24.3 %
Selling, marketing and administration ⁽¹⁾⁽²⁾⁽³⁾	132	54.1 %	121	49.0 %	106	50.5 %
Amortization ⁽¹⁾⁽²⁾⁽³⁾	48	19.7 %	49	19.8 %	35	16.7 %
Debentures fair value adjustment ⁽¹⁾⁽²⁾⁽³⁾	(23)	(9.4)%	(28)	(11.3)%	(70)	(33.3)%
Total	\$ 219	89.8 %	\$ 213	86.2 %	\$ 122	58.1 %

(1) See "Non-GAAP Financial Measures" for the impact of the Q2 Fiscal 2020 Non-GAAP Adjustments on adjusted operating expenditures in the second quarter of fiscal 2020.

(2) See "Non-GAAP Financial Measures" for the impact of the Q2 Fiscal 2019 Non-GAAP Adjustments on adjusted operating expenditures in the second quarter of fiscal 2019.

(3) In the first quarter of fiscal 2020, the Company recognized non-cash income associated with a change in the fair value of the Debentures of approximately \$28 million (the "Q1 Fiscal 2020 Debentures Fair Value Adjustment"), software deferred commission acquired of \$5 million in selling, marketing and administration expense, stock compensation expense of \$3 million and \$13 million in research and development and selling, marketing and administration expenses, respectively, acquired intangibles amortization of \$35 million and business acquisition and integration costs of \$1 million in selling, marketing and administration expense (collectively, the "Q1 Fiscal 2020 Non-GAAP Adjustments").

Operating expenses increased by \$6 million, or 2.8%, to \$219 million, or 89.8% of revenue, in the second quarter of fiscal 2020, compared to \$213 million, or 86.2% of revenue, in the first quarter of fiscal 2020. The increase was primarily attributable to costs associated with a direct IP licensing arrangement and the difference between the Q2 Fiscal 2020 Debentures Fair Value Adjustment and Q1 Fiscal 2020 Debentures Fair Value Adjustment, partially offset by a decrease in variable incentive plan, salaries and benefits expenses and stock compensation expenses.

After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q1 Fiscal 2020 Non-GAAP Adjustments, non-GAAP operating expenses decreased by \$1 million. The decrease was primarily attributable to a decrease in variable incentive plan and salaries and benefits expenses, partially offset by costs associated with a direct IP licensing arrangement.

Operating expenses increased by \$97 million, or 79.5%, to \$219 million or 89.8% of revenue in the second quarter of fiscal 2020, compared to approximately \$122 million or 58.1% of revenue in the second quarter of fiscal 2019. The increase was primarily attributable to the difference between the Q2 Fiscal 2020 Debentures Fair Value Adjustment and Q2 Fiscal 2019 Debentures Fair Value Adjustment, amortization expense, costs associated with a direct IP licensing arrangement and an increase in salaries and benefits expense primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019, partially offset by a decrease in stock compensation expense and claims filed with the Ministry of Innovation, Science and Economic Development Canada relating to its Strategic Innovation Fund program's investment in BlackBerry QNX.

After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments, non-GAAP operating expenses increased by \$43 million in the second quarter of fiscal 2020, compared to the second quarter of fiscal 2019. The increase was primarily attributable to costs associated with a direct IP licensing arrangement, an increase in salaries and benefits expense, marketing and advertising costs and infrastructure costs primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019, partially offset by claims filed with the Ministry of Innovation, Science and Economic Development Canada relating to its Strategic Innovation Fund program's investment in BlackBerry QNX.

Research and Development Expenses

Research and development expenses consist primarily of salaries and benefits for technical personnel, new product development costs, travel expenses, office and building costs, infrastructure costs and other employee costs.

Research and development increased by \$11 million, or 21.6%, to \$62 million in the second quarter of fiscal 2020 compared to \$51 million in the second quarter of fiscal 2019. After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments, non-GAAP research and development expenses increased by \$11 million. The increase was primarily attributable to an increase in salaries and benefits expense, professional services and infrastructure costs primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019, partially offset by claims filed with the Ministry of Innovation, Science and Economic Development Canada relating to its Strategic Innovation Fund program's investment in BlackBerry QNX.

Selling, Marketing and Administration Expenses

Selling, marketing and administration expenses consist primarily of marketing, advertising and promotion, salaries and benefits, external advisory fees, information technology costs, office and related staffing infrastructure costs and travel expenses.

Selling, marketing and administration expenses increased by \$26 million, or 24.5%, to \$132 million in the second quarter of fiscal 2020 compared to \$106 million in the second quarter of fiscal 2019. After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments, non-GAAP selling, marketing and administration expenses increased by \$33 million. The increase was primarily attributable to costs associated with a direct IP licensing arrangement, an increase in salaries and benefits expense and marketing and advertising costs primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019.

Amortization Expense

The table below presents a comparison of amortization expense relating to property, plant and equipment and intangible assets recorded as amortization or cost of sales for the second quarter of fiscal 2020 compared to the second quarter of fiscal 2019. Intangible assets are comprised of patents, licenses and acquired technology.

	For the Three Months Ended (in millions)					
	Included in Amortization			Included in Cost of Sales		
	August 31, 2019	August 31, 2018	Change	August 31, 2019	August 31, 2018	Change
Property, plant and equipment	\$ 4	\$ 3	\$ 1	\$ 2	\$ 1	\$ 1
Intangible assets	44	32	12	4	2	2
Total	\$ 48	\$ 35	\$ 13	\$ 6	\$ 3	\$ 3

Amortization

Amortization expense increased by \$13 million to \$48 million for the second quarter of fiscal 2020, compared to \$35 million for the second quarter of fiscal 2019. The increase in amortization expense reflects the intangible assets acquired as part of the Cylance acquisition in the fourth quarter of fiscal 2019.

After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments, non-GAAP amortization expense decreased by \$1 million.

Cost of Sales

Amortization expense relating to assets employed in the Company's service and IP operations increased by \$3 million to \$6 million for the second quarter of fiscal 2020, compared to \$3 million for the second quarter of fiscal 2019. The increase is due to a higher portion of the amortization of patents being classified as cost of goods sold due to the Company's IP licensing arrangements.

Investment Income

Investment income, which includes the interest expense from the Debentures, decreased by \$5 million to nil in investment income in the second quarter of fiscal 2020, compared to investment income of \$5 million in the second quarter of fiscal 2019. The decreased investment income was due to lower cash and investment balances in the first quarter of fiscal 2020 versus the second quarter of fiscal 2019 as a result of the use of cash to fund the Cylance acquisition.

Income Taxes

For the second quarter of fiscal 2020, the Company's net effective income tax expense rate was approximately 2%, compared to a net effective income tax expense rate of approximately 2% for the same period in the prior fiscal year. The Company's net effective income tax rate reflects the fact that the Company has a significant valuation allowance against its deferred tax assets, and in particular, the change in fair value of the Debentures, amongst other items, was offset by a corresponding adjustment of the valuation allowance. The Company's net effective income tax rate also reflects the geographic mix of earnings in jurisdictions with different income tax rates.

Net Income

The Company's net loss for the second quarter of fiscal 2020 was \$44 million, reflecting a decrease in net income of \$87 million, compared to a net income of \$43 million in the second quarter of fiscal 2019, primarily due to the difference between the Q2 Fiscal 2020 Debentures Fair Value Adjustment and Q2 Fiscal 2019 Debentures Fair Value Adjustment, an increase in operating expenses, as described above in "Operating Expenses" and a decrease in gross margin percentage as described above in "Consolidated Gross Margin Percentage". After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments, the Company's non-GAAP net income was \$1 million for the second quarter of fiscal 2020 compared to non-GAAP net income of \$21 million for the second quarter of fiscal 2019, reflecting a decrease in non-GAAP net income of \$20 million primarily due to an increase in operating expenses as described above in "Operating Expenses" and a decrease in gross margin percentage, partially offset by an increase in revenue.

For the second quarter of fiscal 2020, U.S. GAAP basic loss and diluted loss per share were \$0.08 and \$0.10, respectively, compared to U.S. GAAP basic earnings per share of \$0.08 and diluted loss per share of \$0.04 for the same period in the prior fiscal year. After giving effect to the relevant Q2 Fiscal 2020 Non-GAAP Adjustments and Q2 Fiscal 2019 Non-GAAP Adjustments, the Company's non-GAAP basic earnings per share was \$0.00 for the second quarter of fiscal 2020 compared to non-GAAP basic earnings per share of \$0.04 for the second quarter of fiscal 2019.

The weighted average number of shares outstanding was approximately 552 million common shares for basic loss per share and 613 million common shares for diluted loss per share for the three months ended August 31, 2019, and approximately 537 million common shares for basic earnings per share and 598 million common shares for diluted loss per share for the three months ended August 31, 2018.

Common Shares Outstanding

On September 19, 2019, there were 548 million common shares, 7 million options to purchase common shares, 20 million restricted share units and 0.9 million deferred share units outstanding. In addition, 60.5 million common shares are issuable upon conversion in full of the Debentures as described in Note 7 to the Consolidated Financial Statements.

The Company has not paid any cash dividends during the last three fiscal years.

Results of Operations - Six months ended August 31, 2019 compared to six months ended August 31, 2018

Revenue

The following table sets forth certain unaudited consolidated statements of operations data as at August 31, 2019 and August 31, 2018 under U.S. GAAP.

	For the Six Months Ended					
	<i>(in millions, except for share and per share amounts)</i>					
	August 31, 2019		August 31, 2018		Change	
Revenue ⁽¹⁾⁽²⁾	\$ 491	100.0%	\$ 423	100.0%	\$ 68	
Gross margin ⁽¹⁾⁽²⁾	353	71.9%	322	76.1%	31	
Operating expenses ⁽¹⁾⁽²⁾	432	88.0%	348	82.3%	84	
Loss before income taxes	(76)	(15.5%)	(15)	(3.5%)	(61)	
Provision for income taxes	3	0.6%	2	0.5%	1	
Net loss ⁽¹⁾	<u>\$ (79)</u>	<u>(16.1%)</u>	<u>\$ (17)</u>	<u>(4.0%)</u>	<u>\$ (62)</u>	
Loss per share - reported						
Basic	<u>\$ (0.14)</u>		<u>\$ (0.03)</u>		<u>\$ (0.11)</u>	
Diluted ⁽³⁾	<u>\$ (0.19)</u>		<u>\$ (0.08)</u>		<u>\$ (0.11)</u>	
Weighted-average number of shares outstanding (000s)						
Basic ⁽⁴⁾	552,096		537,136			
Diluted ⁽³⁾	612,596		597,636			

- (1) See "Non-GAAP Financial Measures" for the impact of the Fiscal 2020 Non-GAAP Adjustments on adjusted revenue, adjusted gross margin, adjusted operating expenses and adjusted net income (loss) in fiscal 2020.
- (2) See "Non-GAAP Financial Measures" for the impact of the Fiscal 2019 Non-GAAP Adjustments on adjusted revenue, adjusted gross margin and adjusted operating expenses in fiscal 2019.
- (3) Diluted loss per share on a U.S. GAAP basis for the first six months of fiscal 2020 and fiscal 2019 does not include the dilutive effect of in-the-money options and RSUs that will be settled upon vesting by the issuance of new common shares, as it would be anti-dilutive. See Note 9 to the Consolidated Financial Statements for the Company's calculation of diluted loss per share.
- (4) Basic loss per share on a U.S. GAAP basis for the first six months of fiscal 2020 includes approximately 4,182,189 common shares to be issued in equal instalments on the next three anniversary dates of the Cylance acquisition, in consideration for the acquisition. There are no service or other requirements associated with the issuance of these shares.

U.S. GAAP Revenue by Product and Service

	For the Six Months Ended					
	<i>(in millions)</i>					
	August 31, 2019		August 31, 2018		Change	
Revenue by Product and Service						
IoT	\$ 269	54.8%	\$ 263	62.2%	\$ 6	2.3 %
BlackBerry Cylance	67	13.7%	—	—%	67	— %
Licensing	143	29.1%	119	28.1%	24	20.2 %
Other	12	2.4%	41	9.7%	(29)	(70.7)%
	<u>\$ 491</u>	<u>100.0%</u>	<u>\$ 423</u>	<u>100.0%</u>	<u>\$ 68</u>	<u>16.1 %</u>

IoT

IoT revenue was \$269 million, or 54.8% of revenue, in the first six months of fiscal 2020, an increase of \$6 million compared to \$263 million, or 62.2% of revenue, in the first six months of fiscal 2019. The increase in IoT revenue of \$6 million was due an increase in revenue from development seat, professional services and royalty revenue from BlackBerry QNX, partially offset by a lower number of Enterprise software licenses sold due to the reorganization of the Enterprise sales force, which caused a delay in developing and closing Enterprise sales transactions.

BlackBerry Cylance

BlackBerry Cylance revenue was \$67 million, or 13.7% of revenue, in the first six months of fiscal 2020. The increase in BlackBerry Cylance revenue of \$67 million was due to the acquisition of Cylance in the fourth quarter of fiscal 2019.

Licensing

Licensing revenue increased by \$24 million, or 20.2%, to \$143 million, or 29.1% of revenue in the first six months of fiscal 2020, compared to \$119 million, or 28.1% of revenue, in the first six months of fiscal 2019. The increase in Licensing revenue of \$24 million was primarily due to higher IP revenue from licensing arrangements and higher IP revenue from the Company's patent licensing agreement with Telety, partially offset by the impact of an IP settlement in the first six months of fiscal 2019 which did not recur in the first six months of fiscal 2020.

Other

Other revenue was \$12 million, or 2.4% of revenue, in the first six months of fiscal 2020 compared to \$41 million, or 9.7% of revenue, in the first six months of fiscal 2019, representing a decrease of \$29 million. The decrease in Other revenue of \$29 million was primarily attributable to a decrease in SAF revenue and revenue from the legacy handheld business. The decrease in SAF revenue is primarily attributable to a lower number of BlackBerry 7 users and lower revenue from those users compared to the first six months of fiscal 2019. The decrease in revenue from the legacy handheld business is primarily attributable to the release of previously accrued amounts in the first six months of fiscal 2019 when the Company determined it had no further performance obligations, which did not recur in the first six months fiscal 2020.

Non-GAAP Revenue by Product and Service

Comparative breakdowns of revenue by product and service on a non-GAAP basis are set forth below.

	For the Six Months Ended					
	(in millions)					
	August 31, 2019		August 31, 2018		Change	
Revenue by Product and Service						
IoT ⁽¹⁾	\$ 271	51.3%	\$ 271	62.9%	\$ —	— %
BlackBerry Cylance ⁽¹⁾	102	19.3%	—	—%	102	— %
Licensing	143	27.1%	119	27.6%	24	20.2 %
Other	12	2.3%	41	9.5%	(29)	(70.7)%
	\$ 528	100.0%	\$ 431	100.0%	\$ 97	22.5 %

⁽¹⁾ See "Non-GAAP Financial Measures" for the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments made to BlackBerry Cylance and IoT.

IoT

IoT non-GAAP revenue was \$271 million, or 51.3% of revenue, in the first six months of fiscal 2020, consistent with IoT non-GAAP revenue of \$271 million, or 62.9% of revenue, in the first six months of fiscal 2019. An increase in IoT non-GAAP revenue due to the reasons described above in "U.S. GAAP Revenue by Product and Service" was fully offset by a decrease of \$6 million in the non-GAAP adjustment of deferred software revenue acquired to \$2 million in the first six months of fiscal 2020 versus \$8 million in the first six months of fiscal 2019.

BlackBerry Cylance

As the Company acquired Cylance at the end of fiscal 2019, no revenue was reported in the first six months of fiscal 2019. BlackBerry Cylance non-GAAP revenue was \$102 million, or 19.3% of revenue, in the first six months of fiscal 2020.

Cylance recorded U.S. GAAP revenue of \$80 million for the six months ended August 31, 2018. After removing the effect of the purchase accounting related adjustment, BlackBerry Cylance non-GAAP revenue was \$102 million for the six months ended August 31, 2019, representing an increase of \$22 million, or 27.5% over the prior year period.

Licensing

Licensing revenue increased by \$24 million, or 20.2%, to \$143 million, or 27.1% of revenue in the first six months of fiscal 2020, compared to \$119 million, or 27.6% of revenue, in the first six months of fiscal 2019. The \$24 million increase was primarily due to the reasons described above in "U.S. GAAP Revenue by Product and Service".

Other

Other revenue was \$12 million, or 2.3% of revenue, in the first six months of fiscal 2020 compared to \$41 million, or 9.5% of revenue, in the first six months of fiscal 2019, representing a decrease of \$29 million. The \$29 million decrease in Other revenue was primarily due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service".

Gross Margin

Consolidated Gross Margin

Consolidated gross margin increased by \$31 million to approximately \$353 million in the first six months of fiscal 2020 from \$322 million in the first six months of fiscal 2019. The increase was primarily due to the increase in gross margin associated with BlackBerry Cylance and Licensing, partially offset by a decrease in gross margin associated with Other.

The increase in gross margin associated with BlackBerry Cylance and Licensing is primarily due to the reasons discussed above in "U.S. GAAP Revenue by Product and Service". The decrease in gross margin associated with Other is primarily due to the decline in SAF revenue discussed above in "U.S. GAAP Revenue by Product and Service", as the cost of goods sold associated with SAF was consistent in the first six months of fiscal 2020 and the first six months of fiscal 2019 due to certain fixed costs associated with SAF infrastructure and the decrease in gross margin associated with the legacy handheld business was primarily due to the decline in revenue discussed above in "U.S. GAAP Revenue by Product and Service".

Consolidated Gross Margin Percentage

Consolidated gross margin percentage decreased by 4.2%, to approximately 71.9% of consolidated revenue in the first six months of fiscal 2020 from 76.1% of consolidated revenue in the first six months of fiscal 2019. The decrease was primarily due to a lower gross margin percentage associated with BlackBerry Cylance, which has a higher proportion of revenue related to professional services.

Operating Expenses

The table below presents a comparison of research and development, selling, marketing and administration, and amortization expenses for the six months ended August 31, 2019, compared to the six months ended August 31, 2018.

	For the Six Months Ended (in millions)					
	August 31, 2019		August 31, 2018		Change	
		% of Revenue		% of Revenue		% of Change
Revenue	\$ 491		\$ 423		\$ 68	16.1%
Operating expenses						
Research and development ⁽¹⁾⁽²⁾	\$ 133	27.1 %	\$ 112	26.5 %	\$ 21	18.8%
Selling, marketing and administration ⁽¹⁾⁽²⁾	253	51.5 %	206	48.7 %	47	22.8%
Amortization ⁽¹⁾⁽²⁾	97	19.8 %	72	17.0 %	25	34.7%
Debentures fair value adjustment ⁽¹⁾⁽²⁾	(51)	(10.4)%	(42)	(9.9)%	(9)	21.4%
Total	<u>\$ 432</u>	<u>88.0 %</u>	<u>\$ 348</u>	<u>82.3 %</u>	<u>\$ 84</u>	<u>24.1%</u>

⁽¹⁾ See "Non-GAAP Financial Measures" for the impact of the Fiscal 2020 Non-GAAP Adjustments on adjusted operating expenditures in fiscal 2020.

⁽²⁾ See "Non-GAAP Financial Measures" for the impact of the Fiscal 2019 Non-GAAP Adjustments on adjusted operating expenditures in fiscal 2019.

Operating expenses increased by \$84 million, or 24.1%, to \$432 million or 88.0% of revenue in the first six months of fiscal 2020, compared to approximately \$348 million or 82.3% of revenue in the first six months of fiscal 2019. The increase was primarily attributable to an increase in salaries and benefits expense, amortization expense and marketing and advertising costs primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019 and costs associated with a direct IP licensing arrangement, partially offset by the difference between the Fiscal 2020 Debentures Fair Value Adjustment and the Fiscal 2019 Debentures Fair Value Adjustment, lower stock compensation expense, and claims filed with the Ministry of Innovation, Science and Economic Development Canada relating to its Strategic Innovation Fund program's investment in BlackBerry QNX.

After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments, non-GAAP operating expenses increased by \$83 million due to the reasons discussed below in "Research and Development Expenses", "Selling, Marketing and Administrative Expenses" and "Amortization Expense".

Research and Development Expenses

Research and development expenses increased by \$21 million to \$133 million, or 27.1% of revenue, in the first six months of fiscal 2020, compared to \$112 million, or 26.5% of revenue, in the first six months of fiscal 2019. After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments, non-GAAP research and development expenses increased by \$23 million. The increase is primarily attributable to an increase in salaries and benefits expense, professional services and infrastructure costs primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019, partially offset by claims filed with the Ministry of Innovation, Science and Economic Development Canada relating to its Strategic Innovation Fund program's investment in BlackBerry QNX compared to the first six months of fiscal 2019.

Selling, Marketing and Administration Expenses

Selling, marketing and administration expenses increased by \$47 million to \$253 million, or 51.5% of revenue, in the first six months of fiscal 2020, compared to approximately \$206 million, or 48.7% of revenue, in the first six months of fiscal 2019. After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments, non-GAAP selling marketing and administration expenses increased by \$62 million. The increase is primarily attributable an increase in salaries and benefits expense and advertising costs primarily due to the acquisition of Cylance in the fourth quarter of fiscal 2019, costs associated with a direct IP licensing arrangement and legal expenses compared to the first six months of fiscal 2019.

Amortization Expense

The table below presents a comparison of amortization expense relating to property, plant and equipment and intangible assets recorded as amortization or cost of sales for the six months ended August 31, 2019 compared to the six months ended August 31, 2018. Intangible assets are comprised of acquired technology, IP, and other acquired intangible assets such as customer relationships and brand.

	For the Six Months Ended (in millions)					
	Included in Amortization			Included in Cost of sales		
	August 31, 2019	August 31, 2018	Change	August 31, 2019	August 31, 2018	Change
Property, plant and equipment	\$ 9	\$ 6	\$ 3	\$ 3	\$ 3	\$ —
Intangible assets	88	66	22	7	4	3
Total	\$ 97	\$ 72	\$ 25	\$ 10	\$ 7	\$ 3

Amortization

Amortization expense increased by \$25 million to \$97 million in the first six months of fiscal 2020 compared to \$72 million for the comparable period in fiscal 2019. The increase in amortization expense primarily reflects the amortization of assets acquired in the Cylance acquisition.

After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments, non-GAAP amortization expense decreased by \$2 million.

Cost of sales

Amortization expense relating to assets employed in the Company's service operations increased by \$3 million to \$10 million in the first six months of fiscal 2020 compared to \$7 million for the comparable period in fiscal 2019. This increase is due to a higher portion of the amortization of patents being classified as cost of goods sold due to the Company's IP licensing arrangements.

Investment Income

Investment income, which includes the interest expense from the Debentures, decreased by \$8 million to \$3 million in investment income in the first six months of fiscal 2020, from an investment income of \$11 million in the comparable period of fiscal 2019. The decreased investment income was due to lower cash and investment balances in the first six months of fiscal 2020 versus the first six months of fiscal 2019 as a result of the use of cash to fund the Cylance acquisition.

Income Taxes

For the first six months of fiscal 2020, the Company's net effective income tax expense rate was approximately 4%, compared to a net effective income tax expense rate of approximately 13% for the same period in the prior fiscal year. The Company's net effective income tax rate reflects the fact that the Company has a significant valuation allowance against its deferred tax assets, and in particular, the change in fair value of the Debentures, amongst other items, was offset by a corresponding adjustment of the valuation allowance. The Company's net effective income tax rate also reflects the geographic mix of earnings in jurisdictions with different income tax rates.

After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments, the Company's non-GAAP income tax rate was approximately 40% compared to a net effective income tax expense rate of approximately 13% for the same period in the prior fiscal year. The increase is due to current year taxable items that could not be offset with carried forward tax attributes such as tax losses.

Net Income (Loss)

The Company's net loss for the first six months of fiscal 2020 was \$79 million, reflecting an increase in net loss of \$62 million compared to net loss of approximately \$17 million in the first six months of fiscal 2019, primarily due to an increase in operating expenses, as described above in "Operating Expenses" and a decrease in gross margin percentage, as describe above in "Consolidated Gross Margin Percentage", partially offset by the difference between the Fiscal 2020 Debentures Fair Value Adjustment and Fiscal 2019 Debentures Fair Value Adjustment. After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments, the Company's non-GAAP net income for the first six months of fiscal 2020 was \$6 million compared to non-GAAP net income of \$38 million for the first six months of fiscal 2019, reflecting a decrease in net income of \$32 million primarily due to an increase in operating expenditures and a decrease in the gross margin percentage, partially offset by an increase in revenue.

U.S. GAAP basic and diluted loss per share were \$0.14 and \$0.19, respectively, in the first six months of fiscal 2020, compared to a U.S. GAAP basic and diluted loss per share of \$0.03 and \$0.08, respectively, in the first six months of fiscal 2019, due to the reasons noted above. After giving effect to the relevant Fiscal 2020 Non-GAAP Adjustments and Fiscal 2019 Non-GAAP Adjustments, the Company's non-GAAP basic earnings per share was \$0.01 for the first six months of fiscal 2020 compared to non-GAAP basic earnings per share of \$0.07 for the first six months of fiscal 2019. The Company continues to expect to achieve non-GAAP profitability for fiscal 2020.

The weighted average number of shares outstanding was approximately 552 million common shares for basic loss per share and 613 million for diluted loss per share for the six months ended August 31, 2019, and approximately 537 million common shares for basic loss per share and 598 million for diluted loss per share for the six months ended August 31, 2018.

Selected Quarterly Financial Data

The following table sets forth the Company's unaudited quarterly consolidated results of operations data for each of the eight most recent quarters, including the quarter ended August 31, 2019. The information in the table below has been derived from the Company's unaudited interim consolidated financial statements that, in management's opinion, have been prepared on a basis consistent with the audited consolidated financial statements of the Company and include all adjustments necessary for a fair presentation of information when read in conjunction with the audited consolidated financial statements of the Company. The Company's quarterly operating results have varied substantially in the past and may vary substantially in the future. Accordingly, the information below is not necessarily indicative of results for any future quarter.

	<i>(in millions, except per share data)</i>							
	Fiscal Year 2020		Fiscal Year 2019				Fiscal Year 2018	
	Second Quarter	First Quarter	Fourth Quarter	Third Quarter	Second Quarter	First Quarter	Fourth Quarter	Third Quarter
Revenue	\$ 244	\$ 247	\$ 255	\$ 226	\$ 210	\$ 213	\$ 233	\$ 226
Gross margin	176	177	206	170	161	161	177	168
Operating expenses	219	213	178	112	122	226	194	426
Income (loss) before income taxes	(43)	(33)	32	60	44	(59)	(14)	(275)
Provision for (recovery of) income taxes	1	2	(19)	1	1	1	(4)	—
Net income (loss)	<u>\$ (44)</u>	<u>\$ (35)</u>	<u>\$ 51</u>	<u>\$ 59</u>	<u>\$ 43</u>	<u>\$ (60)</u>	<u>\$ (10)</u>	<u>\$ (275)</u>
Earnings (loss) per share								
Basic earnings (loss) per share	<u>\$ (0.08)</u>	<u>\$ (0.06)</u>	<u>\$ 0.09</u>	<u>\$ 0.11</u>	<u>\$ 0.08</u>	<u>\$ (0.11)</u>	<u>\$ (0.02)</u>	<u>\$ (0.52)</u>
Diluted earnings (loss) per share	<u>\$ (0.10)</u>	<u>\$ (0.09)</u>	<u>\$ 0.08</u>	<u>\$ (0.01)</u>	<u>\$ (0.04)</u>	<u>\$ (0.11)</u>	<u>\$ (0.06)</u>	<u>\$ (0.52)</u>

Financial Condition

Liquidity and Capital Resources

Cash, cash equivalents, and investments decreased by \$67 million to approximately \$938 million as at August 31, 2019 from approximately \$1.01 billion as at February 28, 2019, primarily as a result of changes in working capital. The majority of the Company's cash, cash equivalents, and investments are denominated in U.S. dollars as at August 31, 2019.

A comparative summary of cash, cash equivalents, and investments is set out below:

	As at <i>(in millions)</i>		
	August 31, 2019	February 28, 2019	Change
Cash and cash equivalents	\$ 460	\$ 548	\$ (88)
Short-term investments	389	368	21
Restricted cash and cash equivalents	34	34	—
Long-term investments	55	55	—
Cash, cash equivalents, and investments	<u>\$ 938</u>	<u>\$ 1,005</u>	<u>\$ (67)</u>

The table below summarizes the current assets, current liabilities, and working capital of the Company:

	As at <i>(in millions)</i>		
	August 31, 2019	February 28, 2019	Change
Current assets	\$ 1,131	\$ 1,194	\$ (63)
Current liabilities	495	471	24
Working capital	<u>\$ 636</u>	<u>\$ 723</u>	<u>\$ (87)</u>

Current Assets

The decrease in current assets of \$63 million at the end of the second quarter of fiscal 2020 from the end of the fourth quarter of fiscal 2019 was primarily due to a decrease in cash and cash equivalents of \$88 million and other receivables of \$1 million, partially offset by an increase in short-term investments of \$21 million, other current assets of \$4 million and income taxes receivable of \$1 million.

At August 31, 2019, accounts receivable was \$194 million, consistent with the balance at February 28, 2019.

At August 31, 2019, other receivables were \$18 million, a decrease of \$1 million from February 28, 2019. The decrease was primarily due to a decrease in GST and VAT receivable.

At August 31, 2019, other current assets were \$60 million, an increase of \$4 million from February 28, 2019. The increase in other current assets was primarily due to increases in prepaid maintenance, partially offset by a decrease in prepaid rent and utilities.

At August 31, 2019, income taxes receivable was \$10 million, an increase of \$1 million from February 28, 2019. The increase was primarily due to changes in the quarterly tax provision.

Current Liabilities

The increase in current liabilities of \$24 million at the end of the second quarter of fiscal 2020 from the end of the fourth quarter of fiscal 2019 was primarily due to an increase in deferred revenue, current of \$35 million and income taxes payable of \$1 million, partially offset by a decrease in accounts payable of \$11 million and a decrease in accrued liabilities of \$1 million.

As at August 31, 2019, deferred revenue, current was \$249 million, reflecting an increase of \$35 million from February 28, 2019, which was primarily attributable to an increase in deferred revenue related to BlackBerry Cylance, partially offset by a decrease in deferred revenue related to IoT.

Accrued liabilities were \$191 million, reflecting a decrease of \$1 million from February 28, 2019, which was primarily attributable to the decreases in variable incentive plan accrual and vendor liabilities compared to the fourth quarter of fiscal 2019, partially offset by the current portion of operating lease liabilities from the adoption of ASC 842.

Cash flows for the six months ended August 31, 2019 compared to the six months ended August 31, 2018 were as follows:

	For the Six Months Ended (in millions)		
	August 31, 2019	August 31, 2018	Change
Net cash flows provided by (used in):			
Operating activities	\$ (47)	\$ 22	\$ (69)
Investing activities	(42)	(264)	222
Financing activities	2	2	—
Effect of foreign exchange on cash and cash equivalents	(1)	(2)	1
Net decrease in cash and cash equivalents	<u>\$ (88)</u>	<u>\$ (242)</u>	<u>\$ 154</u>

Operating Activities

The decrease in net cash flows provided by operating activities of \$69 million for the first six months of fiscal 2020 primarily reflects the net changes in working capital and lower net income after adjustments for non-cash items.

Investing Activities

During the six months ended August 31, 2019, cash flows used in investing activities were \$42 million and included cash used in transactions involving the proceeds on sale or maturity of short-term and long-term investments, net of acquisitions in the amount of \$21 million, intangible asset additions of \$16 million, and acquisitions of property, plant and equipment of \$6 million, offset by proceeds received from the decrease in consideration paid for the Cylance acquisition. For the same period in the prior fiscal year, cash flows used in investing activities were \$264 million and included cash used in transactions involving the acquisitions of short-term and long-term investments, net of the proceeds on sale or maturity in the amount of \$240 million, intangible asset additions of \$16 million and acquisitions of property, plant and equipment of \$9 million.

Financing Activities

The increase in cash flows provided by financing activities of \$2 million was consistent with the first six months of fiscal 2020. Cash proceeds from common shares issued during the first six months of fiscal 2020, was fully offset by cash used for the finance lease liability.

Aggregate Contractual Obligations

Purchase obligations and commitments amounted to approximately \$447 million as at August 31, 2019, including future interest payments of \$27 million on the Debentures and operating lease obligations of \$188 million. The remaining balance consists of purchase orders for goods and services utilized in the operations of the Company. Total aggregate contractual obligations as at August 31, 2019 increased by \$5 million as compared to the February 28, 2019 balance of approximately \$442 million, which was attributable to increases in purchase orders for goods and services used in operations, partially offset by a decrease in operating lease obligations and interest payments on the Debentures.

Debenture Financing and Other Funding Sources

See Note 7 to the Consolidated Financial Statements for a description of the Debentures.

The Company had \$28 million in collateralized outstanding letters of credit in support of certain leasing arrangements entered into in the ordinary course of business as of August 31, 2019. See Note 2 to the Consolidated Financial Statements for further information concerning the Company's restricted cash.

Cash, cash equivalents, and investments were approximately \$938 million as at August 31, 2019. The Company's management remains focused on maintaining appropriate cash balances, efficiently managing working capital balances and managing the liquidity needs of the business. Based on its current financial projections, the Company believes its financial resources, together with expected future operating cash generating and operating expense reduction activities and access to other potential financing arrangements, should be sufficient to meet funding requirements for current financial commitments and future operating expenditures not yet committed, and should provide the necessary financial capacity for the foreseeable future.

The Company does not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K under the Securities Exchange Act of 1934, as amended, or under applicable Canadian securities laws.

Legal Proceedings

The Company is involved in litigation in the normal course of its business, both as a defendant and as a plaintiff. Management reviews all of the relevant facts for each claim and applies judgment in evaluating the likelihood and, if applicable, the amount of any potential loss. Where a potential loss is considered probable and the amount is reasonably estimable, provisions for loss are made based on management's assessment of the likely outcome. Where a range of loss can be reasonably estimated with no best estimate in the range, the Company records the minimum amount in the range. The Company does not provide for claims for which the outcome is not determinable or claims for which the amount of the loss cannot be reasonably estimated. Any settlements or awards under such claims are provisioned for when reasonably determinable.

As of August 31, 2019, there are no claims outstanding for which the Company has assessed the potential loss as both probable to result and reasonably estimable, therefore no accrual has been made. See Note 11 to the Consolidated Financial Statements for a further discussion of the Company's legal matters.

Market Risk of Financial Instruments

The Company is engaged in operating and financing activities that generate risk in three primary areas:

Foreign Exchange

The Company is exposed to foreign exchange risk as a result of transactions in currencies other than its functional currency, the U.S. dollar. The majority of the Company's revenue in the second quarter of fiscal 2020 were transacted in U.S. dollars. Portions of the revenue were denominated in Canadian dollars, euros and British pounds. Purchases of raw materials were primarily transacted in U.S. dollars. Other expenses, consisting mainly of salaries and certain operating costs were incurred primarily in Canadian dollars, but were also incurred in U.S. dollars, euros, British pounds, and other global currencies. At August 31, 2019, approximately 13% of cash and cash equivalents, 15% of accounts receivables and 15% of accounts payable were denominated in foreign currencies (February 28, 2019 – 9%, 29% and 4%, respectively). These foreign currencies primarily include the Canadian dollar, euro and British pound. As part of its business operations, the Company maintains net monetary asset and/or liability balances in foreign currencies and engages in foreign currency hedging activities using derivative financial instruments, including currency forward contracts and currency options. The Company does not use derivative instruments for speculative purposes. See Note 3 to the Consolidated Financial Statements for information concerning the Company's foreign currency hedging activities.

Interest Rate

Cash and cash equivalents and investments are invested in certain instruments of varying maturities. Consequently, the Company is exposed to interest rate risk as a result of holding investments of varying maturities. The fair value of investments, as well as the investment income derived from the investment portfolio, will fluctuate with changes in prevailing interest rates. The Company has also issued the Debentures with a fixed 3.75% interest rate. The fair value of the Debentures will fluctuate with changes in prevailing interest rates. Consequently, the Company is exposed to interest rate risk as a result of the long-term nature of the Debentures. The Company does not currently utilize interest rate derivative instruments to hedge its investment portfolio or changes in market value of the Debentures.

Credit and Customer Concentration

The Company, in the normal course of business, monitors the financial condition of its customers and reviews the credit history of each new customer. The Company establishes an allowance for doubtful accounts ("AFDA") that corresponds to the specific credit risk of its customers, historical trends and economic circumstances. The AFDA as at August 31, 2019 was \$25 million (February 28, 2019 - \$25 million). There were two customers that each comprised more than 10% of accounts receivable as at August 31, 2019 (February 28, 2019 - one customer comprised more than 10%). During the second quarter of fiscal 2020, the percentage of the Company's receivable balance that was past due increased by 13.0% compared to the fourth quarter of fiscal 2019. Although the Company actively monitors and attempts to collect on its receivables as they become due, the risk of further delays or challenges in obtaining timely payments of receivables exists. The occurrence of such delays or challenges in obtaining timely payments could negatively impact the Company's liquidity and financial condition. There were two customers that comprised more than 10% of the Company's revenue in the second quarter of fiscal 2020 (one customer comprised more than 10% of the Company's revenue in the second quarter of fiscal 2019).

Market values are determined for each individual security in the investment portfolio. The Company assesses declines in the value of individual investments for impairment to determine whether the decline is other-than-temporary. The Company makes this assessment by considering available evidence including changes in general market conditions, specific industry and individual company data, the length of time and the extent to which the fair value has been less than cost, the financial

condition, the near-term prospects of the individual investment and, in the case of debt securities, the Company's ability and intent to hold the investments to maturity. During the six months ended August 31, 2019 the Company did not record any other-than-temporary impairment charges related to investments (August 31, 2018 - nil).

See Note 3 to the Consolidated Financial Statements for additional information regarding the Company's credit risk as it pertains to its foreign exchange derivative counterparties.

Changes in Internal Control Over Financial Reporting

During the three months ended August 31, 2019, no changes were made to the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.