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

FORM 40-F

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

or

☒ **ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended February 28, 2019 **Commission File Number 1-38232**

BlackBerry Limited
(Exact name of Registrant as specified in its charter)

Ontario	**7372**	**Not Applicable**
(Province or other Jurisdiction of Incorporation or Organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification No)**

2200 University Ave East
Waterloo, Ontario, Canada,
N2K 0A7
(519) 888-7465
(Address and telephone number of Registrant's principal executive offices)

BlackBerry Corporation
3001 Bishop Drive, Suite 400
San Ramon, California, USA 94583
(925) 242-5660
(Name, address and telephone number of agent for service in the United States)

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

Title of each class	**Name of each exchange where registered**
Common Shares, without par value	**Toronto Stock Exchange**
Common Shares, without par value	**New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act:
None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:
None

For annual reports, indicate by check mark the information filed with this Form:

☒ Annual information form ☒ Audited annual financial statements

Indicate the number of outstanding shares of each of the Registrant's classes of capital or common stock as of the close of the period covered by this annual report.

The Registrant had 547,357,972 Common Shares outstanding as at February 28, 2019.
Indicate by check mark whether the Registrant by filing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934 (the “Exchange Act”). If “Yes” is marked, indicate the filing number assigned to the Registrant in connection with such Rule.

☐ Yes 82- _________ ☒ No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

Emerging growth company ☐

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

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

A. Disclosure Controls and Procedures

Disclosure controls and procedures are defined by the Securities and Exchange Commission (the "Commission") as those controls and other procedures that are designed to ensure that information required to be disclosed by the Registrant in reports filed or submitted by it under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms.

The Registrant's Chief Executive Officer and Chief Financial Officer have evaluated the Registrant's disclosure controls and procedures as of the end of the period covered by this Annual Report and have determined that such disclosure controls and procedures were effective. A discussion of the Registrant's disclosure controls and procedures can be found in its Management's Discussion and Analysis of Financial Condition and Results of Operations for the fiscal year ended February 28, 2019, included in Exhibit 1.3 to this Annual Report, under the heading "Disclosure Controls and Procedures and Internal Controls - Disclosure Controls and Procedures".

B. Management's Annual Report on Internal Control Over Financial Reporting

See Management's Discussion and Analysis of Financial Condition and Results of Operations for the fiscal year ended February 28, 2019, included in Exhibit 1.3 to this Annual Report, under the heading "Disclosure Controls and Procedures and Internal Controls - Management's Report on Internal Control Over Financial Reporting".

C. Attestation Report of the Registered Public Accounting Firm

The attestation report of Ernst & Young LLP ("EY") is included in EY's report, dated April 5, 2019, to the shareholders of the Registrant, which accompanies the Registrant's audited consolidated financial statements for the fiscal year ended February 28, 2019, filed as Exhibit 1.2 to this Annual Report.

D. Changes in Internal Control Over Financial Reporting

See Management's Discussion and Analysis of Financial Condition and Results of Operations for the fiscal year ended February 28, 2019, included in Exhibit 1.3 to this Annual Report, under the heading "Disclosure Controls and Procedures and Internal Controls – Changes in Internal Control Over Financial Reporting".

E. Notice of Pension Fund Blackout Period

The Registrant was not required by Rule 104 of Regulation BTR to send any notice to any of its directors or executive officers during the fiscal year ended February 28, 2019.

F. Audit Committee Financial Expert

The Registrant's Board of Directors has determined that Barbara Stymiest, an individual serving on the Audit and Risk Management Committee of the Registrant's Board of Directors, is an audit committee financial expert, within the meaning of General Instruction B(8)(b) of Form 40-F.

The Commission has indicated that the designation of a person as an audit committee financial expert does not make such person an "expert" for any purpose, impose any duties, obligations or liability on such person that are greater than those imposed on members of the Audit and Risk Management Committee and the Board of Directors who do not carry this designation or affect the duties, obligations or liability of any other member of the Audit and Risk Management Committee or Board of Directors.

G. Code of Ethics

The Registrant's Board of Directors has adopted a code of ethics (the "Code") that applies to all directors, officers and employees. A copy of the Code may be obtained at www.blackberry.com. The Registrant will provide a copy of the Code without charge to any person that requests a copy by contacting the Corporate Secretary at the address that appears on the cover of this Annual Report on Form 40-F.

H. Principal Accountant Fees and Services

Audit Fees

The aggregate fees billed by EY, the Company's independent auditor, for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for professional services rendered by EY for the audit of the Company's annual financial statements or services that are normally provided by EY in connection with statutory and regulatory filings or engagements for such fiscal years were $3,685,510 and $4,273,803 (of which $1,926,094 related to prior fiscal years), respectively.

Audit-Related Fees

The aggregate fees billed by EY for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for assurance and related services rendered by EY that are reasonably related to the performance of the audit or review of the Company's financial statements and are not reported above as audit fees were $0 and $33,598, respectively. Professional services provided included procedures related to the audit of new systems implemented.

Tax Fees

The aggregate fees billed by EY for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for professional services rendered by EY for tax compliance, tax advice, tax planning and other services were $7,205 and $6,265, respectively. Tax services provided included international tax compliance engagements.

All Other Fees

The aggregate fees billed by EY for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for professional services rendered by EY for acquisition related due diligence were $15,690 and $129,301, respectively.

Audit Committee Pre-Approval Policies and Procedures

Since the enactment of the Sarbanes-Oxley Act of 2002 on July 30, 2002, all audit and non-audit services performed by the Registrant's outside auditors are pre-approved by the Audit and Risk Management Committee of the Registrant.

I. Off-Balance Sheet Arrangements

The Registrant is not a party to any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on its financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

J. Tabular Disclosure of Contractual Obligations

Tabular disclosure of the Registrant's contractual obligations can be found in its Management's Discussion and Analysis of Financial Condition and Results of Operations for the fiscal year ended February 28, 2019, included in Exhibit No. 1.3 to this Annual Report, under the heading "Financial Condition - Aggregate Contractual Obligations".

K. Identification of Audit Committee

The Registrant has an Audit and Risk Management Committee comprised of four individuals: Barbara Stymiest (Chair), Timothy Dattels, Dr. Laurie Smaldone Alsup and the Hon. Wayne Wouters. Each of the members of the Audit and Risk Management Committee is independent as that term is defined by the rules and regulations of the New York Stock Exchange.

L. Critical Accounting Estimates

A discussion of the Registrant's critical accounting estimates can be found in its Management's Discussion and Analysis of Financial Condition and Results of Operations for the fiscal year ended February 28, 2019, included in Exhibit No. 1.3 to this Annual Report, under the heading "Accounting Policies and Critical Accounting Estimates - Critical Accounting Estimates".

M. Interactive Data File

The Registrant has submitted to the Commission, included in Exhibit 101 to this Annual Report, an Interactive Data File.

N. Mine Safety

The Registrant is not currently required to disclose the information required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

A. Undertaking

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to the securities in relation to which the obligation to file an annual report on Form 40-F arises or transactions in said securities.

B. Consent to Service of Process

The Registrant has previously filed with the Commission a Form F-X in connection with its Common Shares, as amended on Form F-X/A filed with the Commission on June 1, 2015 and on Form F-X/A filed with the Commission on June 24, 2016.

SIGNATURE

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereto duly authorized.

BLACKBERRY LIMITED

Date: April 5, 2019	By:	/s/ Steven Capelli
	Name:	Steven Capelli
	Title:	Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Document
1.1	Annual Information Form for the fiscal year ended February 28, 2018, dated March 28, 2018.
1.2	Audited Consolidated Financial Statements for the fiscal year ended February 28, 2018, prepared in accordance with U.S. generally accepted accounting principles.
1.3	Management's Discussion and Analysis of Financial Condition and Results of Operations for the fiscal year ended February 28, 2018.
23.1	Consent of Ernst & Young LLP.
31.1	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	Interactive Data File.

BLACKBERRY LIMITED
2200 University Avenue East
Waterloo, Ontario
Canada
N2K 0A7

Annual Information Form
For the fiscal year ended
February 28, 2019

DATE: April 5, 2019

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ANNUAL INFORMATION FORM

CERTAIN INTERPRETATION MATTERS

Unless the context otherwise requires, all references to the "Company" and "BlackBerry" include BlackBerry Limited (formerly, Research In Motion Limited) and its subsidiaries. All dollar references, unless otherwise noted, are in United States dollars.

BlackBerry®, BBM™, QNX®, Good® and related trademarks, names and logos are the property of BlackBerry Limited and are registered and/or used in the United States and countries around the world. All other trademarks are the property of their respective owners.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Information Form ("AIF") 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 grow revenue and increase and enhance its product and service offerings;
- the Company's expectations regarding the generation of revenue and margin from its software, services and other technologies, including its intellectual property and brand assets;
- the Company's intention to maintain its leadership position and increase its market share in the enterprise endpoint security and communications market; and
- the Company's intention to pursue growth in select international markets.

The words "expect", "anticipate", "estimate", "may", "will", "should", "could", "intend", "believe", "target", "plan" and similar expressions are intended to identify forward-looking statements. Forward-looking statements are based on estimates and assumptions made by the Company in light of its experience and its perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate in the circumstances, including but not limited to, the Company's expectations regarding its business, strategy, opportunities and prospects, the launch of new products and services, general economic conditions, competition, and the Company's expectations regarding its financial performance. 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 risks and uncertainties facing the Company which are described in the "Risk Factors" section of this AIF.

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. These forward-looking statements are subject to the inherent risk of 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. These factors should be considered carefully, and readers should not place undue reliance on the Company's forward-looking statements. 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.

CORPORATE STRUCTURE

The Company

The Company was incorporated under the *Business Corporations Act* (Ontario) ("OBCA") on March 7, 1984 and commenced operations at that time. The Company has amalgamated with several of its wholly-owned subsidiaries, the last amalgamation occurring through the filing of articles of amalgamation under the OBCA on November 4, 2013. The Company's registered and principal business office is 2200 University Avenue East, Waterloo, Ontario, Canada N2K 0A7.

Intercorporate Relationships

The Company has five material subsidiaries, all of which are wholly-owned, directly or indirectly, by the Company in each case as at February 28, 2019.

Name of Subsidiary	Jurisdiction of Incorporation or Organization
BlackBerry Corporation	Delaware, U.S.A.
BlackBerry UK Limited	England and Wales
Cylance Inc.	Delaware, U.S.A.
Good Technology Corporation	Delaware, U.S.A.
QNX Software Systems Limited	Ontario, Canada

GENERAL DEVELOPMENT OF THE BUSINESS

The products, services and developments that have influenced the Company's business over the last three fiscal years are as follows:

Fiscal 2019:

Significant Acquisitions

- Completed the acquisition of Cylance Inc. ("Cylance"), an artificial intelligence and cybersecurity leader, for $1.4 billion in cash, plus the assumption of unvested employee incentive awards. The acquisition of Cylance was considered a "significant acquisition". The Company will file a business acquisition report in respect of the acquisition, as required.

Products, Services, Recognitions and Certifications

- Announced the development of BlackBerry Spark, the Company's new Enterprise of Things platform integrating the Company's endpoint management and embedded software technology to enable secure communication and collaboration between smart endpoints;
- Recognized for #1 Global Automotive Infotainment OS marketshare by Strategy Analytics;
- Recognized as a leader for the second year in a row in the IDC MarketScape: Worldwide Enterprise Mobility Management Software 2018 Vendor Assessment;
- Launched three new automotive software products certified to ISO 26262, the automotive industry's functional safety standard: BlackBerry's QNX Hypervisor for Safety, QNX Platform for ADAS 2.0, and QNX OS for Safety 2.0, enabling automakers to accelerate development timelines and reduce cost;
- Announced that BlackBerry QNX software is embedded in the advanced driver assistance system, digital instrument clusters, connectivity modules, handsfree systems or infotainment systems of more than 120 million cars on the road;
- Launched a new ransomware recovery capability within BlackBerry Workspaces that allows organizations to quickly recover from cyberattacks;
- Launched QNX OS Medical 2.0, a real-time operating system for use in the development of secure medical devices;
- Launched a quantum-resistant code signing server to allow software to be digitally signed using a scheme that will be difficult to breach with a quantum computer;
- Announced a new Security Credential Management System service based on BlackBerry's Certicom technology to help the private and public sectors come together to accelerate the development of Smart Cities and Intelligent Transportation Systems;
- Became a HIMSS Analytics Certified Consultant to help guide healthcare organizations through the new HIMSS Infrastructure Adoption Model maturity model;
- Launched QNX Platform for Digital Cockpits, the world's first digital cockpit solution to allow automakers to combine customer experience with safety;
- Launched BlackBerry Secure feature packs for Enterprise of Things device manufacturers to securely build smart products; and

- Recognized for BlackBerry Cylance's leadership in five categories of the 2019 Cybersecurity Excellence Awards: Best Cybersecurity Company, Most Innovative Cybersecurity Company, Endpoint Detection and Response, Endpoint Security, and Best Cybersecurity Podcast.

Joint Ventures, Partnerships and Other Agreements

- Entered into a partnership with Microsoft Corp. to offer enterprises BlackBerry Enterprise Bridge, a solution that integrates BlackBerry's expertise in mobility and security with Microsoft's cloud and productivity products;
- Entered into a multi-year agreement with Jaguar Land Rover to collaborate and develop technology for the automotive manufacturer's next-generation vehicles;
- Collaborated with the Government of Canada to modernize their operations centers with BlackBerry AtHoc during G7 ministerial meetings and the 2018 G7 Summit;
- Joined the OmniAir Consortium as an executive member to help advance the testing, certification, and deployment of technologies for connected vehicles and intelligent transportation systems;
- Signed a BlackBerry Secure technology and brand licensing deal with Swiss consumer electronics maker Punkt Tronics AG;
- Entered into a licensing agreement with Bullitt Group to embed BlackBerry cybersecurity technology into a range of highly-secure, rugged Caterpillar- and Land Rover-branded connected devices to be certified as "BlackBerry Secure";
- Entered into an arrangement with electric vehicle maker BYTON to use BlackBerry QNX technologies for the in-car experience within its first series of production vehicles;
- Entered into a partnership agreement with DMC Insurance to develop insurance-based products and services using near real-time data from BlackBerry Radar to help trucking companies improve operations, increase safety and better manage the total cost of risk;
- Entered into a multi-year strategic relationship with Samsung Electronics Co. Ltd. to collaborate on integrated solutions to accelerate the digital transformation of their shared business customers;
- Entered into a global independent software vendor partnership with Check Point Software Technologies Ltd. to mitigate cybersecurity threats;
- Entered into a partnership with L-SPARK to help small and medium-sized technology enterprises grow their businesses and bring new products to market using BlackBerry QNX technology;
- Entered into a partnership with ONEBIO to use BlackBerry's renowned carrier-grade network operation center to power a blockchain digital ledger provided by ONEBIO in order to create an ultra-secure global ecosystem for the storing and sharing of medical data;
- Entered into a partnership with Mackenzie Innovation Institute to explore security and connectivity between the BlackBerry Spark platform and its 'smart' healthcare technology vision;
- Melanoma Institute Australia selected BlackBerry Workspaces to enable researchers to securely share critical research data and patient records;
- Expanded its partnerships with Android and PLDT Enterprise, through Smart Communications Inc. to provide MiCab, an online taxi-hailing platform, with an integrated, secure enterprise cloud solution that maintains data privacy, meets compliance and accelerates service delivery;
- Entered into a partnership with Virginia Tech to help advance the Department of Mechanical Engineering's connected and autonomous vehicle research and provide hands-on training with BlackBerry QNX software;
- Expanded a partnership with Renesas to offer an integrated virtualization, functional safety and secure development environment for the Renesas R-Car system-on-chip devices;
- Expanded its partner ecosystem by growing enterprise ISV partners by 25 percent in the last year, signing on 140 new channel partners to the BlackBerry Enterprise Partner Program in the fiscal second quarter, signing four new channel partners to the BlackBerry QNX Distributor & Value-Added Integrator programs, and adding AWS as a cloud partner; and
- Announced a commitment by the Government of Canada to invest up to CAD$40 Million to support the Company's investment in the development of BlackBerry QNX software for autonomous cars.

Financial Highlights

- Achieved non-GAAP total Company software and services revenue of $857 million for the year, and U.S. GAAP total Company software and services revenue of $845 million for the year;
- Achieved non-GAAP EPS of $0.24 per basic and diluted share in fiscal 2019, and U.S. GAAP EPS of $0.17 per basic share and $0.00 per diluted share in fiscal 2019; and
- Achieved positive free cash flow for fiscal 2019, before considering the impact of restructuring and the impact of legal proceedings.

Executive Officer Appointments

- Entered into an agreement to extend John Chen's leadership of the Company to November 2023;

- Appointed Randall Cook as Chief Legal Officer & Corporate Secretary;
- Appointed Bryan Palma as President and Chief Operating Officer; and
- Appointed Stuart McClure as President, BlackBerry Cylance.

Fiscal 2018:

Products, Services, Recognitions and Certifications

- Ranked as a leader in the *Forrester Wave: EMM* report by Forrester Research, Inc., for the third consecutive year;
- Launched QNX Hypervisor 2.0, a real-time Type 1 hypervisor solution that enables automotive platform developers to partition and isolate safety-critical environments from non-safety critical environments;
- Launched BlackBerry Jarvis, a cloud-based static binary code-scanning tool that identifies cybersecurity vulnerabilities in software used in automobiles;
- Expanded its asset tracking portfolio with the launch of Radar-L, a solution for flatbeds, chassis, containers, heavy machinery and other valuable transportation or non-powered assets;
- Partnered with TCL Communication ("TCL") and PT BB Merah Putih to introduce the BlackBerry-branded KEYone, Motion, and Aurora smartphones, offering the most secure Android smartphone experience;
- Announced that the BlackBerry AtHoc cloud service for crisis communication received U.S. Federal Risk and Authorization Management Program ("FedRAMP") authorization;
- Launched AtHoc Account, a FedRAMP-authorized solution that automates personnel accountability and crisis communication processes by providing safety and availability status updates of people before, during and after a critical event;
- Expanded SecuSUITE for Government availability to include the Canadian and U.S. governments; and
- Introduced new cybersecurity consulting services aimed at enabling enterprise General Data Protection Regulation compliance and mitigating security risks in connected automobiles that threaten personal and public safety.

Joint Ventures, Partnerships and Other Agreements

- Entered into a strategic licensing agreement with Teletry, under which Teletry may sublicense a broad range of the Company's patents to a majority of global smartphone manufacturers;
- Entered into an agreement with Qualcomm Technologies, Inc. ("Qualcomm"), to optimize select Qualcomm hardware platforms with software from its wholly-owned subsidiary QNX Software Systems Limited ("BlackBerry QNX") for use in virtual cockpit controllers, telematics, electronic control gateways, digital instrument clusters and infotainment systems, and to optimize the Company's over-the-air ("OTA") software and secure credential management services for use with select Qualcomm modems;
- Announced a commercial partnership agreement with Delphi Automotive PLC (now Aptiv) to provide the operating system for its autonomous driving system;
- Selected by Baidu to power Baidu's Apollo autonomous driving open platform, CarLife infotainment platform and DuerOS artificial intelligence system;
- Announced that NVIDIA Corporation selected BlackBerry QNX to be the software foundation for its functionally safe self-driving development platform;
- Announced that, in partnership with DENSO Corporation, the Company has developed the world's first integrated Human Machine Interface platform for automobiles;
- Added numerous Gold-level partners to the BlackBerry Enterprise Partner Program, furthering the Company's commitment to establishing and growing its global ecosystem of enterprise software partners and developers;
- Entered into a reselling partnership with Fleet Complete for BlackBerry Radar and announced that Fleet Complete has chosen BlackBerry Radar for its BigRoad Freight program;
- Announced a new partnership with Pana-Pacific to make BlackBerry Radar available to more than 2,800 commercial vehicle dealers in North America;
- Signed its first white label licensing deal with Yangzhou New Telecom Science and Technology Company Ltd. ("NTD"), under which handsets developed by NTD and branded by original equipment manufacturers ("OEMs"), carriers and local smartphone brands will use BlackBerry's device software and be marketed as "BlackBerry Secure"; and
- Expanded its distribution channels through a new initiative with Allied World Assurance Company Holdings, AG, whereby Allied World will provide its cyber policyholders with direct access to the Company's cybersecurity expertise through the BlackBerry SHIELD online self-assessment tool that will identify areas of weakness, after which the Company will work to improve the policyholders' security posture by providing its cybersecurity products and services.

Financial Highlights

- Achieved non-GAAP total Company software and services revenue of $782 million for the year, and U.S. GAAP total Company software and services revenue of $747 million for the year;
- Achieved non-GAAP EPS of $0.14 per basic and diluted share in fiscal 2018, and U.S. GAAP EPS of $0.76 per basic share and $0.74 per diluted share in fiscal 2018;
- Achieved positive free cash flow for fiscal 2018, before considering the costs of restructuring and transition from the hardware business as well as the net impact of arbitration awards and damages;
- Resolved all amounts payable in connection with an arbitration with Qualcomm and received payment of $940 million from Qualcomm including interest and attorneys' fees, net of certain royalties due from the Company; and
- Commenced a normal course issuer bid to repurchase up to 31 million common shares of the Company (see also "Normal Course Issuer Bid").

Executive Officer Appointments

- Appointed Steven Capelli as Chief Operating Officer (in addition to Chief Financial Officer); and
- Appointed Mark Wilson as Chief Marketing Officer.

Fiscal 2017:

Products, Services and Certifications

- Launched the Company's comprehensive and fully integrated software platform to secure the Enterprise of Things;
- Partnered with TCL in its introduction of the BlackBerry-branded KEYone smartphone;
- Launched DTEK60 and DTEK50 secure Android smartphones;
- Launched BlackBerry Radar, an end-to-end asset tracking system for trucking companies and private fleet operators to optimize asset utilization, reduce theft and reduce operational costs;
- Announced plans to launch the BlackBerry Autonomous Vehicle Innovation Center ("AVIC") to focus on developing secure software for connected cars and autonomous driving, while launching the BlackBerry QNX Software Development Platform for autonomous drive and connected cars;
- Introduced the Enterprise Partner Program to stimulate growth and drive profit for solutions providers, developers and training partners working with BlackBerry solutions;
- Achieved common criteria National Information Assurance Partnership ("NIAP") certification for BB 10.3.3;
- Announced plans to launch a Federal Cybersecurity Operations Center to support FedRAMP and other government security certification initiatives, led by former U.S. Coast Guard CIO, Rear Admiral Bob Day Jr. (retired); and
- Entered the Communications Platform as a Service ("CPaaS") market with the launch of the BlackBerry Messenger ("BBM") Enterprise Software Development Kit ("SDK"), which will enable developers to integrate secure messaging, voice and video capabilities into applications and services.

Joint Ventures, Partnerships and Other Agreements

- Entered into agreements with TCL, Optiemus Infracom Ltd. ("Optiemus") and PT BB Merah Putih under which the Company licensed its security software and service suite, as well as related brand assets, to enable these licensees to design, manufacture, sell and provide customer support for BlackBerry-branded handsets featuring the Company's secure Android software;
- Entered into a strategic alliance and licensing agreement with PT Elang Mahkota Teknologi Tbk ("Emtek") to provide cross-platform consumer BBM users with access to enriched content and services; and
- Entered into a non-exclusive agreement with Ford Motor Company for expanded use of the BlackBerry QNX OS, hypervisor and audio processing software as well as Certicom and other security software.

Financial Highlights

- Reduced leverage through the redemption of the Company's outstanding 6% convertible debentures (the "6% Debentures") through the issuance of $605 million aggregate principal amount of 3.75% convertible debentures of the Company (the "3.75% Debentures") (the "Debenture Refinancing");
- Completed a normal course issuer bid under which the Company repurchased for cancellation approximately 12.6 million common shares;
- Achieved positive adjusted EBITDA in each quarter of fiscal 2017; and
- Achieved non-GAAP total Company software and services revenues of $687 million for the year, and U.S. GAAP total Company software and services revenues of $622 million for the year.

Executive Officer Appointment

- Appointed Steven Capelli as Chief Financial Officer.

NARRATIVE DESCRIPTION OF THE BUSINESS

Overview

The Company enables the Enterprise of Things by providing the technology that allows endpoints to trust one another, communicate securely, and maintain privacy. Based in Waterloo, Ontario, the Company was founded in 1984 and operates globally. The Company's common shares trade under the ticker symbol "BB" on the New York Stock Exchange ("NYSE") and the Toronto Stock Exchange ("TSX").

Endpoint Security Software Industry

As the digital transformation of enterprises continues to advance, with workplaces becoming more decentralized and applications moving to the cloud, the number and scope of connected endpoints in the Enterprise of Things is expanding, and the amount of critical data they contain is growing in parallel. The Company defines the Enterprise of Things as the network of smartphones, computers, vehicles, sensors, equipment and other online devices within the enterprise that communicate with each other to enable smart business processes that span across people, connected endpoints and their data.

Cybercriminals seek to exploit vulnerabilities in Enterprise of Things and the endpoint has become the gateway for hackers to access enterprise networks. Hackers use novel and increasingly sophisticated techniques, such as ransomware, malware, spyware, exploits, and phishing attacks, to gain access to sensitive information and disrupt operations. Highly publicized data breaches have exposed the potential for hacking to cause significant financial and reputational damage to enterprises and even to threaten national security. In the enterprise, cyber risk is exacerbated by bring-your-own-device policies, which result in personal devices that are not managed by the organization connecting to corporate networks. Additionally, changes to data privacy laws in the United States and other jurisdictions, such as the General Data Protection Regulation ("GDPR") in Europe, are compounding the challenges faced by organizations by increasing their responsibilities for securing their data as well as that of their customers.

This landscape has created opportunities for cybersecurity solutions, embedded systems, communications platforms, enterprise applications, networks and analytic tools and related services that help enterprises to secure their connected endpoints, enhance data privacy and demonstrate compliance with applicable regulations.

Strategy

BlackBerry 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 for the Enterprise of Things. The Company leverages many elements of its extensive technology portfolio to extend best-in-class security and reliability to its solutions for the Enterprise of Things, 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 strategic industry verticals.

The following five strategic pillars support the Company as it pursues its software-focused strategy:

- **Product Platform.** The Company's core software and services offering is its end-to-end Enterprise of Things platform that comprises endpoint management capabilities, enterprise communication and collaboration software and safety-certified embedded solutions. These solutions are informed by the Company's deep security expertise and experience, continuous technical innovation, professional cybersecurity services, industry partnerships and academic collaborations. The platform components include the BlackBerry Enterprise Mobility Suite, BlackBerry Jarvis, BBM Enterprise, BlackBerry Spark Communication Services, BlackBerry AtHoc, Secusmart, and the technologies offered by BlackBerry QNX and Certicom. The Company is developing BlackBerry Spark to integrate these components as well as the artificial intelligence and machine learning cybersecurity capabilities of BlackBerry Cylance, to better deliver secure communications and protect endpoints.
- **Substantial Target Markets.** The Company leverages its expertise in endpoint security and management to capitalize on opportunities in growing segments of the Internet of Things, cybersecurity, connected transportation, healthcare, financial services and government markets. Through its products, the Company intends to provide enterprises, OEMs, Tier 1s and governments with the highest standard of safety and security.

- **Efficient Go-To-Market.** The Company's sales strategy focuses solely on enterprise software, services and licensing. The Company continues to build its developer and channel partner programs to bolster the Company's direct sales and marketing efforts and promote the growth of an Enterprise of Things ecosystem. The Company also licenses its brand and secure handset software and applications to select third-party manufacturers and others seeking the Company's software expertise. See also "Sales, Marketing, Distribution and Customers".
- **Operational Efficiency.** The Company optimizes its operations on an ongoing basis to enhance the efficiency of its software and services business and accelerate bringing new offerings to market.
- **Growth and Profitability.** The Company intends to drive revenue growth through its software and services portfolio and to achieve margins that are consistent with those of other enterprise software companies.

Products and Services

The Company is organized and managed as one operating segment. The Company has multiple products and services from which it derives revenue, which are grouped as follows: Enterprise Software & Services, BlackBerry Technology Solutions ("BTS"), Licensing, IP and Other, Handheld Devices, and Service Access Fees ("SAF").

Enterprise Software and Services

Enterprise Software and Services consists of operations relating to certain of the Company's software products and service offerings, including:

<u>BlackBerry Enterprise Mobility Suite</u>

Security, reliability, productivity and collaboration are hallmark strengths of the Company's core enterprise software offerings and are instrumental to the Company's success in the enterprise market.

A central software component of the Company's secure communications platform is the BlackBerry Enterprise Mobility Suite, which combines and integrates mobile security, management, productivity and collaboration solutions with best-in-class application security and containerization, identity and access management, and EFSS with file level data protection, all at a global scale. The BlackBerry Enterprise Mobility Suite supports all of the major operating systems and device ownership models employed in the enterprise.

The Enterprise Mobility Suite integrates a broad portfolio of technologies and solutions, including BlackBerry UEM, BlackBerry Dynamics and BlackBerry Workspaces. BlackBerry UEM offers a "single pane of glass", or unified console view, for managing and securing devices, applications, identity, content and 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 Workspaces is a document collaboration solution that embeds digital rights management protection in shared files to address the challenges of document security, manageability, tracking and compliance among multiple users in the enterprise.

The Company intends to maintain its leadership position and increase its market share in endpoint security and communications by continuing to expand its enterprise software portfolio through both the internal development and acquisition of technologies focused on security and productivity solutions.

<u>BlackBerry AtHoc</u>

In fiscal 2016, the Company expanded its messaging capabilities with the acquisition of AtHoc, Inc., a secure, networked crisis communications solutions market leader. The BlackBerry AtHoc software platform enables people, devices and organizations to exchange critical information in real time during business continuity and life safety operations. The platform securely connects with a diverse set of endpoints to distribute emergency mass notifications, improve personnel accountability and facilitate the bidirectional collection and sharing of data within and between organizations. BlackBerry AtHoc earned FedRAMP authorization in fiscal 2018 and helps to protect more than 70% of U.S. government personnel.

<u>SecuSUITE for Government</u>

The acquisition of Secusmart in fiscal 2015 strengthened the Company's secure communications portfolio by adding a leading secure voice and text messaging solution with Secusmart's advanced encryption and anti-eavesdropping capabilities for businesses and public authorities. The Company has since expanded on Secusmart's original hardware-based offering by launching SecuSUITE for Government, a certified, multi-OS voice encryption software solution that protects mobile calls and texts with a maximum level of security on the individual device level.

<u>BlackBerry Professional Services</u>

The BlackBerry Professional Services practice comprises BlackBerry Enterprise Consulting and BlackBerry Cybersecurity Consulting. BlackBerry Enterprise Consulting enables customers to optimize their experience with their chosen software solutions. Services include expert deployment support, end-to-end delivery (from system design to user training), application consulting, and experienced project management. As a platform-agnostic service, BlackBerry Enterprise Consulting offers customized strategy consultation, focusing on mobility-based challenges.

The acquisition of Encription in fiscal 2017 led to the announcement of the Company's professional cybersecurity services practice, BlackBerry Cybersecurity Consulting, which further expanded the Company's security portfolio. The Company's cybersecurity consultancy practice aligns clients' security with their business objectives to mitigate risk and enable digital transformation. The Company's cybersecurity consulting services and tools, combined with the Company's existing security solutions, help customers identify the latest cybersecurity threats, test for vulnerabilities, develop risk-appropriate mitigations, maintain IT security standards and techniques, and defend against the risk of future attacks.

<u>BBM Enterprise</u>

The Company continues to support and enhance BBM Enterprise, an enterprise-grade secure instant messaging solution compatible on both smartphones and desktops for messaging, voice, and video. BBM Enterprise offers rich features such as "read" and "delivered" statuses, message retraction and editing, and encrypts data both at rest and in transit.

<u>BlackBerry Spark Communications Services</u>

In fiscal 2017, the Company entered the CPaaS market by launching BBM Enterprise SDK to enable developers to integrate the secure messaging, voice, video and data sharing capabilities of BBM Enterprise into their own mobile and web applications. The Company re-branded the platform in fiscal 2019 as BlackBerry Spark Communication Services. BlackBerry Spark Communication Services enables developers to create in-app experiences that leverage the same secure, reliable network infrastructure that protects the BBM Enterprise solution.

<u>BlackBerry Cylance</u>

The acquisition of Cylance in late fiscal 2019 has provided the Company with a leading artificial intelligence 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 ("EDR") solution that provides both visibility into and prevention of malicious activity on an endpoint. The combined platform features industry-leading threat prevention modules to help organizations cope with the significant growth of cyberattacks. This enables organizations to employ a prevention-oriented strategy to ensure that threats do not run on a system. Unlike traditional signature-based cybersecurity products, the BlackBerry Cylance solution can predict whether code that has never been seen before, known in the cybersecurity industry as "zero-day" threats, is malicious and prevent it from running.

BTS

The BTS business includes BlackBerry QNX, BlackBerry Certicom, Paratek and BlackBerry Radar, as well as other units advancing emerging innovations such as BlackBerry Jarvis. The BTS business was created to position the Company's technology licensing businesses together under one leadership umbrella with a view to creating new revenue streams and enhancing value from the Company's technology.

<u>BlackBerry QNX</u>

BlackBerry QNX 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. BlackBerry QNX is a recognized leader in automotive software with products deployed in digital instrument clusters, infotainment, telematics systems and safety certified systems. BlackBerry QNX's technology has been deployed in more than 120 million vehicles and more than 45 automakers use BlackBerry QNX technology in major car brands around the world. With its field-proven technology and suite of safety certified products, BlackBerry QNX is also a preferred supplier for companies building medical devices, train-control systems, industrial robots, hardware security modules, building automation systems, green energy solutions, and other mission-critical applications.

The Company's automotive software technologies include the QNX Platform for ADAS, which enables automakers to build the next generation of advanced driver assistance systems, and other safety-certified products designed to alleviate the challenges of compliance with ISO 26262, the automotive industry's functional safety standard. BlackBerry QNX solutions also enable automakers to build integrated virtual cockpits that consolidate cockpit sub-systems with mixed safety-certification requirements, powered by a single high-performance system-on-chip. Additionally, the Company's secure automotive OTA software update solution allows OEMs to manage the life cycle of the software and security in their cars and extend the life of the platform, while keeping it secure.

<u>BlackBerry Jarvis</u>

In fiscal 2018, the Company introduced BlackBerry Jarvis, a cloud-based binary static application security testing platform that identifies vulnerabilities in deployed binary software used in automobiles and other embedded applications. BlackBerry Jarvis enables OEMs to scan software code components from third party suppliers quickly and cost-effectively and provides actionable insights to help automakers harden the cybersecurity posture.

BlackBerry Certicom

With over 500 patents covering elliptic curve cryptography, BlackBerry Certicom provides device security, anti-counterfeiting, and product authentication to deliver end-to-end security with managed public key infrastructure ("PKI"), code signing and other applied cryptography and key management solutions.

BlackBerry Certicom's offerings include its Managed Public Key Infrastructure Service, which helps device manufacturers and service providers to secure their Enterprise of Things networks and ecosystems by ensuring that the endpoints they connect are known and trusted, and its Asset Management System, a security and authentication solution for semiconductor vendors using outsourced manufacturing processes. In fiscal 2019, BlackBerry Certicom announced a new code signing key management server that enables Tier 1s and OEMs to sign and secure their device software with traditional or quantum-resistant cryptography.

Paratek

Paratek designs, develops and licenses its adaptive radio frequency ("RF") antenna tuning technology for smartphones. With the growth of RF bands to be covered, increasingly stringent performance requirements and design constraints, and the advent of carrier aggregation, RF antenna tuning is becoming a key differentiator to improve antenna performance. Paratek's proprietary closed loop tuning technology has been adopted by multiple OEMs and has numerous handset design wins.

BlackBerry Radar

The Company offers the BlackBerry Radar family of asset tracking and telematics solutions for the transportation and logistics industry. The BlackBerry Radar solution includes devices and secure cloud-based dashboards for tracking containers, trailers, chassis, flatbeds, and heavy machinery, for reporting locations and sensor data, and for enabling custom alerts and fleet management analytics. BlackBerry Radar devices are easy to install and connect, and provide long battery life with minimal maintenance requirements.

Licensing, IP and Other

The Licensing, IP and Other business consists of three units: Intellectual Property and Licensing ("IP&L"), Mobility Licensing, and other licensing programs such as BBM Consumer.

IP&L

The IP&L unit is responsible for the management and monetization of the Company's global patent portfolio. The patent portfolio continues to provide a competitive advantage in the Company's core product areas as well as providing leverage in the development of future technologies and licensing programs in both core and adjacent vertical markets. The Company owns rights to an array of patented and patent pending technologies which include, but are not limited to, operating systems, networking infrastructure, acoustics, messaging, enterprise software, automotive subsystems, cybersecurity and wireless communications. As of February 28, 2019, the Company owned approximately 37,500 worldwide patents and applications, with an average life of about 10 years.

In fiscal 2018, the Company entered into a strategic licensing agreement with Teletry under which Teletry may sublicense a broad range of the Company's patents to a majority of global smartphone manufacturers. The Company also continues to operate its own licensing program outside of Teletry's sublicensing rights and intends to increase recurring revenue from this program.

Mobility Licensing

In fiscal 2017, the Company licensed its device security software and service suite, as well as related brand assets, to three outsourcing partners who design, manufacture, sell and provide customer support for BlackBerry-branded handsets featuring the Company's secure Android software. TCL is the Company's exclusive licensee partner for all global markets other than India, Sri Lanka, Nepal and Bangladesh, where the Company's licensee partner is Optiemus, and Indonesia, where the Company's licensee partner is PT BB Merah Putih. During fiscal 2019, the Company's partners introduced several smartphones under this program: TCL launched the BlackBerry-branded KEY2 smartphone, and Optiemus launched the BlackBerry-branded Evolve and EvolveX smartphones.

In fiscal 2018, the Company entered into a licensing arrangement with NTD, under which handsets developed by NTD and branded by OEMs, carriers and local smartphone brands will use BlackBerry's device software and be marketed as

"BlackBerry Secure". In fiscal 2019, the Company entered into licensing arrangements with Punkt Tronics AG and Bullitt Group to bring to market a range of highly-secure products which will embed BlackBerry cybersecurity technology.

The Company delivers BlackBerry productivity applications to Android smartphone users around the world via the Google Play store, and also continues to develop updates for its legacy BlackBerry 10 platform.

BBM Consumer

In fiscal 2017, the Company entered into a strategic alliance and licensing agreement with Emtek, a leading media company in Indonesia, to provide cross-platform consumer BBM users with access to enriched content and services. This arrangement enables Emtek to develop and commercialize new consumer BBM applications and services for Android, iOS and Windows Phone devices.

Handheld Devices

During fiscal 2018, the Company sold through its remaining inventory of legacy devices such as the DTEK50 and DTEK60 secure Android smartphones and the Passport and Leap BlackBerry 10 smartphones, as well as smartphone accessories and non-warranty repair services, and no longer expects significant revenue from these activities. Handheld devices is a legacy business and not a part of the Company's strategic focus.

SAF

The SAF business consists of operations relating to subscribers using mobile devices with the Company's legacy BlackBerry 7 and prior operating systems. The Company continues to earn service access fees on these subscribers, whose network traffic utilizes the Company's infrastructure. In recent years, service revenue from the SAF business has declined significantly and the Company expects it to continue to decline. SAF is a legacy business and not a part of the Company's strategic focus.

Sales, Marketing, Distribution and Customers

The Company primarily generates revenue from the licensing of enterprise software and sales of associated services, including its endpoint management and security products, messaging products and services, cybersecurity consulting services, and the licensing of device software and BlackBerry branding. The Company also generates revenue from; (i) the embedded market through licensing BlackBerry QNX software products and providing professional services to support customers in developing their products; (ii) its BBM service; (iii) technology licensing; and (iv) accessories and non-warranty repairs from the legacy handheld business. The Company focuses on strategic industries with vertical-specific use cases, including regulated enterprise markets, such as financial services, government, healthcare, professional services and transportation, and other markets where embedded software and critical infrastructure are important, such as utilities, mining and manufacturing. For revenue and other financial information on the two most recently completed fiscal years, see the Company's Management Discussion and Analysis ("MD&A") for the fiscal year ended February 28, 2019, in the section entitled "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Revenue".

The Company licenses its secure communications platform, including its individual components and applications and complementary third-party applications through a geographically-dispersed direct sales force and value-added resellers. The Company also licenses its enterprise software and services through global wireless communications carriers, which are able to bill separately for BlackBerry UEM services, and other distribution partners around the world.

The Company primarily sells its BlackBerry Cylance solutions through value added resellers, distributors, managed security service providers, OEMs and alliance partners. BlackBerry Cylance has a joint sales approach where its field, inside and channel sales organizations operate in a direct sales enablement model with the channel partners to win end customers.

The Company licenses BlackBerry QNX, Certicom and Paratek technology and provides professional engineering services to OEM customers in the automotive, mobile and other embedded software markets via a direct sales force and indirectly through channel partnerships. The licenses are monetized as royalties on units shipped and through project development seats, tools and maintenance fees.

The Company has entered into device software licensing agreements, enabling selected partners to design, manufacture, sell and provide customer support for BlackBerry-branded smartphones on a global basis. BlackBerry continues to control and develop its handset security and software solutions, serve its customers and maintain trusted BlackBerry security software and the BlackBerry brand.

The Company markets and sells its BlackBerry Radar secure asset tracking products and services to enterprise users through its internal sales force as well as through third party distribution channels.

For revenues by geographic region for the two most recently completed fiscal years, see the Company's MD&A for the fiscal year ended February 28, 2019, in the section entitled "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Revenue - Revenue by Geography".

For customer concentration information during the two most recently completed fiscal years, see the Company's MD&A for the fiscal year ended February 28, 2019, in the section entitled "Market Risk of Financial Instruments - Credit and Customer Concentration."

Competitive Strengths

The Company's competitive strengths include the following:

Enterprise Solutions and Services

The Company's enterprise software portfolio offers leading unified endpoint management, secure business productivity, application containerization, secure collaboration and digital rights management capabilities.

The Company is recognized for attaining the highest levels of security certifications and approvals for many of its mobility and communications solutions.

The inclusion of a sophisticated network operations center in the BlackBerry infrastructure is also a key differentiator. The Company pioneered the use of this architecture to route messages reliably and efficiently to and from mobile devices, and over time has expanded capabilities to enable end-to-end secure communications between endpoints and applications and enterprise networks. In addition, the Company offers a rich development platform for partners to build custom enterprise applications.

Cylance

The BlackBerry Cylance cybersecurity platform employs an advanced implementation of machine learning engineered by a team of data scientists with deep expertise. BlackBerry Cylance efficiently collects cyberattack data across its large user base and uses it to train future models, continuously improving the effectiveness of its CylancePROTECT product. The deployment of CylancePROTECT materially decreases the number of attacks to which CylanceOPTICS must detect and respond. Furthermore, CylanceOPTICS feeds highly relevant information regarding attacks back to the model that powers CylancePROTECT. BlackBerry Cylance also offers an incident response and containment team that assists clients with forensic analysis and remediation of attacks that have run.

BTS

The Company's competitive strengths in its BTS business are rooted in the Company's broad technology portfolio, including BlackBerry QNX's trusted and safety-certified software and services for automotive and general embedded markets, BlackBerry Certicom's cryptography and secure manufacturing products, BlackBerry Jarvis' binary code static application security testing platform, and Paratek's adaptive RF antenna tuning technology. The Company also announced in fiscal 2019 that BlackBerry QNX technology is embedded in over 120 million cars.

BlackBerry AtHoc

BlackBerry AtHoc is a leader in network-centric, interactive crisis communication and is the leading provider of such solutions to the U.S. Department of Defense, the U.S. Department of Homeland Security, and leading healthcare, industrial and commercial organizations. The BlackBerry AtHoc platform integrates with legacy systems, is mobile, supports on-premise and cloud-based deployments, and has received FedRAMP authorization for its security.

BBM Enterprise

BBM Enterprise leverages the Company's secure network infrastructure to offer a rich messaging experience for iPhone, Android, BlackBerry, and desktop PC (Windows and macOS) users with features such as 1:1 and group chat, voice and video calling, and sharing of files, photos, videos and location. BBM Enterprise provides full end-to-end message encryption of content in transit and at rest (using FIPS 140-2 validated cryptographic libraries) for enterprise customers, with no separate hardware required. BBM Enterprise is integrated with BlackBerry UEM to allow customers to manage their users and IT policies both on-premise and through the cloud.

Handheld Devices

Legacy BlackBerry 10 smartphones continue to be used by governments and regulated industry customers with high security requirements, and the latest BlackBerry 10 operating system was certified for NIAP compliance.

Competition

The Company is engaged in markets that are highly competitive and rapidly evolving. Frequent new product introductions and changes to mobile devices, operating systems, applications, security threats, industry standards and the overall technology landscape result in continuously evolving customer requirements for mobile solutions. The Company competes with a broad range of vendors in each of its businesses. Key competitive factors important to the Company across its businesses include product features (including security features), relative price and performance, product quality and reliability, compatibility across ecosystems, service and support, and corporate reputation.

Providers of enterprise software solutions that compete with the Company's enterprise solutions and services offerings, including the BlackBerry Enterprise Mobility Suite, include VMware Inc., Microsoft Corporation ("Microsoft"), Citrix Systems, Inc. ("Citrix"), MobileIron Inc., SOTI Inc., Sophos Ltd. and IBM Corporation.

Providers of endpoint security technologies that compete with the BlackBerry Cylance platform include: incumbent antivirus vendors such as McAfee, Microsoft, and Symantec; Endpoint Protection Platform, or EPP, vendors, such as Cyber Reason and SentinelOne; EDR vendors, such as CarbonBlack and Crowdstrike, which primarily focus on continuous monitoring and response to advanced security threats; companies that provide endpoint systems management, such as IBM and Tanium; and large network security providers, such as Check Point Software, Cisco Systems, and Palo Alto Networks, which have entered the market primarily through acquisition.

Providers of embedded software that compete with the Company's BlackBerry QNX automotive business include customized Linux open-source operating system providers, Wind River Systems, Green Hills Software, Mentor Graphics Corporation and SYSGO AG.

Providers of solutions that compete with BlackBerry Radar are I.D. Systems, Inc., SkyBitz, ORBCOMM Inc., Spireon, Inc. and Omnitracs, LLC.

See also the Risk Factor entitled "The Company faces intense competition".

Product Design, Engineering and Research and Development

The Company's research and development ("R&D") strategy seeks to provide broad market applications for products derived from its technology base.

The Company dedicates a major portion of its R&D investments to the development of software products and services for its secure communications platform that meet the needs of both enterprise IT departments and end users. These include enterprise solutions and services in UEM, cybersecurity, messaging, productivity and collaboration offerings, analytics, application security and containerization, and EFSS. Solutions include leading security capabilities at each level of the platform in order to address the needs of customers for securing devices, applications, content and work data at rest and in transit.

The Company is making significant investments in research and development to continually enhance the BlackBerry Cylance platform and with new innovations, features and solutions. The Company is committed to hiring and retaining top data scientists and engineers in the areas of artificial intelligence and machine learning.

Additionally, BlackBerry QNX has developed and continues to enhance an embedded computing platform utilizing its unique micro-kernel operating system, multimedia and infotainment platform-specific middleware, as well as acoustic processing products. More recently, BlackBerry QNX has significantly increased its development focus on software innovations for autonomous and connected vehicles.

The Company's software development also supports products and services for BlackBerry-branded smartphones, including updates to the BlackBerry 10 operating system and enhancements for the Android operating system, such as advanced privacy controls, verified boot and secure bootchain, and Android kernel hardening. The Company is also expanding its mobile software expertise to develop highly secure operating system software enhancements for non-smartphone endpoints under the BlackBerry Secure brand. These BlackBerry Secure feature packs enable Enterprise of Things device manufacturers to securely build smart products without having to develop the necessary secure communications technology internally.

To support its BlackBerry Radar solution, the Company creates innovative and robust hardware designs combined with proprietary software and firmware features. These tightly integrated solutions allow the Company to customize its proprietary technical solutions to address new applications and market demands.

The Company's investment in longer term research is, in part, supported by taking advantage of specific government financial assistance programs where available. For example, the Company qualifies for investment tax credits on eligible expenditures on account of the Canadian Scientific Research and Experimental Development Program. For additional information, see Note 9 to the Consolidated Financial Statements.

Third Party Software Developers

<u>BlackBerry Development Platform</u>

The Company offers the BlackBerry Development Platform, an enterprise grade toolset which enables enterprise application developers and independent software vendors ("ISVs") to build secure, powerful and customized mobility solutions for almost every use case. The platform augments the capabilities of BlackBerry Dynamics for building secure applications, by adding tools for BlackBerry UEM, BlackBerry Workspaces, BlackBerry AtHoc and other products.

ISVs that use the BlackBerry Development Platform can make their applications available on the BlackBerry Marketplace for Enterprise Software, which contains over 100 enterprise applications. ISVs that use the BlackBerry Dynamics SDK can certify their applications to highlight their security compliance on the BlackBerry Development Platform.

The Company also offers BlackBerry Spark Communications Services to application developers to integrate the secure messaging, voice and video capabilities of BBM Enterprise into their applications and services.

BlackBerry QNX Development Platforms

BlackBerry QNX offers several development platforms, the core of which is the QNX Software Development Platform used by all QNX customers for the development of QNX-based systems and includes the QNX Neutrino Realtime Operating System and the QNX Momentics Tool Suite. BlackBerry QNX also offers other more specialized platforms such as QNX Platform for ADAS, a functionally safe software foundation that enables ADAS for automated driving, and QNX CAR Platform for Infotainment, a comprehensive stack that enables OEMs to rapidly bring to market secure, full-featured infotainment systems. These specialized platforms incorporate many BlackBerry QNX technologies and may also include best of breed third-party offerings in support of all major automotive grade hardware. Other platforms include the QNX Platform for Instrument Clusters, and the QNX Acoustics Management Platform.

Intellectual Property

The protection of intellectual property is an important part of the Company's operations. The policy of the Company is to apply for patents, acquire and/or seek other appropriate proprietary or statutory protection when it develops valuable new or improved technology. The Company believes that the rapid pace of technological change in the industries in which the Company operates makes patent and trade secret protection important, and that this protection must be supported by other means including the ability to attract and retain qualified personnel, new product introductions and frequent product enhancements.

The Company believes that its patent portfolio continues to provide a competitive advantage in its core product areas as well as provide leverage in the development of future technologies. The Company does not believe that it is dependent upon a single patent or even a few patents. Rather, the Company's success depends more upon its extensive know-how, innovative culture, and technical leadership.

The Company protects its technology through a combination of patents, designs, copyrights, trade secrets, confidentiality procedures and contractual arrangements. The Company seeks to patent key concepts, components, protocols, processes and other inventions that it considers to have commercial value or that will likely give the Company a technological advantage. Although the Company applies for patent protection primarily in Canada, Europe and the United States, the Company has filed, and will continue to file, patent applications in other countries where there exists a strategic technological or business reason to do so. To broadly protect the Company's inventions, the Company has a team of in-house patent attorneys and also consults with outside patent attorneys who interact with employees, review invention disclosures and prepare patent applications on a broad array of core technologies and competencies. As a result, the Company owns rights to an array of patented and patent pending technologies which include, but are not limited to, operating systems, networking infrastructure, acoustics, messaging, enterprise software, automotive subsystems, cybersecurity and wireless communications. As of February 28, 2019, the Company owned approximately 37,500 worldwide patents and applications.

It is the Company's general practice to enter into confidentiality and non-disclosure agreements with its employees, consultants, contract manufacturers, customers, potential customers and others to attempt to limit access to, and distribution of, its proprietary information. In addition, the Company generally enters into agreements with employees that include an assignment to the Company of all intellectual property developed in the course of employment.

In fiscal 2018, the Company entered into a strategic licensing agreement with Teletry under which Teletry may sublicense a broad range of the Company's patents to a majority of global smartphone manufacturers. The Company also continues to operate its own licensing program outside of Teletry's sublicensing rights.

The Company does not rely primarily on patents or other intellectual property rights to protect or establish its market position; however, it is prepared to enforce its intellectual property rights in certain technologies when attempts to negotiate mutually agreeable licenses are not successful. The Company also enters into inbound licensing agreements related to technology and intellectual property rights, including agreements to obtain rights that may be necessary to produce and sell products.

Production

The Company experienced continued growth of its software licensing model during fiscal 2019. The Company licenses its device security software and service suite, as well as related brand assets, to TCL and Optiemus for BlackBerry-branded smartphones as well as to Punkt Tronics AG and Bullitt Group for other connected devices using the BlackBerry Secure brand. The design, manufacture, sales, and customer support of BlackBerry-branded smartphones and BlackBerry Secure connected devices is undertaken by these licensed partners, who have agreed to adhere to the Company's quality, security, and branding guidelines.

The Company outsources the hardware manufacturing requirements for its BlackBerry Radar business to specialized global electronic manufacturing service providers who are positioned to meet the volumes, scale, timing, cost and quality requirements of the Company. The Company generally provides sourcing guidance and decisions for materials are made jointly with the outsourcing partner. In most cases the ongoing supply is the sole responsibility of the outsourcing supplier.

Industry Associations

The Company is an active participant in numerous industry associations and standards bodies. The Company's involvement with leading associations includes standards development, government advocacy, joint marketing, participation in conferences and trade shows, training, technology licensing by the Company and business development.

Social and Environmental Regulations

The Company's operations are subject to regulation under various provincial, state, federal and international laws relating to environmental protection, the proliferation of hazardous substances, and social issues such as conflict minerals and human trafficking and slavery. In parts of Europe, North America, Asia-Pacific and Latin America, the Company is obligated to comply with substance restrictions, packaging regulations, energy efficiency ratings and certain product take-back and recycling requirements, principally for the BlackBerry Radar business. In addition, a growing list of jurisdictions have enacted social responsibility regulations such as the conflict minerals provisions of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act and the U.K. Modern Slavery Act which require the Company to comply with certain due diligence and disclosure obligations. These and other similar laws may become more stringent over time, may come into force in more jurisdictions where the Company operates and may require the Company to incur additional compliance costs.

Additionally, the European Union's General Data Protection Regulation ("GDPR") took effect in May 2018 and applies to the Company's products and services used by people in Europe. The GDPR includes new operational requirements for companies that receive or process personal data of residents of the European Union and provides for significant penalties for non-compliance.

Corporate Responsibility

The Company is committed to operating its business consistent with the highest ethical standards and has adopted policies and practices that require the same of its business partners. The Company's business is based on trust, and the Company maintains its position as a global leader in data security and privacy by developing new technologies, complying with established and evolving regulatory frameworks, and adhering to industry best practices.

In its procurement activities, the Company engages with its suppliers to conduct due diligence into the source of the so-called "conflict minerals" (which currently include the minerals from which gold, tantalum, tin, and tungsten are derived) that are necessary to the functionality or production of the Company's hardware products.

The Company also seeks to make a positive impact in the communities in which it operates by investing in strategic charitable partnerships, supporting charitable endeavours by employees, and building community relationships through local offices.

The Company has formalized a number of policies to reflect the Company's commitment to responsible business practices, including a Human Rights Policy, and periodically issues a corporate responsibility report. This report and other documents and policies relating to the Company's corporate responsibility initiatives can be viewed on the Company's website at http://ca.blackberry.com/company/about-us/corporate-responsibility.html and are not incorporated by reference in this AIF.

Employees

As of February 28, 2019, the Company had 3,945 full-time employees.

Facilities

The Company's headquarters are located in Waterloo, Ontario, Canada. The Company's main campus in Waterloo consists of three leased buildings. The Company also operates facilities in the United States, Latin America, Asia-Pacific, Europe and the Middle East.

LEGAL PROCEEDINGS

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 industries in which the Company competes have 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 this AIF, 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 February 28, 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 possible 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, unsupportable, 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 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 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 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. All 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 17, 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 expects to file its Statement of Defence in the first quarter of fiscal year 2020, and discovery will then proceed.

On October 12, 2015, a group of institutional investors of Good Technology Corporation ("Good") filed a putative class action lawsuit on behalf of Good's common shareholders against members of Good's former board of directors (the "GTC Directors") related to the Company's acquisition of Good (the "GTC Lawsuit"). The plaintiffs allege that the GTC Directors breached their fiduciary duty by engaging in a self-interested transaction that benefited the preferred shareholders at the expense of the common shareholders. The plaintiffs are seeking monetary damages, as well as rescission of the merger agreement between Good and the Company. While neither Good nor the Company are parties to the GTC Lawsuit, Good has certain obligations to indemnify some of the defendants and is providing a defense. On October 29, 2015, Good filed a complaint alleging that the plaintiffs breached their contractual obligations under a voting agreement providing that, in the event of a sale transaction that was approved by both the GTC Directors and a majority of the Good preferred shareholders, the plaintiffs were required to vote their shares in favour of the transaction and refrain from exercising any appraisal or dissent rights (the "Voting Rights Lawsuit"). Good alleges that the filing of the GTC Lawsuit was a breach of the voting agreement. On December 31, 2015, several Good shareholders filed a petition seeking appraisal against Good (the "Appraisal Lawsuit"). On August 25, 2016, the Court granted the plaintiff's motion for leave to file an amended complaint in the GTC Lawsuit naming additional defendants, including JP Morgan Chase and various venture capital funds whose designees were Good directors (the "Fund Defendants"). Good and the Company are not named in the amended complaint. On May 23, 2017, the plaintiffs reached a tentative settlement with the GTC Directors and Fund Defendants of the GTC Lawsuit. On May 31, 2017, the plaintiffs and JP Morgan Chase reached a tentative settlement of the GTC Lawsuit. On July 24, 2017, Good, the petitioners in the Appraisal Lawsuit and the defendants in the Voting Rights Lawsuit entered into an Agreement of Settlement, Dismissal, and Release and filed same with the court. On August 8, 2017, the Court issued an order granting the parties' settlement terms. On August 18, 2017, the Company and JP Morgan Chase entered into a Settlement Funding Agreement, by which the Company agreed to fund JP Morgan Chase's settlement with the plaintiffs. On August 22, 2017, JP Morgan Chase and the plaintiffs filed a Stipulation and Agreement of Compromise and Settlement with the Court. The Court approved the settlement between plaintiffs and JP Morgan Chase and entered a Final Judgment on April 5, 2018. On November 9, 2017, the Company filed a demand for arbitration seeking the release of funds from an escrow fund account established when the Company acquired Good to indemnify the Company for certain costs incurred in connection with the defense and settlement of the GTC Lawsuit and the Appraisal Lawsuit. On August 15, 2018, all parties entered into a Global Settlement Agreement resolving all remaining disputes. On November 5, 2018, the Court approved the Global Settlement Agreement and all issues affecting the Company have been resolved. On February 11, 2019, the Delaware Supreme Court affirmed the Chancery Court's entry of a final judgment resolving all issues, and denied a motion for rehearing on February 28, 2019.

During the first quarter of fiscal 2018, the Company accrued $10 million for legal costs related to litigation arising out of its acquisition of Good. As a result of the Global Settlement Agreement reached in the second quarter of fiscal 2019, the Company recorded a recovery of $2 million against this accrual.

ENTERPRISE RISK MANAGEMENT

The Company recognizes that risks are associated with delivering on its strategy and achieving its corporate objectives. Managing these risks is an essential part of the Company's business and the Company aims to promote a culture of risk management and compliance at all levels in the organization. The Company has defined and implemented an approach to manage its exposure to risk, consisting of: (i) a risk management framework to regularly identify, assess, treat, monitor and report on current and potential risks, and (ii) a governance structure that clearly defines the responsibilities of the Board, the senior leadership team, employees and other stakeholders to support the risk management framework. This approach to enterprise risk management is integral to the Company's business activities and is designed to:

- promote effective corporate governance and decision-making by enabling the consistent identification and evaluation of risk on a consolidated basis;
- ensure that risks are managed proactively and appropriately in the context of the Company's strategy and objectives;
- support the development of internal controls;
- facilitate the reliability and transparency of financial and operational reporting;
- assist in compliance with laws, regulations, policies, and contracts; and
- reduce harm to financial performance and safeguard the Company's assets.

Risk Management Framework Policy and Risk Appetite

The Company's risk management framework policy defines responsibilities for the identification, assessment, management and reporting of risks, and sets out expectations for ownership, resource assignment and compliance. The scope of the framework embraces internal functions as well as those activities for which the Company engages support from third parties.

To support the risk management framework and risk oversight activities, the Company maintains a risk appetite statement that defines, by category of risk, the Company's tolerance for risk-taking having regard to potential rewards and overall business strategies and objectives. The Company's four risk categories are: (i) strategy and innovation, (ii) operations, (iii) legal, compliance and reputation, and (iv) financial management and reporting. The Company's risk profile is regularly assessed against the risk appetite statement, which is reviewed and updated as the Company's business strategy and operating environment evolve.

Risk Governance and Oversight

The Company utilizes a "three lines of defense" governance structure to define how the responsibility for risk management activities is assigned:

- The first line of defense for managing risks resides with the management of each business unit. Risk exposures are identified and mitigated at a granular level through various ongoing management activities including business planning, operations management, reporting, and process improvement projects.
- Oversight of business unit management is provided by the second line of defense, the Security Risk and Compliance Committee ("SRCC"), which meets at least quarterly and is supported by various compliance, security and control functions. The SRCC is composed of manager representatives from each major business group and provides strategic direction by defining key policies, identifying emerging risk trends, and sponsoring training.
- The internal audit function comprises the third line of defense, providing independent assurance of the effectiveness of the Company's risk management activities and internal controls related to (i) financial reporting and integrity and (ii) other areas of risk as assigned by the Audit and Risk Management Committee from time to time, including cybersecurity risk. The internal audit function may also review the governance structures and mandates of the first two lines of defense.

Additional governance and oversight is provided by the risk management and compliance council ("RMCC"), a council of internal senior leaders which oversee the risk management activities undertaken by business group management and the SRCC. The RMCC meets at least quarterly with the Chief Risk Officer serving as the Chair. The RMCC reviews the Company's risk profile, risk criteria and limits, and monitors remediation activities to address gaps. The RMCC also approves the risk appetite statement and promotes a culture of risk management and compliance across the Company.

The Chief Risk Officer provides regular reporting to the Board and the Audit and Risk Management Committee on the Company's risk profile and the activities overseen by the RMCC. The Board is ultimately responsible for overseeing the Company's risk identification, assessment, management, monitoring and reporting activities. The Audit and Risk Management Committee assists the Board with the oversight of enterprise risk management at the Company, including risk assessment, risk compliance, the internal audit function and the controls, processes and policies used to manage the Company's risk. The Compensation, Nomination and Governance Committee of the Board also assists the Board with the oversight of risk management and controls with respect to the Company's compensation policies and practices, including the administration of the Company's equity-based compensation plans.

Since June 2015, the Chief Information Officer has provided regular updates to the Board on the advancing maturity of the Company's cybersecurity program, including reports on threat monitoring, penetration testing, vulnerability remediation, encryption efforts and compliance activities. The updates also include reports on the Company's third-party cybersecurity accreditations and certifications, and on the advancement of the Company's security posture as scored using the U.S. National Institute of Standards and Technology (NIST) Cyber Security Framework.

RISK FACTORS

Investors in the Company's securities should carefully consider the following risks, as well as the other information contained in this AIF and in the Company's MD&A for the fiscal year ended February 28, 2019. If any of the following risks actually occurs, the Company's business could be materially harmed. The risks and uncertainties described below are not the only ones the Company faces. Additional risks and uncertainties, including those of which the Company is unaware or the Company deems immaterial, may also have a material adverse effect on the Company's business, financial condition and results of operations.

The Company may not be able to enhance, develop, introduce or monetize products and services for the enterprise market in a timely manner with competitive pricing, features and performance.

The industries in which the Company competes are characterized by increasingly rapid technological change, frequent new product introductions, frequent market price reductions, constant improvements in features and short product life cycles. The Company's future success depends upon its ability to enhance and integrate its current products and services, as well as the BlackBerry Spark platform, to provide for their compatibility with evolving industry standards and operating systems, to address competing technologies and products developed by other companies, and to continue to develop and introduce new products and services offering enhanced performance and functionality on a timely basis at competitive prices.

The process of developing new technology is complex and uncertain, and involves time, substantial costs and risks, which are further magnified when the development process involves multiple operating platforms. The development of next-generation technologies that utilize new and advanced features, including artificial intelligence and machine learning, involves making predictions regarding the willingness of the market to adopt such technologies over legacy solutions. The Company may be required to commit significant resources to developing new products, software and services before knowing whether such investment will result in products or services that the market will accept.

The Company's inability, for technological or other reasons, some of which may be beyond the Company's control, to enhance, develop, introduce and monetize products and services in a timely manner, or at all, in response to changing market conditions or customer requirements could have a material adverse effect on the Company's business, results of operations and financial condition or could result in its products and services not achieving market acceptance or becoming obsolete. In addition, if the Company fails to deliver a compelling customer experience or accurately predict emerging technological trends and the changing needs of customers and end users, or if the features of its new products and services do not meet the demands of its customers or are not sufficiently differentiated from those of its competitors, the Company's business, results of operations and financial condition could be materially harmed.

The Company may not be able to maintain or expand its customer base for its software and services offerings to grow revenue or achieve sustained profitability.

The Company has focused its strategy on software and services to grow revenue and generate sustainable profitability, including by commercializing the BlackBerry Spark platform as the leading secure, end-to-end communications platform for the Enterprise of Things.

For the Company to increase its software and services revenues, it must continually grow its customer base by attracting new customers or, in the case of existing customers, deploying software and services across more end points or attracting additional users in such existing customers' businesses. The Company also needs to sell additional software and services over time to the same customers, or have customers upgrade their level of service. If the Company is unable to promote a compelling value proposition to customers and its efforts to sell or upsell software or services as described above are not successful, its results of operations could be materially impacted. Further, although recent attacks on prominent enterprises have increased market awareness of the importance of cybersecurity, if the general level of cyberattacks declines or customers perceive that it has declined, the Company's ability to attract new customers and expand its sales to existing customers could be harmed.

Existing customers that purchase the Company's software and services have no contractual obligation to renew their subscriptions or purchase additional solutions after the initial subscription or contract period. The Company's customers' expansion and renewal rates may decline or fluctuate as a result of a number of factors, including the perceived need for such additional software and services, the level of satisfaction with the Company's software and services, features or functionality, the reliability of the Company's software and services, the Company's customer support, customer budgets and other competitive factors, such as pricing and competitors' offerings. For smaller or simpler deployments, the switching costs and time are relatively minor compared to traditional enterprise software deployments and such a customer may more easily decide not to renew with the Company and switch to a competitor's offerings. For larger deployments, particularly with enterprise customers in highly regulated industries such as financial services, government, healthcare and transportation, the Company is subject to risks related to increased customer bargaining power, longer sales cycles, regulatory changes, and enhanced customer support obligations.

The Company must invest significant time and resources in providing ongoing value to these customers and in enhancing its reputation as an enterprise software vendor. If these efforts fail, or if the Company's customers do not renew for other reasons, or if they renew on terms less favourable to the Company, the Company's revenue may decline and its results of operations could be materially impacted.

The Company's ability to grow software and service revenue is also dependent on its ability to: (i) expand its distribution capabilities with partners, resellers and licensees, (ii) build a direct sales force, which requires significant time and resources, including investment in systems and training, and (iii) increase coordination across business units to leverage sales leads and synergistic products and services in the Company's portfolio. There can be no assurance that the Company will be successful in implementing its sales and distribution strategy. See also the Risk Factor entitled "The Company's success depends on its relationships with resellers and distributors".

The Company faces intense competition.

The Company is engaged in markets that are highly competitive and rapidly evolving, and has experienced, and expects to continue to experience, intense competition from a number of companies. No technology has been exclusively or commercially adopted as the industry standard for many of the products and services offered by the Company. Accordingly, both the nature of the competition and the scope of the business opportunities afforded by the markets in which the Company competes are uncertain.

The Company's competitors, including new market entrants, may implement new technologies before the Company does, deliver new products and services earlier, or provide products and services that are disruptive or that are attractively priced or enhanced or better quality compared to those of the Company, making it more difficult for the Company to win or preserve market share.

Some of the Company's competitors have greater name recognition, larger customer bases and significantly greater financial, technical, marketing, public relations, sales, distribution and other resources than the Company does. In particular, some of the Company's competitors have increased their focus on marketing and product development in the enterprise market. In the automotive sector, some of the Company's OEM and Tier 1 customers have accelerated internal development of embedded solutions. In addition, competition may intensify as the Company's competitors enter into business combinations or alliances and established companies in other market segments expand to become competitive with the Company's business.

The impact of the competition described above could result in fewer customer orders, loss of market share, pressure to reduce prices, commoditization of product and service categories in which the Company participates, reduced revenue and reduced margins. If the Company is unable to compete successfully, there could be a material adverse effect on the Company's business, results of operations and financial condition.

The Company must obtain and maintain certain product approvals and certifications from governmental authorities, regulated enterprise customers and network carrier partners in order to remain competitive, meet contractual requirements and enable its customers to meet their certification needs. Failure to maintain such approvals or certifications for the Company's current products or to obtain such approvals or certifications for any new products on a timely basis could have a material adverse effect on the Company's business, results of operations and financial condition. In addition, independent industry analysts often issue reports regarding endpoint security solutions and the perception of the Company's solutions in the marketplace, especially as compared to those of the Company's competitors, may be significantly influenced by these reports. If these reports are negative, less frequent or less positive than reports on our competitors' products, our competitive position may be harmed.

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.

BlackBerry products and services frequently involve the transmission, processing and storage of data, including proprietary, confidential and personally identifiable information, and can include on-premise and cloud deployments. Although malicious attempts to gain access to such information affect many companies across various industries, the Company is at a relatively greater risk of being targeted because of its reputation for security and the nature of its network operations.

The Company is continuously exposed to cyber threats through the actions of outside parties, such as hacking, viruses, and other malicious software, denial of service attacks, industrial espionage and other methods designed to breach the Company's network or IT security. The Company is also exposed to risk as a result of process, coding or human errors and through attempts by third parties to fraudulently induce employees to provide access to confidential or personal information. Additionally, the Company faces product security risk in the engineering process through the sharing of software code modules with its development partners.

The Company devotes significant resources to network security, encryption and authentication technologies and other measures, including security policies and procedures, vulnerability testing and awareness training, to mitigate cyber risk to its systems and data. In addition, the Company continuously engineers more secure products and services, enhances security and reliability features, deploys software updates to address vulnerabilities, and maintains the security infrastructure that protects the integrity of the Company's network, products and services. The Company also mitigates risk by actively monitoring external threats, reviewing best practices and implementing appropriate internal controls. However, the techniques used to obtain unauthorized access or to disable or degrade service are constantly evolving and becoming more sophisticated in nature, and frequently are not recognized or identified until after they have been deployed against a target. The Company may not be able to anticipate these techniques, to implement adequate preventative measures or to identify and respond to them in a timely manner, and the Company's efforts to do so may have a material adverse impact on the Company's operating margins, the user experience or compatibility with third party products and services. The Company's products and services are not designed to protect against all cyber threats and may not prevent all cyberattacks, including due to misconfiguration.

Although the Company has not experienced any material financial or other losses relating to technology failure, cyberattacks or security breaches, there is no assurance that the Company will not experience loss or damage in the future. If the network and product security measures implemented by the Company or its partners, including third-party data centre operators, cloud service providers and product manufacturers are breached, or perceived to be breached, or if the confidentiality, integrity or availability of the Company's data or the data of its customers, including legally protected personal data, is compromised, the Company could be exposed to significant litigation, service disruptions, remediation costs, regulatory sanctions, fines and contractual penalties. In addition, any such event could materially damage the Company's reputation, which is built in large measure on the security and reliability of BlackBerry products and services, and could lead customers, including the Company's most significant government customers, to reduce or delay future purchases or to purchase products or services of the Company's competitors. The Company's insurance coverage may be insufficient to cover all losses or types of claims that may arise from cyber threats.

The Company's success depends on its continuing ability to attract new personnel, retain existing key personnel and manage its staffing effectively.

The Company's success is largely dependent on its continuing ability to identify, attract, develop, motivate and retain skilled employees, including members of its executive team, top research developers and experienced salespeople with specialized knowledge. Competition for such people is intense, continuous, and increasing in the industries in which the Company participates, and the Company has experienced solicitations of its employees by its competitors.

To attract and retain critical personnel, the Company may experience increased compensation costs that are not offset by increased productivity or higher prices for our products and services. Also, the Company's financial results and share price performance (particularly for those employees for whom equity-based compensation is a key element of their total compensation), among other factors, may impact the Company's ability to attract new, and retain existing, employees. Any failure by the Company to attract and retain key employees could have a material adverse effect on the Company's business, results of operations and financial condition.

In addition, during periods of internal reorganization, the Company may experience losses of business continuity and accumulated knowledge, internal compliance gaps or other inefficiencies, including litigation claims by terminated employees. If the Company does not maintain appropriate staffing, develop effective business continuity and succession programs, mitigate turnover and effectively utilize employees with the right mix of skills and experience across the functions necessary to meet the current and future needs of its business, the financial and operational performance of the Company could suffer.

The Company's success depends on its relationships with resellers and channel partners.

The Company's ability to maintain and expand its market reach is increasingly dependent on establishing, developing and maintaining relationships with third party resellers and channel partners. The Company makes training available to its partners and develops sales programs to incentivize them to promote and deliver the Company's current and future products and services and to grow its user base.

If the Company is not able to effectively identify and establish new relationships with successful resellers and channel partners, or in maintaining or enhancing existing such relationships without giving rise to conflicts between channels, or if the Company's partners do not act in a manner that will promote the success of the Company's products and services, the Company's business, results of operations and financial condition could be materially adversely affected.

Many resellers and channel partners sell products and services of the Company's competitors and may terminate their relationships with the Company with limited or no notice and limited or no penalty. If the Company's competitors offer their products and services to the resellers and channel partners on more favorable contractual or business terms, have more products and services available, or those products and services are, or are perceived to be, in higher demand by end users, or are more lucrative for the resellers and channel partners, there may be continued pressure on the Company to reduce the price of its products and services, or those resellers and channel partners may stop offering the Company's products or de-emphasize the sale of its products and services in favor of the Company's competitors, which could have a material adverse effect on the Company's business, results of operations and financial condition.

Acquisitions, divestitures, investments and other business initiatives may negatively affect the Company's results of operations.

The Company has acquired, and continues to seek out opportunities to acquire or invest in, businesses, assets, products, services and technologies that expand, complement or are otherwise related to the Company's business or provide opportunities for growth. In addition, the Company is increasingly collaborating and partnering with third parties to develop technologies, products and services, as well as seek new revenue through partnering arrangements.

These activities, including the Cylance acquisition that closed in February 2019, involve significant challenges and risks, including: that they may not advance the Company's strategic objectives or generate satisfactory synergies or return on investment; that the Company may have difficulty integrating and managing new employees, business systems, development teams and product offerings; the potential loss of key employees of an acquired business; additional demands on the Company's management, resources, systems, procedures and controls; disruption of the Company's ongoing business; and diversion of management's attention from other business concerns. Acquisitions, investments or other strategic collaborations or partnerships may involve significant commitments of financial and other resources of the Company. If these fail to perform as expected, or if the Company fails to enter into and execute the transactions or arrangements needed to succeed, the Company may not be able to bring its products, services or technologies to market successfully or in a timely manner, which would have a material adverse impact on results of operations.

Furthermore, an acquisition may have an adverse effect on the Company's cash position if all or a portion of the purchase price is paid in cash, as was the case with the acquisition of Cylance, and common shares issuable in an acquisition would dilute the percentage ownership of the Company's existing shareholders. Any such activity may not be successful in generating revenue, income or other returns to the Company, and the financial or other resources committed to such activities would not be available to the Company for other purposes. In addition, the acquisitions may involve unanticipated costs and liabilities, including possible litigation and new or increased regulatory exposure, which are not covered by the indemnity or escrow provisions, if any, of the relevant acquisition agreements.

As business circumstances dictate, the Company may also decide to divest itself of assets or businesses. The Company may not be successful in identifying or managing the risks involved in any divestiture, including its ability to obtain a reasonable purchase price for the assets, potential liabilities that may continue to apply to the Company following the divestiture, potential tax implications, employee issues or other matters. The Company's inability to address these risks could adversely affect the Company's business, results of operations and financial condition.

The Company's products and services are dependent upon interoperability with rapidly changing systems provided by third parties.

The Company's platform depends on interoperability with operating systems, such as those provided by Apple, Google and Microsoft, as well as device manufacturers and automotive OEMs. Mobile operating systems are upgraded frequently in response to consumer demand and, in order to maintain the interoperability of its platform, the Company may need to release new software updates at a much greater pace than a traditional enterprise software company that supports only a single platform. In addition, the Company typically receives limited advance notice of changes in features and functionality of operating systems and mobile devices, and therefore the Company may be forced to divert resources from its preexisting product roadmap to accommodate these changes.

If the Company fails to enable IT departments to support operating system upgrades upon release, the Company's business and reputation could suffer. This could further disrupt the Company's product roadmap and cause it to delay introduction of planned products and services, features and functionality, which could harm the Company's business. Furthermore, some of the features and functionality in the Company's products and services require interoperability with application programming interfaces ("APIs") of other operating systems, and if operating system providers decide to restrict the Company's access to their APIs, that functionality would be lost and the Company's business could be impaired.

Operating system providers have included, and may continue to include, features and functionality in their operating systems that are comparable to elements of the Company's products and services, thereby making the Company's platform less valuable. The inclusion of, or the announcement of an intent to include, functionality perceived to be similar to that offered by the Company's products and services in mobile operating systems may have an adverse effect on the Company's ability to market and sell its products and services.

Failure to protect the Company's intellectual property could harm its ability to compete effectively and the Company may not earn the revenues it expects from intellectual property rights.

The Company's commercial success is highly dependent upon its ability to protect its proprietary technology. The Company relies on a combination of patents, copyrights, trademarks, trade secrets, confidentiality procedures and contractual provisions to protect its proprietary rights, all of which offer only limited protection. Despite the Company's efforts, the steps taken to protect its proprietary rights may not be adequate to preclude misappropriation of its proprietary information or infringement of its intellectual property rights, and the Company's ability to police such misappropriation or infringement is uncertain. The laws of certain countries in which the Company's products and services are sold or licensed do not protect intellectual property rights to the same extent as the laws of Canada or the United States.

With respect to patent rights, the Company cannot be certain whether any of its pending patent applications will result in the issuance of patents or whether the examination process will require the Company to narrow its claims. Furthermore, any patents issued could be challenged, invalidated or circumvented and may not provide proprietary protection or a competitive advantage.

In addition, a number of the Company's competitors and other third parties have been issued patents, and may have filed patent applications or may obtain additional patents and proprietary rights, for technologies similar to those that the Company has made or may make in the future. Public awareness of new technologies often lags behind actual discoveries, making it difficult or impossible to know all relevant patent applications at any particular time. Consequently, the Company cannot be certain that it was the first to develop the technology covered by its pending patent applications or that it was the first to file patent applications for the technology. In addition, the disclosure in the Company's patent applications may not be sufficient to meet the statutory requirements for patentability in all cases. As a result, there can be no assurance that the Company's patent applications will result in patents being issued.

While the Company enters into confidentiality and non-disclosure agreements with its employees, consultants, contract manufacturers, customers, potential customers and others to attempt to limit access to, and distribution of, proprietary and confidential information, it is possible that:

- some or all of its confidentiality agreements will not be honoured;
- third parties will independently develop equivalent technology or misappropriate the Company's technology or designs;
- disputes will arise with the Company's strategic partners, customers or others concerning the ownership of intellectual property;
- unauthorized disclosure or use of the Company's intellectual property, including source code, know-how or trade secrets will occur; or
- contractual provisions may not be enforceable.

In addition, the Company expends significant resources to patent and manage the intellectual property it creates with the expectation that it will generate revenues by incorporating that intellectual property in its products or services. The Company is also monetizing its patent portfolio through outbound patent licensing, and derives a significant portion of its patent licensing revenue from its agreement with Teletry. Although the Company operates its own direct licensing program, it may not be possible for the Company to offset any reduction in revenue from Teletry in the short term, or at all. In addition, changes in the law may weaken the Company's ability to collect royalty revenue for licensing its patents. Similarly, licensees of the Company's patents may fail to satisfy their obligations to pay royalties, or may contest the scope and extent of their obligations. Finally, the royalties the Company can obtain to monetize its intellectual property may decline because of the evolution of technology, changes in the selling price of products using licensed patents, or the difficulty of discovering infringements.

Detecting and protecting against the unauthorized use of the Company's products, technology proprietary rights, and intellectual property rights is expensive, difficult and, in some cases, impossible. Litigation may be necessary in the future to enforce or defend the Company's intellectual property rights and could result in substantial costs and diversion of management resources, either of which could harm the Company's business, financial condition and results of operations, and there is no assurance that the Company will be successful.

The Company could be found to have infringed on the intellectual property rights of others.

Companies in the software and technology industries, including some of the Company's current and potential competitors, own large numbers of patents, copyrights, trademarks and trade secrets and frequently engage in litigation based on allegations of infringement or other violations of intellectual property rights. Although the Company believes that third-party software included in the Company's products is licensed from the entity holding the intellectual property rights and that its products do not infringe on the rights of third parties, third parties have and are expected to continue to assert infringement claims against the Company in the future. The Company may be subject to these types of claims either directly or indirectly through indemnities that it provides to certain of its customers, partners and suppliers against these claims. As the Company continues to develop software products and expand its portfolio using new technology and innovation, its exposure to threats of infringement may increase.

Many intellectual property infringement claims are brought by entities whose business model is to obtain patent-licensing revenues from operating companies such as the Company. Because such entities do not typically generate their own products or services, the Company cannot deter their claims based on counterclaims that they infringe patents in the Company's portfolio or by entering into cross-licensing arrangements.

Regardless of whether patent or other intellectual property infringement claims against the Company have any merit, they could:

- adversely affect the Company's relationships with its customers;
- be time-consuming and expensive to evaluate and defend, including in litigation or other proceedings;
- result in negative publicity for the Company;
- divert management's attention and resources;
- cause product delays or stoppages;

- subject the Company to significant liabilities;
- require the Company to develop possible workaround solutions that may be costly and disruptive to implement; and
- require the Company to cease certain activities or to cease selling its products and services in certain markets.

In addition, any such claim may require the Company to enter into costly royalty agreements or obtain a license for the intellectual property rights of third parties. Such licenses may not be available or they may not be available on commercially reasonable terms.

Any of the foregoing infringement claims and related litigation could have a significant adverse impact on the Company's business and operating results, as well as the Company's ability to generate future revenues and profits. See also "Legal Proceedings" in this AIF.

Litigation against the Company may result in adverse outcomes.

In the course of its business, the Company receives general commercial claims related to the conduct of its business and the performance of its products and services, including product liability and warranty claims, employment claims and other litigation claims, which may potentially include claims relating to improper use of, or access to, personal data. In the case of product liability claims, the Company may be subject to such claims either directly or indirectly through indemnities that it provides to certain of its customers. The Company's exposure to product liability risk may increase as the Company continues to commercialize its software innovations for autonomous and connected vehicles.

In addition, the Company is subject to potential litigation claims arising from its disclosure practices. The Company is committed to providing a high level of disclosure and transparency and provides commentary that highlights the trends and uncertainties that the Company anticipates. Given the highly competitive and rapidly evolving industry in which the Company operates and the recent transition in the Company's business strategy, the Company's financial results may not follow any past trends, making it difficult to predict the Company's financial results. Consequently, actual results may differ materially from those expressed or implied by the Company's forward-looking statements and may not meet the expectations of analysts or investors, which can contribute to the volatility of the market price of the Company's common shares. Despite the Company's cautions in each earnings release, earnings conference call and securities filings that contain forward-looking statements, the Company may nevertheless be subject to potential securities litigation or enforcement actions.

Litigation resulting from these claims could be costly and time-consuming and could divert the attention of management and key personnel from the Company's business operations. The complexity of the technology involved and the inherent uncertainty of commercial, class action, securities, employment and other litigation increases these risks. In recognition of these considerations, the Company may enter into settlements resulting in material expenditures, the payment of which could have a material adverse effect on the Company's business, results of operation and financial condition. If the Company is unsuccessful in its defense of material litigation claims or is unable to settle the claims, the Company may be faced with significant monetary damages or injunctive relief against it that could have a material adverse effect on the Company's business, BlackBerry brand, results of operations and financial condition. Administrative or regulatory actions against the Company or its employees could also have a material adverse effect on the Company's business, BlackBerry brand, results of operations and financial condition. See also "Legal Proceedings" in this AIF.

The use and management of user data and personal information could give rise to liabilities as a result of legal, customer and other third-party requirements.

User data and personal information is increasingly subject to legislation and regulations in numerous jurisdictions around the world, such as the European Union's GDPR Protection Regulation, that is intended to protect the privacy and security of personal information, as well as the collection, storage, transmission, use and disclosure of such information.

The interpretation of privacy and data protection laws and their application to the Internet and mobile communications in a number of jurisdictions is unclear and in a state of flux. There is a risk that these laws may be interpreted and applied in conflicting ways from country to country and in a manner that is not consistent with the Company's current data protection practices. Complying with these varying international requirements could cause the Company to incur additional costs and change the Company's business practices. In addition, because the Company's services are accessible worldwide, certain foreign jurisdictions may claim that the Company is required to comply with their laws, even where the Company has no local entity, employees, or infrastructure. Non-compliance could result in penalties or significant legal liability and the Company's business, results of operations and financial condition may be adversely affected.

The Company's customers, partners and members of its ecosystem may also have differing expectations or impose particular requirements for the collection, storage, processing and transmittal of user data or personal information in connection with BlackBerry products and services. Such expectations or requirements could subject the Company to additional costs, liabilities or negative publicity, and limit its future growth. In addition, governmental authorities may require access to limited data stored by the Company through lawful access demands and capabilities, which could subject the Company to legal liability, unforeseen compliance cost and negative publicity. Even a perception that the Company's products or practices do not adequately protect users' privacy or data collected by the Company, made available to the Company or stored in or through the Company's products, or that they are being used by third parties to access personal or consumer data, could impair the Company's sales or its reputation and brand value.

The Company may not be able to obtain rights to use third-party software.

Many of the Company's products include intellectual property which must be licensed from third parties. The termination of any of these licenses, or the failure of such third parties to adequately maintain, protect or update their software or intellectual property rights, could delay the Company's ability to offer its products while the Company seeks to implement alternative technology offered by other sources (which may not be available on commercially reasonable terms) or develop such technology internally (which would require significant unplanned investment on the Company's part).

In addition, certain software that the Company uses may be subject to open source licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Some open source licenses contain requirements that the Company make available source code for modifications or derivative works created by the Company based upon the type of open source software used. If the Company combines its proprietary solutions with open source software in a certain manner, the Company could, under certain of the open source licenses, face claims from third parties claiming ownership of or demanding the public release of the source code of the Company's proprietary solutions, or demanding that the Company offer its solutions to users at no cost. This could allow the Company's competitors to create similar solutions with lower development effort and time and ultimately could result in a loss of revenue to the Company. The Company could also be subject to litigation by parties claiming that what the Company believes to be licensed open source software infringes their intellectual property rights.

The terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on the Company's ability to commercialize its products and services. In such an event, the Company could be exposed to litigation or reputational damage, and could be required to obtain licenses from third parties in order to continue offering its products and services or to re-engineer its products or services, or discontinue their sale in the event re-engineering cannot be accomplished on a timely basis, any of which could materially and adversely affect the Company's business and operating results.

Network disruptions or other business interruptions could have a material adverse effect on the Company's business and harm its reputation.

The Company's operations rely to a significant degree on the efficient and uninterrupted operation of complex technology systems and networks, which are in some cases integrated with those of carrier partners, cloud service providers, and third-party data centre operators. The Company's network operations and technology systems are potentially vulnerable to damage or interruption from a variety of sources, including by fire, earthquake, power loss, telecommunications or computer systems failure, cyber attack, human error, terrorist acts, war, and the threatened or actual suspension of BlackBerry services at the request of a government for alleged noncompliance with local laws or other events. The increased number of third party applications on the Company's network may also enhance the risk of network disruption or cyber attack for the Company. There may also be system or network interruptions if new or upgraded systems are defective or not installed properly, or if data centre operators fail to meet agreed service levels.

The Company has experienced network events in the past, and any future outage in a network or system or other unanticipated problem that leads to an interruption or disruption of BlackBerry services could have a material adverse effect on the Company's business, results of operations and financial condition, and could adversely affect the Company's longstanding reputation for reliability. As the Company moves to handle increased data traffic and support more applications or services, the risk of disruption and the expense of maintaining a resilient and secure network services capability may significantly increase.

The Company may not be able to generate revenue and profitability through the licensing of security software and services or the BlackBerry brand to device manufacturers.

Although the Company is focused on enterprise software and services, the BlackBerry brand has historically been strongly associated with devices and the Company has partnered with handset manufacturers for the development, distribution and marketing of BlackBerry-branded smartphones. The future success of the Company's handheld devices business is primarily dependent on the successful commercialization of devices featuring licensed BlackBerry mobile security software and services.

The Company's results of operations could be adversely affected if such devices, including BlackBerry-branded devices, do not achieve broad market acceptance. In addition, any failure by a licensee to act consistently with the Company's compliance, security or quality standards, including by introducing security vulnerabilities into BlackBerry-branded devices, may erode the value of the BlackBerry brand, impair the Company's relationship with current and potential customers, and adversely affect the Company's ability to sell software products and services that are commercially viable.

The Company faces substantial asset risk, including the potential for charges related to its long-lived assets and goodwill.

The Company's long-lived assets include items such as the Company's network infrastructure and certain intellectual property. As at February 28, 2019, the Company's long-lived assets had a carrying value of approximately $1.15 billion. Under U.S. GAAP, the Company reviews its long-lived assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. The Company's ability to generate sufficient cash flows to fully recover the current carrying value of these assets depends on the successful execution of its strategies. If it is determined that sufficient future cash flows do not exist to support the current carrying value, the Company will be required to record an impairment charge for long-lived assets in order to adjust the value of these assets to the newly established estimated value.

Goodwill represents the excess of the acquisition price over the fair value of identifiable net assets acquired. As at February 28, 2019, the Company's goodwill had a carrying value of approximately $1.46 billion. Under U.S. GAAP, the Company tests goodwill for impairment annually, during the fourth quarter, or more frequently if events or changes in circumstances indicate that the asset may be impaired. These events and circumstances may include a significant change in legal factors or in the business climate, a significant decline in the Company's share price, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, significant disposal activity and the testing of recoverability for a significant asset group. If any such events or circumstances arise, the Company may be required to record an impairment charge in the value of its goodwill.

The Company has incurred indebtedness, which could adversely affect its operating flexibility and financial condition.

The Company has, and may from time to time in the future have, third-party debt service obligations pursuant to its outstanding indebtedness, which currently includes $605 million aggregate principal amount of 3.75% Debentures. The degree to which the Company is leveraged could have important consequences, including that:

- the Company's ability to obtain additional debt financing may be limited;
- a portion of the Company's cash flow from operations or other capital resources will be dedicated to the payment of the principal of, and/or interest on, indebtedness, thereby reducing funds available for working capital, capital expenditures, strategic initiatives or other business purposes; and
- the Company's earnings under U.S. GAAP may be negatively affected to the extent that any indebtedness, such as the 3.75% Debentures, are accounted for by the Company at fair value and include embedded derivatives which fluctuate in value from period to period.

If the Company does not have sufficient cash flow from operations, it could result in its inability to pay amounts due under its outstanding indebtedness or to fund other liquidity needs and it may be required to refinance all or part of its then existing indebtedness (including the 3.75% Debentures), sell assets, reduce or delay capital expenditures or seek to raise additional capital, any of which could have a material adverse effect on the Company's business, results of operations and financial condition.

The 3.75% Debentures are subject to restrictive and other covenants that may limit the discretion of the Company and its subsidiaries with respect to certain business matters. These covenants place restrictions upon, among other things, the Company's ability to incur additional indebtedness or provide guarantees in respect of obligations, create liens or other encumbrances, pay dividends, merge or consolidate with another entity and enter into any speculative hedging transaction. A breach of any of these covenants could result in a default under the Company's outstanding indebtedness, which would have a material adverse effect on the Company's business, results of operations and financial condition. In addition, certain of the Company's competitors may operate on a less leveraged basis, or without such restrictive covenants, and therefore could have greater generating and financing flexibility than the Company.

There can be no assurance that the Company will be able to repay, restructure or refinance its indebtedness, including the 3.75% Debentures, as principal amounts become due, or that it will be able to do so on terms as favourable as those currently in place. If the Company is unable to refinance its indebtedness, or is only able to refinance indebtedness on less favourable terms, this may have a material adverse effect on the Company's business, results of operations and financial condition.

Government regulations applicable to the Company's products and services, including products containing encryption capabilities, could negatively impact the Company's business.

Certain government regulations applicable to the Company's products and services may provide opportunities for competitors or limit growth. The impact of potential incremental obligations may vary based on the jurisdiction, but regulatory changes could impact whether the Company enters, maintains or expands its presence in a particular market, and whether the Company must dedicate additional resources to comply with these obligations.

Various countries have enacted laws and regulations, adopted controls, license or permit requirements, and restrictions on the export, import, and use of products or services that contain encryption technology. In addition, from time to time, governmental agencies have proposed additional regulations relating to encryption technology, such as requiring certification, notifications, review of source code, or the escrow and governmental recovery of private encryption keys. Governmental regulation of encryption technology, including the regulation of imports or exports, could harm the Company's sales in one or more jurisdictions and adversely affect the Company's revenues. Complying with such regulations could also require the Company to devote additional research and development resources to change the Company's software or services or alter the methods by which the Company makes them available, which could be costly. In addition, failure to comply with such regulations could result in penalties, costs and restrictions on import or export privileges or adversely affect sales to government agencies or government funded projects.

Some of the Company's competitors do not have the same level of encryption in their technology and some competitors may be subject to less stringent controls on the export, import, and use of encryption technologies in certain markets. Also, several countries have adopted legislation authorizing the circumvention of encryption measures in limited circumstances. These legislative provisions could potentially be used by competitors to attempt to reverse engineer or find vulnerabilities in the Company's products and services. As a result, these competitors may be able to compete more effectively than the Company can in those markets.

The Company's business is subject to risks inherent in foreign operations, including fluctuations in foreign currencies.

Sales outside of North America account for a significant portion of the Company's revenue. The Company maintains offices in a number of foreign jurisdictions and intends to continue to pursue growth in select international markets. The Company is subject to a number of risks associated with its foreign operations that may increase liability and costs, lengthen sales cycles and require significant management attention. These risks include:

- compliance with the laws of the United States, Canada and other countries that apply to the Company's international operations, including import and export legislation, lawful access, and privacy, anti-corruption and consumer protection laws;
- unexpected changes in foreign regulatory requirements;
- reliance on third parties to establish and maintain foreign operations;
- instability in economic or political conditions;
- foreign exchange controls and cash repatriation restrictions;
- tariffs and other trade barriers;
- increased credit risk and difficulties in collecting accounts receivable;
- potential adverse tax consequences;
- uncertainties of laws and enforcement relating to the protection of intellectual property or secured technology;
- litigation in foreign court systems;
- cultural and language differences; and
- difficulty in managing a geographically dispersed workforce.

In addition, the Company is exposed to foreign exchange risk as a result of transactions in currencies other than its U.S. dollar functional currency. The majority of the Company's revenue is denominated in U.S. dollars; however, some revenue, and a substantial portion of operating costs and capital expenditures are incurred in other currencies, primarily Canadian dollars, Euros and British Pounds. For more details, please refer to the discussion of foreign exchange and income taxes in the Company's MD&A for the fiscal year ended February 28, 2019.

All of the above factors may have a material adverse effect on the Company's business, results of operations and financial condition and there can be no assurance that the policies and procedures implemented by the Company to address or mitigate these risks will be successful, that Company personnel will comply with them, or that the Company will not experience these factors in the future.

Errors in the Company's products and services can be difficult to detect and remedy and could have a material adverse effect on the Company's business.

The Company's products and services are highly complex and sophisticated and may contain design defects, bugs or security vulnerabilities that are difficult to detect and correct. Errors may be found in new products or services or improvements to existing products or services after delivery to the Company's customers. If these errors are discovered, the Company may not be able to successfully correct them in a timely manner or at all. The occurrence of defects, bugs or vulnerabilities in the Company's products or services could result in the delay or the denial of their market acceptance and may harm the Company's reputation, and correcting them could require significant expenditures by the Company. In addition, the failure of the Company's products or services to perform to end user expectations could give rise to product liability and warranty claims, including class action litigations, or to the withdrawal of certifications. The consequences of any such defects, bugs, vulnerabilities and claims could have a material adverse effect on the Company's business, results of operations and financial condition.

Failure of the Company's suppliers, subcontractors, channel partners and representatives to use acceptable ethical business practices or to comply with applicable laws could negatively impact the Company's business.

The Company expects its suppliers, subcontractors, licensees and other partners to operate in compliance with applicable laws, rules and regulations regarding working conditions, labour and employment practices, environmental compliance, anti-corruption, and patent and trademark licensing, as detailed in the Company's Supplier Code of Conduct. However, the Company does not directly control their labour and other business practices. If one of the Company's suppliers or subcontractors violates applicable labour, anti-corruption or other laws, or implements labour or other business practices that are regarded as unethical, or if a supplier or subcontractor fails to comply with procedures designed by the Company to adhere to existing or proposed regulations, the delivery of BlackBerry products could be interrupted, orders could be canceled, relationships could be terminated, the Company's reputation could be damaged, and the Company may be subject to liability. Any of these events could have a negative impact on the Company's business, results of operations and financial condition.

The Company relies on third parties to manufacture and repair its hardware products.

Although the Company has focused its growth strategy on software and services, it continues to outsource the manufacturing and repair of hardware products to third parties. The resources devoted by these third parties to meet the Company's manufacturing and repair requirements are not within the Company's control and there can be no assurance that manufacturing or repair problems will not occur in the future.

The Company's reliance on outsourcing its manufacturing and repair requirements, directly and indirectly, to third parties may also involve the following risks:

- failure to satisfy the Company's requirements on a timely basis;
- reduced ability to ensure product quality and reliability, and to monitor and manage quality controls;
- reduced control over costs as third parties procure inventory to build or repair the Company's products;
- reduced control over the Company's intellectual property; and
- risk of bankruptcy or business interruption on the part of the manufacturer or repair partner.

If the Company's partners fail to meet the Company's manufacturing and repair requirements on a timely basis, it could have an adverse effect on the Company's cost or quality of finished goods and its results of operations.

The Company may not be successful in fostering an ecosystem of third-party application developers.

The Company believes decisions by customers to purchase its products depend in part on the availability and compatibility of software applications and services that are developed and maintained by third-party developers. The Company may not be able to convince third parties to develop and maintain applications for its cybersecurity software and embedded solutions platforms. The loss of, or inability to maintain these developer relationships may materially and adversely affect the desirability of the Company's products and, hence, the Company's revenue from the sale of its products.

The Company is subject to risks related to regulations regarding health and safety, hazardous materials usage and conflict minerals, and to product certification risks.

The Company must comply with a variety of laws, standards and other requirements governing, among other things, health and safety, hazardous materials usage, packaging and environmental matters, and its products must obtain regulatory approvals and satisfy other regulatory concerns in the various jurisdictions in which they are sold. The Company is also subject to Securities and Exchange Commission ("SEC") disclosure requirements applicable to issuers that have contracted to manufacture products containing certain minerals that are mined from the Democratic Republic of Congo and adjoining countries. There can be no assurance that the direct or indirect costs of complying with such laws, standards and requirements will not adversely affect the Company's business, results of operations or financial condition. Any failure to comply with such laws, standards and requirements may subject the Company to regulatory or civil liability, fines or other additional costs, and reputational harm.

Tax provision changes, the adoption of new tax legislation or exposure to additional tax liabilities could materially impact the Company's financial condition.

The Company is subject to income, indirect (such as sales tax, sales and use tax and value-added tax) and other taxes in Canada and numerous foreign jurisdictions. Significant judgment is required in determining its worldwide liability for income, indirect and other taxes, as well as potential penalties and interest. In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate tax determination is uncertain. Although the Company believes that its tax estimates are reasonable, there can be no assurance that the final determination of any tax audits will not be materially different from that which is reflected in historical income, indirect and other tax provisions and accruals. Should additional taxes or penalties and interest be assessed as a result of an audit, litigation or changes in tax laws, there could be a material adverse effect on the Company's current and future results and financial condition. In addition, there is a risk of recoverability of future deferred tax assets.

The Company's future effective tax rate will depend on the relative profitability of the Company's domestic and foreign operations, the statutory tax rates and taxation laws of the related tax jurisdictions, the tax treaties between the countries in which the Company operates, the timing of the release, if any, of the valuation allowance, and the relative proportion of research and development incentives to the Company's profitability.

Under U.S. federal income tax laws, if a company is, or for any past period was, a passive foreign investment company ("PFIC"), there could be adverse U.S. federal income tax consequences to U.S. shareholders even if the Company is no longer a PFIC. While the Company does not believe that it is currently or has been a PFIC, there can be no assurance that the Company was not a PFIC in the past and will not be a PFIC in the future.

The Company expects its quarterly revenue and operating results to fluctuate.

The Company's revenues can change from one quarter to the next, including due to unexpected developments late in a quarter, such as lower-than-anticipated demand for the Company's products and services, issues with new product or service introductions, an internal systems failure, or challenges with one of the Company's distribution channels or other partners (including licensees and manufacturers).

Gross margins on the Company's products and services vary across product lines and can change over time as a result of product transitions, pricing and configuration changes, and cost fluctuations. In addition, the Company's gross margin and operating margin percentages, as well as overall profitability, may be materially adversely impacted as a result of a shift in product/service, geographic or channel mix, component cost increases, price competition, or the introduction of new products and services, including those that have higher cost structures or reduced pricing.

The market price of the Company's common shares is volatile.

The market price of the Company's outstanding common shares has been and continues to be volatile, due in part to uncertainty relating to the Company's ability to realize the benefits of its ongoing strategic initiatives. The market price of the Company's shares may fluctuate significantly in response to the risks described elsewhere in these Risk Factors, as well as numerous other factors, many of which are beyond the Company's control, including: (i) announcements by the Company or its competitors of new products and services, acquisitions, customer wins or strategic partnerships; (ii) forward-looking financial guidance provided by the Company, any updates to this guidance, or the Company's failure to meet this guidance; (iii) quarterly and annual variations in operating results, which are difficult to forecast, and the Company's financial results not meeting the expectations of analysts or investors; (iv) recommendations by securities analysts or changes in earnings estimates; (v) the performance of other technology companies or the increasing market share of such companies; (vi) results of existing or potential litigation; (vii) trading volume; or (viii) market rumours. In addition, dilutive share issuances (including in connection with the potential conversion of the 3.75% Debentures) could adversely affect the market price of the Company's outstanding common shares.

In addition, broad market and industry factors may decrease the market price of the Company's common shares, regardless of the Company's operating performance. The stock market in general, and the securities of technology companies in particular, have often experienced extreme price and volume fluctuations. Periods of volatility in the overall market and in the market price of the Company's securities may prompt securities class action litigation against the Company which, if not resolved swiftly, can result in substantial costs and a diversion of management's attention and resources. See also the Risk Factor entitled "Litigation against the Company may result in adverse outcomes" and the "Legal Proceedings" section in this AIF.

Adverse economic and geopolitical conditions may negatively affect the Company.

A slowdown in capital spending by end users of the Company's products and services, coupled with existing economic and geopolitical uncertainties globally and in the Company's target vertical markets, could substantially reduce the demand for the Company's products and services and adversely affect the Company's business, results of operations and financial condition.

Current and future conditions in the domestic and global economies remain uncertain, and it is difficult to estimate the level of economic activity for the economy as a whole. It is even more difficult to estimate growth in various parts of the economy, including the markets in which the Company participates. Because all components of the Company's budgeting and forecasting are dependent upon estimates of economic activity in the markets that the Company serves and demand for its products and services, economic uncertainties make it difficult to estimate future income and expenditures.

If economic or geopolitical uncertainties cause customers to reduce their IT budgets or to reduce or cancel orders for the Company's products and services, the Company's business, results of operations and financial condition may be adversely affected.

In addition, acts of terrorism and the outbreak of hostilities and armed conflicts within or between countries have created and may continue to create uncertainties that may affect the global economy and could have a material adverse effect on the Company's business, results of operations and financial condition.

DIVIDEND POLICY AND RECORD

The Company has not paid any cash dividends on its common shares during the last three fiscal years. The Company will consider paying dividends on its common shares in the future when circumstances permit, having regard to, among other things, the Company's earnings, cash flows and financial requirements, as well as relevant legal and business considerations.

DESCRIPTION OF CAPITAL STRUCTURE

The Company's authorized share capital consists of an unlimited number of voting common shares without par value, an unlimited number of non-voting, redeemable, retractable class A common shares without par value, and an unlimited number of non-voting, cumulative, redeemable, retractable preferred shares without par value, issuable in series. Only common shares are issued and outstanding.

Common Shares

Each common share is entitled to one vote at meetings of the shareholders and to receive dividends if, as and when declared by the Board. Dividends which the Board determines to declare and pay shall be declared and paid in equal amounts per share on the common shares and class A common shares at the time outstanding without preference or distinction. Subject to the rights of holders of shares of any class of share ranking prior to the common shares and class A common shares, holders of common shares and class A common shares are entitled to receive the Company's remaining assets ratably on a per share basis without preference or distinction in the event that it is liquidated, dissolved or wound-up.

Class A Common Shares

The holders of class A common shares are not entitled to receive notice of, or attend or vote at, any meeting of the Company's shareholders, except as provided by applicable law. Each such holder is entitled to receive notice of, and to attend, any meetings of shareholders called for the purpose of authorizing the dissolution or the sale, lease or exchange of all or substantially all of the Company's property other than in the ordinary course of business and, at any such meeting, shall be entitled to one vote in respect of each class A common share on any resolution to approve such dissolution, sale, lease or exchange. Dividends are to be declared and paid in equal amounts per share on all the common shares and the class A common shares without preference or distinction. Subject to the rights of holders of any class of share ranking prior to the common shares and class A common shares, in the event that the Company is liquidated, dissolved or wound-up, holders of common shares and class A common shares are entitled to receive the remaining assets ratably on a per share basis without preference or distinction.

The Company authorized for issuance the class A common shares when the Company was a private company to permit employees to participate in equity ownership. Class A common shares previously issued by the Company to such employees were converted on a one-for-one basis into common shares in December 1996. At this time, the Company has no plans to issue further class A common shares.

Preferred Shares

The holders of preferred shares are not entitled to receive notice of, or to attend or vote at, any meeting of the Company's shareholders, except as provided by applicable law. Preferred shares may be issued in one or more series and, with respect to the payment of dividends and the distribution of assets in the event that the Company is liquidated, dissolved or wound-up, rank prior to the common shares and the class A common shares. The Board has the authority to issue series of preferred shares and determine the price, number, designation, rights, privileges, restrictions and conditions, including dividend rights, of each series without any further vote or action by shareholders. The holders of preferred shares do not have pre-emptive rights to subscribe to any issue of the Company's securities. At this time there are no preferred shares outstanding and the Company has no plans to issue any preferred shares.

Convertible Debentures

Debentures

On September 7, 2016, the Company issued the 3.75% Debentures in an aggregate principal amount of $605 million, following the redemption of a prior series of debentures issued in 2013. The following is a summary of the material attributes and characteristics of the 3.75% Debentures. This summary does not purport to be complete and is subject to, and qualified in its entirety by, the terms of the Indenture (as defined below). Reference is made to the Indenture, which contains the complete description of the 3.75% Debentures, and which has been filed on SEDAR at www.sedar.com and with the SEC at www.sec.gov.

General

The 3.75% Debentures are direct, unsecured debt obligations of the Company and are issued under an indenture (the "Indenture") dated as of September 7, 2016 between the Company, as issuer, BlackBerry Corporation, BlackBerry UK Limited, BlackBerry Singapore Pte. Limited, Good Technology Corporation and QNX Software Systems Limited as guarantors (collectively, the "Guarantors") and BNY Trust Company of Canada, as trustee (the "Trustee"). The 3.75% Debentures are limited in the aggregate principal amount of $605,000,000.

The 3.75% Debentures have a maturity date of November 13, 2020 (the "Maturity Date"), subject to the prior conversion or payment thereof as provided by the Indenture.

Each of the Guarantors has separately guaranteed the payment of principal, premium (if any) and interest and other amounts due under the 3.75% Debentures, and the performance of all other obligations of the Company under the Indenture (the "Guarantees"). Other significant subsidiaries of the Company may be required to provide such Guarantees where they satisfy certain financial tests.

Interest

The 3.75% Debentures bear interest at a rate of 3.75% per annum, payable in equal quarterly instalments in arrears on the first day of March, June, September and December of each year. If an Event of Default (as defined below) has occurred and is continuing, the 3.75% Debentures will bear interest at a rate of 7.75% per annum during the period of the default.

Subordination

The 3.75% Debentures rank *pari passu* with one another, in accordance with their tenor without discrimination, preference or priority and, subject to statutory preferred exceptions, shall rank equally with all other present and future unsubordinated unsecured Indebtedness (as defined below) of the Company, other than the Specified Senior Indebtedness (as defined below) of the Company and the Guarantors. No payments shall be made on account of the 3.75% Debentures during any default of payment when due of any principal, interest or other amount owing with respect to Specified Senior Indebtedness, unless such Specified Senior Indebtedness shall first have been paid in full or provided for. The Trustee, on behalf of the holders of 3.75% Debentures (the "Holders"), may from time to time enter into subordination agreements with Senior Creditors (as defined below) to reflect the relative priorities of the Holders and such Senior Creditors.

Conversion Privilege

Each Holder shall have the right at its option to convert each $1,000 principal amount of its 3.75% Debentures into common shares at any time prior to the third business day prior to the Maturity Date. Common shares will be issued based on an initial conversion price of $10.00 principal amount of 3.75% Debentures per share (the "Conversion Price"), subject to adjustment in certain circumstances.

No Redemption

The 3.75% Debentures are not redeemable at the option of the Company prior to the Maturity Date.

Change of Control

If a change of control of the Company occurs involving: (i) the acquisition by any person or groups of persons acting jointly or in concert, directly or indirectly, in a single transaction or a series of related transactions, of voting control or direction over more than 35% of the then-outstanding common shares; (ii) the acquisition by any person (other than the Company or any of the Guarantors) or one or more members of a group of persons acting jointly or in concert (other than a group consisting solely of two or more of the Company and any of the Guarantors), directly or indirectly, in a single transaction or a series of related transactions, of all or substantially all of the assets of the Company and its subsidiaries, taken as a whole; or (iii) the completion of a merger, amalgamation, arrangement or similar transaction which results in holders of the Company's common shares immediately prior to the completion of the transaction holding less than 50% of the then outstanding common shares of the resulting entity after the completion of the transaction (a "Change of Control"), the Company is required to make an offer (a "Repayment Offer") to purchase all or, at the option of the Holders, a portion (in integral multiples of $1,000) of the principal amount of the 3.75% Debentures held by such Holders, at a price equal to 115% of the principal amount thereof plus accrued and unpaid interest, if any, to but excluding the Change of Control Repurchase Date (as defined in the Indenture) (the "Change of Control Repurchase Price"). The Company is not required to make that Repayment Offer to Fairfax Financial Holdings Limited ("Fairfax") or its affiliates, or any of their joint actors, if they caused such a Change of Control. Any 3.75% Debentures so repurchased will be cancelled and may not be reissued or resold.

Certain Covenants

The Company is bound by certain covenants under the Indenture. Positive covenants include: (i) payment of the Trustee's remuneration; (ii) maintenance of corporate existence and books of account; and (iii) payment of principal, premium (if any) and interest on the 3.75% Debentures when due and payable. Reporting covenants include: (i) provision of an annual compliance certificate regarding compliance with the terms of the Indenture and confirming that no Events of Default have occurred under the Indenture; (ii) provision of notice of an Event of Default or any event which, with the passing of time or giving of notice, would constitute an Event of Default; and (iii) provision of public disclosure documents to the Trustee or Holders in certain circumstances. Subject to customary exceptions, negative covenants include: (i) no liens on assets of the Company or its subsidiaries, except Permitted Liens (as defined in the Indenture, which include customary liens arising by operation of law, liens securing Specified Senior Indebtedness, Purchase Money Security Interests (as defined below) securing permitted Indebtedness, liens on real property incurred in connection with a sale and leaseback of permitted Indebtedness, and any other lien not prohibited by the Company's asset-backed lending facility (now terminated), subject to compliance with restrictions on incurring Indebtedness); (ii) a limitation on amalgamations and mergers except in compliance with customary successor entity provisions; and (iii) a limitation on dividends, dividend increases and speculative hedging transactions.

The Company and its subsidiaries are restricted, without consent of Holders of 66-2/3% of the outstanding 3.75% Debentures, from incurring any indebtedness or permitting any indebtedness to be outstanding, other than:

- (a) the 3.75% Debentures and the Guarantees;
- (b) Specified Senior Indebtedness in an aggregate principal amount at any one time outstanding not to exceed $550,000,000;
- (c) Indebtedness in an aggregate principal amount at any one time outstanding not to exceed $450,000,000, comprising:
  - (i) Indebtedness secured by a Purchase Money Security Interest including Capital Leases (as defined below);
  - (ii) Indebtedness incurred in connection with a sale and leaseback of real property;
  - (iii) Indebtedness incurred under a securitization or factoring of receivables;
  - (iv) Indebtedness of any subsidiary acquired by the Company or its subsidiaries that existed prior to such acquisition and not incurred in contemplation of such acquisition;
  - (v) Indebtedness incurred to finance insurance premiums;
  - (vi) other Indebtedness (other than Specified Senior Indebtedness) provided that such Indebtedness shall be unsecured; or
  - (vii) Indebtedness incurred to refinance any Indebtedness referred to in clauses (i) through (iv) above.

Events of Default

The Indenture provides for such events of default as are customary for indebtedness of this type (each, an "Event of Default") including: (i) a default in payment of any principal amount, purchase price or any Change of Control Repurchase Price when due; (ii) a default in payment of interest on any 3.75% Debentures when due and the continuance of such default for 10 days; (iii) a default in maintaining the Company's reporting issuer status or the listing of the common shares, or in providing an opinion in respect of new Guarantors, and the continuance of such default for five business days; (iv) a default in the delivery of common shares or cash due upon conversion of 3.75% Debentures, and the continuance of such default for three business days; (v) a default by the Company or any Guarantor in performing or observing any of the other covenants, agreements or material obligations of the Company or the Guarantor under the Indenture, and the continuance of such default for 30 days after written notice to the Company by the Trustee or by the Holders of not less than 25% in principal amount of outstanding 3.75% Debentures requiring the same to be remedied; (vi) the failure to make a Repayment Offer following the occurrence of a Change of Control; (vii) certain events of bankruptcy or insolvency with respect to the Company or any Guarantor; (viii) any of the Guarantees being held in any judicial proceeding to be unenforceable or invalid or ceasing for any reason to be in full force and effect or any Guarantor, or any person acting on behalf of a Guarantor, denying or disaffirming its obligations under its Guarantee; (ix) (A) if the Company or any Guarantor is in default (as principal or as guarantor or other surety) in the payment of any principal of or premium or make-whole amount on any Indebtedness that is outstanding in an aggregate principal amount of more than $50,000,000 (or its equivalent in the relevant currency of payment) beyond any period of grace provided with respect thereto, or (B) if the Company or any Guarantor is in default in the performance of or compliance with any term of any evidence of any Indebtedness in an aggregate outstanding principal amount of more than $50,000,000 (or its equivalent in the relevant currency of payment) or of any mortgage, indenture or other agreement relating thereto or any other condition exists, and in each case as a consequence of such default or condition such Indebtedness has become or has been declared due and payable before its stated maturity or before its regularly scheduled dates of payment, or (C) as a consequence of the occurrence or continuation of any event or condition (other than (a) the passage of time or (b) the right of the holder of Indebtedness to convert such Indebtedness into equity interests or (c) any mandatory prepayment provisions in an agreement governing Indebtedness unless such provisions also require the permanent prepayment of all Indebtedness then outstanding and, if applicable, the permanent cancellation of all other amounts available to be borrowed under such agreement), the Company or any Guarantor has become obligated to purchase or repay Indebtedness (including any Specified Senior Indebtedness but excluding the 3.75% Debentures) before its regular maturity or before its regularly scheduled dates of payment in an aggregate outstanding principal amount of more than $50,000,000 (or its equivalent in the relevant currency of payment); and (x) if the Company or any of its subsidiaries fails to pay final judgments aggregating in excess of an amount greater than $50,000,000 in cash (net of any amounts for which an insurance company is liable) rendered against the Company or any of its subsidiaries by a court of competent jurisdiction, which judgments are not paid, discharged or stayed for a period of 30 days after such judgments become final and non-appealable.

If an Event of Default has occurred and is continuing (other than an Event of Default due to an event of bankruptcy or insolvency), the Trustee may, in its discretion, and shall, at the written request of Holders of not less than 25% of the aggregate principal amount of the 3.75% Debentures then outstanding, declare the principal of (and premium, if any), together with accrued interest on all outstanding 3.75% Debentures to be immediately due and payable. If an Event of Default due to an event of bankruptcy or insolvency occurs, the principal of (and premium, if any), together with accrued interest on all outstanding 3.75% Debentures will immediately become due and payable without any action on the part of the Trustee or any Holders of 3.75% Debentures. The Holders of more than 66-2/3% of the principal amount of outstanding 3.75% Debentures may, on behalf of the Holders of all outstanding 3.75% Debentures, waive an Event of Default in the manner set forth below under "Modification or Waiver".

Modification or Waiver

The rights of the Holders may be modified or waived in accordance with the terms of the Indenture. For that purpose, among others, the Indenture contains certain provisions which will make binding on all Holders resolutions passed at meetings of the Holders (which may be called by the Company or the Trustee upon not less than 21 days' notice) by votes cast thereat by Holders of not less than 66-2/3% including waivers for certain events of default, or in the case of Extraordinary Resolutions (as defined in the Indenture) and waivers of certain defaults in payment or delivery of shares not less than 85%, of the aggregate principal amount of the 3.75% Debentures present at the meeting or represented by proxy, provided that a quorum for all meetings of Holders of 3.75% Debentures will be at least 25% of the aggregate principal amount of outstanding 3.75% Debentures represented in person or by proxy, or rendered by instruments in writing signed by the Holders of not less than 66-2/3%, or in the case of Extraordinary Resolutions not less than 85%, of the aggregate principal amount of the 3.75% Debentures then outstanding. In addition, without the approval of Holders by Extraordinary Resolution, the Indenture may not be amended to: (i) alter the manner of calculation of or rate of accrual of interest on the 3.75% Debentures or change the time of payment; (ii) make the 3.75% Debentures convertible into securities other than common shares; (iii) change the Maturity Date or any instalment of interest on the 3.75% Debentures; (iv) reduce the principal amount or Change of Control Repurchase Price with respect to the 3.75% Debentures; (v) make any change that adversely affects the rights of Holders to require the Company to purchase the 3.75% Debentures at the option of Holders; (vi) impair the right to institute suit for the enforcement of payments or the conversion of the 3.75% Debentures; (vii) change the currency of payment of principal of, or interest on, the 3.75% Debentures; (viii) except as contemplated by the Indenture, change the Conversion Price or otherwise adversely affect the Holders' conversion rights; (ix) release any of the Guarantors from any of their obligations under a Guarantee provided for in the Indenture, except in accordance with the Indenture; or (x) change the provisions in the Indenture that relate to modifying or amending the Indenture.

Defined Terms

In the foregoing summary, the following terms have the meanings set forth below:

"**Capital Lease**" means, with respect to any Person (as defined in the Indenture), any lease of any property (whether real, personal or mixed) by such Person as lessee that, in accordance with U.S. GAAP (as in effect on the date of the Indenture), is required to be classified and accounted for as a capital lease on a balance sheet of such Person;

"**Indebtedness**" means, with respect to a person, and without duplication:

(a) indebtedness of such person for monies borrowed or raised, including any indebtedness represented by a note, bond, debenture or other similar instrument of such person;

(b) reimbursement obligations of such person arising from bankers' acceptance, letters of credit or letters of guarantee or similar instruments;

(c) indebtedness of such person for the deferred purchase price of property or services, other than for consumable non-capital goods and services purchased in the ordinary course of business, including arising under any conditional sale or title retention agreement, but excluding for greater certainty ordinary course accounts payable;

(d) obligations of such person under or in respect of Capital Leases, synthetic leases, Purchase Money Security Interests or sale and leaseback transactions;

(e) the aggregate amount at which shares in the capital of such person that are redeemable at fixed dates or intervals or at the option of the holder thereof may be redeemed; and

(f) guarantees or liens granted by such person in respect of Indebtedness of another person;

"**Purchase Money Security Interest**" means a lien created or incurred by the Company or one of its subsidiaries securing Indebtedness incurred to finance the acquisition of property (including the cost of installation thereof), provided that (i) such lien is created substantially simultaneously with the acquisition of such property, (ii) such lien does not at any time encumber any property other than the property financed by such Indebtedness, (iii) the amount of Indebtedness secured thereby is not increased subsequent to such acquisition, and (iv) the principal amount of Indebtedness secured by any such lien at no time exceeds 100% of the original purchase price of such property and the cost of installation thereof, and for the purposes of this definition the term "acquisition" includes a Capital Lease;

"**Senior Creditor**" means a holder or holders of Specified Senior Indebtedness and includes any representative or representatives or trustee or trustees of any such holder or holders; and

"**Specified Senior Indebtedness**" means, without duplication, such Indebtedness as the Company shall designate as "Specified Senior Indebtedness" by notice to the Trustee in writing; provided that the aggregate principal amount of Specified Senior Indebtedness shall not exceed $550,000,000 at any one time outstanding; provided, further, that all Specified Senior Indebtedness must constitute:

(a) Indebtedness referred to in paragraphs (a) and (b) of the definition of Indebtedness above;

(b) renewals, extensions, restructurings, refinancings and refundings of any such Indebtedness; and

(c) guarantees of any of the foregoing.

MARKET FOR SECURITIES OF THE COMPANY

The Company's common shares are listed and posted for trading on the NYSE and the TSX under the symbol "BB". The volume of trading and price ranges of the Company's common shares on the NYSE and on the TSX during the previous fiscal year are set out in the following table:

	Common Shares – NYSE		Common Shares – TSX	
Month	Price Range (USD $)	Average Daily Volume	Price Range (CAD $)	Average Daily Volume
March 2018	$11.48-$13.38	5,894,076	$14.79-$17.48	2,545,717
April 2018	$10.05-$11.42	4,445,478	$12.85-$14.70	1,794,662
May 2018	$10.32-$12.03	2,904,298	$13.32-$15.58	1,301,511
June 2018	$9.52-$12.55	5,244,615	$12.63-$16.27	2,115,305
July 2018	$9.46-$10.63	4,266,586	$12.34-$13.95	1,464,554
August 2018	$9.64-$11.04	3,615,299	$12.55-$14.30	1,480,374
September 2018	$9.67-$12.00	4,605,973	$12.73-$15.50	1,802,652
October 2018	$8.63-$11.75	4,939,302	$11.35-$15.04	2,054,440
November 2018	$8.23-$9.75	3,869,238	$10.88-$12.76	1,327,308
December 2018	$6.57-$9.00	5,711,596	$8.94-$11.85	2,237,269
January 2019	$6.87-$8.18	2,852,718	$9.28-$10.75	1,199,834
February 2019	$8.02-$8.81	2,513,881	$10.49-$11.65	1,169,003

In addition, the 3.75% Debentures have been listed on the TSX since January 2017, under the symbol "BB.DB.V". There is limited trading in the 3.75% Debentures. During fiscal 2019, an aggregate of $8,485,392 principal amount of 3.75% Debentures was traded on only 22 days on the TSX, at prices ranging from $104.27 to $138.00 per $100 principal amount.

NORMAL COURSE ISSUER BID

On June 23, 2017, the Company announced that it had received acceptance from the TSX with respect to a normal course issuer bid ("NCIB") to repurchase up to 31 million common shares of the Company, representing approximately 6.4% of the public float of common shares outstanding as of May 31, 2017. The purpose of the NCIB is to offset a portion of the expected dilution from the Company's equity incentive plan and from the conversion of the Debentures. The Company also announced that it had entered into an automatic purchase plan with its designated broker.

The NCIB expired on June 26, 2018. During fiscal 2019, the Company did not repurchase any common shares. Over the course of the program, the Company repurchased approximately 2 million common shares for approximately $18 million. All common shares repurchased by the Company pursuant to the NCIB have been canceled.

DIRECTORS AND EXECUTIVE OFFICERS

As at the date hereof, the Company currently has a Board comprising eight persons. Pursuant to a special resolution of shareholders, the directors are authorized from time to time to increase the size of the Board and to fix the number of directors, up to the maximum of 15 persons, as currently provided under the articles of the Company, without the prior consent of the shareholders.

The Board has determined that each member of the Board except Mr. Chen is "independent" under the NYSE rules and applicable securities law requirements.

The Company made three executive officer appointments during fiscal 2019, naming Randall Cook as Chief Legal Officer and Corporate Secretary, Bryan Palma as President and Chief Operating Officer, and Stuart McClure as President of BlackBerry Cylance.

The following table sets forth the name, province or state, and country of residence of each director and executive officer of the Company and their respective positions and offices held with the Company and their principal occupations during the last five years. Each director is elected at the annual meeting of shareholders to serve until the next annual meeting or until a successor is elected or appointed.

Name and Residence	Current Position with Company	Principal Occupation During the Last Five Years (other than Current Position with Company)
John S. Chen California, USA	Chief Executive Officer; Executive Chair/Director (since 2013)	
Michael Daniels[1] Colorado, USA	Director (since 2014)	Chairman, TwoSix Labs, Inc. (2017 to present); Chairman, Logistics Management Institute (2011 to 2018); and Chairman, Invincea (2011 to 2017)
Timothy Dattels California, USA	Director (since 2012)	Senior Partner, TPG Capital (current)
Richard Lynch[1] Pennsylvania, USA	Director (since 2013)	President, FB Associates, LLC (current)
Laurie Smaldone Alsup[2] New Jersey, USA	Director (since 2015)	Chief Scientific Officer and Chief Medical Officer, NDA Group (2016 to present); President and Chief Scientific Officer, PharmApprove (2011 to 2016)
Barbara Stymiest, FCPA, FCA[1][2] Ontario, Canada	Director (since 2007)	Corporate Director (current)
V. Prem Watsa[1] Ontario, Canada	Lead Director (since 2013)[3]	Chief Executive Officer, Fairfax (current)
Wayne Wouters[2] Ontario, Canada	Director (since 2015)	Strategic and Policy Advisor, McCarthy Tétrault LLP (2015 to present); Clerk of the Privy Council of Canada (2009 to 2014)
Steven Capelli California, USA	Chief Financial Officer	Chief Financial Officer and Chief Operating Officer, BlackBerry Limited (2017 to 2019); Corporate Director (2013 to 2016)
Randall Cook California, USA	Chief Legal Officer and Corporate Secretary	General Counsel, Calypso Technology (2017 to 2018); Senior Vice President, General Counsel & Corporate Secretary, Advent Software (2002 to 2015)

Sai Yuen (Billy) Ho California, USA	Executive Vice President, Enterprise Products and Value Added Solutions	
Stuart McClure California, USA	President, BlackBerry Cylance	Co-founder, Chairman and Chief Executive Officer of Cylance Inc. (2012 to 2019)
Bryan Palma California, USA	President and Chief Operating Officer	Senior Vice President and General Manager, Cisco Systems (2013 to 2019)
Nita White-Ivy California, USA	Executive Vice President, Human Resources	Chief People Officer, SAP SuccessFactors (2012 to 2013)
Mark Wilson California, USA	Chief Marketing Officer	Senior Vice President, Marketing, BlackBerry Limited (2014 to 2017)

Notes:

1 Member of the Compensation, Nomination and Governance Committee (Chair - V. Prem Watsa).
2 Member of the Audit and Risk Management Committee (Chair - Barbara Stymiest).
3 Mr. Watsa first joined the Company as a director in January 2012, but then resigned on August 13, 2013 in connection with the formation of the Special Committee to explore strategic alternatives and rejoined the Company as a director in November 2013.

The Board has two active standing committees: an Audit and Risk Management Committee and a Compensation, Nomination and Governance Committee, the members of which are noted above.

As at February 28, 2019, the above directors and executive officers of the Company beneficially owned, or controlled or directed, directly or indirectly, 6,938,670 common shares of the Company representing approximately 1.27% of the issued and outstanding common shares of the Company. In addition, as of such date, Fairfax and certain of its wholly-owned or controlled subsidiaries beneficially owned approximately 46,724,700 common shares of the Company (the "Fairfax Shares") representing approximately 8.54% of the issued and outstanding common shares of the Company, or 96,724,700 common shares of the Company representing approximately 15.91% of the issued and outstanding common shares of the Company assuming conversion of all of its 3.75% Debentures and after giving effect to the conversion. Mr. Watsa, a director of the Company, is the Chairman and Chief Executive Officer of Fairfax and may be deemed under applicable U.S. securities laws to beneficially own the Fairfax Shares by virtue of his position at Fairfax.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

None of the directors or executive officers is, as at the date of this AIF, or was within 10 years before the date of the AIF, a director or chief executive officer or chief financial officer of any company (including the Company) that:

a) was subject to an order (as defined in National Instrument 51-102F2 of the Canadian Securities Administrators) that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or

b) was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer, or chief financial officer, and which resulted from an event that occurred while that person was acting in the capacity as a director, chief executive officer, or chief financial officer.

Other than as set out below, none of the directors, executive officers or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company,

a) is, at the date of this AIF, or has been within 10 years before the date of this AIF, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or

b) has, within the 10 years before this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

On July 17, 2009, Luna Innovations Inc. ("Luna") filed a voluntary petition for relief to reorganize under Chapter 11 of the United States Bankruptcy Code, including a proposed plan of reorganization with the United States Bankruptcy Court for the Western District of Virginia (the "Bankruptcy Court"). On January 12, 2010, the Bankruptcy Court approved the plan and Luna emerged from bankruptcy on that date. Mr. Daniels was a member of the board of Luna from June 2007 until his resignation on July 16, 2009.

On May 27, 2011, Phytomedics, Inc. ("Phytomedics") filed a voluntary petition for relief under Chapter 7 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of New Jersey. Dr. Smaldone Alsup was Chief Executive Officer, President and a member of the board of directors of Phytomedics from April 2008 until the date of the bankruptcy filing when a trustee was appointed.

On November 21, 2013, TranSwitch Corporation ("TranSwitch") filed a voluntary petition for relief under Chapter 7 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of Connecticut. Mr. Lynch was a member of the board of directors of TranSwitch from November 2010 and the chairman of the board from July 2012, until termination of the board on the date of the bankruptcy filing when a trustee was appointed.

On December 28, 2015, Kalobios Pharmaceuticals, Inc. ("Kalobios") filed a voluntary petition for protection under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware. Dr. Smaldone Alsup was a member of the board of directors of Kalobios from October 2013 until her resignation on November 19, 2015.

Conflicts of Interest

There is no existing or, to the Company's knowledge, potential material conflict of interest between the Company or a subsidiary of the Company and any director or officer of the Company or a subsidiary of the Company. See also "Interest of Management and Others in Material Transactions" in this AIF.

AUDIT AND RISK MANAGEMENT COMMITTEE

The Audit and Risk Management Committee's purpose is to provide assistance to the Board in fulfilling its legal and fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting, internal control, and legal compliance and risk management functions of the Company and its subsidiaries. It is the objective of the Audit and Risk Management Committee to maintain free and open means of communications among the Board, the independent auditors and the financial and senior management of the Company. The full text of the Audit and Risk Management Committee's Charter is included as Appendix A to this AIF.

Applicable securities laws require that, subject to certain exceptions, all members of the Audit and Risk Management Committee be "independent" under Sections 1.4 and 1.5 of National Instrument 52-110 of the Canadian Securities Administrators - *Audit Committees* and the rules and regulations of the NYSE, and "financially literate", meaning that the committee member has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to those issues reasonably expected to be raised by the Company's financial statements. Ms. Stymiest (Chair), Dr. Smaldone Alsup and Mr. Wouters are the members of the Audit and Risk Management Committee, and each is an independent director of the Company and financially literate, based on his or her education and experience as described below. The Audit and Risk Management Committee has also developed, in conjunction with the Company's Chief Financial Officer and other accounting personnel and representatives of the Company's external auditors, an orientation and continuing education program that will provide the new members of the Audit and Risk Management Committee with additional information and understanding about the accounting and financial presentation issues underlying the Company's financial statements.

The members of the Audit and Risk Management Committee bring significant skill and experience to their responsibilities including professional experience in accounting, business, management and governance, and finance. The specific education and experience of each member that is relevant to the performance of his or her responsibilities as such member of the Audit and Risk Management Committee are set out below:

Barbara Stymiest, FCPA, FCA (Chair) – Ms. Stymiest has an HBA from the Richard Ivey School of Business, University of Western Ontario and an FCA from the Chartered Professional Accountants of Ontario. From 2004 to 2011, Ms. Stymiest held various senior management positions in the Royal Bank of Canada and served as a member of the Group Executive responsible for the overall strategic direction of the Company. Prior to this, Ms. Stymiest held positions as Chief Executive Officer at TMX Group Inc., Executive Vice-President & CFO at BMO Capital Markets and Partner of Ernst & Young LLP. Ms. Stymiest is currently a Director of George Weston Limited, Sun Life Financial Inc., University Health Network and the Canadian Institute for Advanced Research.

Dr. Laurie Smaldone Alsup – Dr. Smaldone Alsup has an MD from Yale University, where she completed her residency in Internal Medicine and fellowship in Medical Oncology. She is Chief Operating Officer and Chief Scientific Officer of NDA Group AB (which merged in 2016 with PharmApprove, where Dr. Smaldone Alsup was President and Chief Scientific Officer), a leading drug development consulting company. She previously served in clinical and regulatory roles of increasing responsibility and scope while at Bristol Myers Squibb, including Senior Vice President of Global Regulatory Science, where she also developed and led Business Risk Management for the company. In addition, she served as CEO of Phytomedics, an early stage biopharmaceutical company focused on arthritis and inflammation. Dr. Smaldone Alsup has extensive risk management and executive leadership experience.

The Hon. Wayne Wouters – Mr. Wouters has a BComm (Honours) from the University of Saskatchewan and an MA in economics from Queen's University. From 2009 to 2014, Mr. Wouters was the Clerk of the Privy Council of Canada and held the roles of Deputy Minister to the Prime Minister, Secretary to the Cabinet and Head of the Public Service. Prior to his tenure as Clerk, Mr. Wouters was Secretary of the Treasury Board of Canada and served in deputy ministerial and other senior positions in the Canadian public service. He is currently Strategic and Policy Advisor to McCarthy Tétrault LLP and a director of Champion Iron Limited and Dexterra, and serves as a member of the Board of Trustees of United Way Worldwide. In 2017, he was invested into the Order of Canada as a member. Mr. Wouters has extensive experience with economic policy and international trade matters, which included oversight of multi-billion dollar budgets on behalf of the Government of Canada.

The Board has also determined that Ms. Stymiest is an audit committee financial expert within the meaning of General Instruction B(8)(a) of Form 40-F under the U.S. *Securities Exchange Act of 1934*, as amended. The SEC has indicated that the designation of a person as an audit committee financial expert does not make such person an "expert" for any purpose, impose any duties, obligations or liability on such person that are greater than those imposed on members of the Audit Committee and the Board who do not carry this designation or affect the duties, obligations or liability of any other member of the audit committee or the Board.

As set out in the Audit and Risk Management Committee's charter, the committee is responsible for pre-approving all non-audit services to be provided to the Company by its independent external auditor. The Company's practice requires senior management to report to the Audit and Risk Management Committee any provision of services by the auditors and requires consideration as to whether the provision of the services other than audit services is compatible with maintaining the auditor's independence. All audit and audit-related services are pre-approved by the Audit and Risk Management Committee. On September 27, 2017, for administrative convenience, the Audit and Risk Management Committee delegated to the Chair of the committee limited authority to pre-approve non-audit services to be provided by the auditors.

Audit Fees

The aggregate fees billed by Ernst & Young LLP ("EY") chartered accountants, the Company's independent external auditor, for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for professional services rendered by EY for the audit of the Company's annual financial statements or services that are normally provided by EY in connection with statutory and regulatory filings or engagements for such fiscal years were $3,685,510 and $4,273,803 (of which $1,926,094 related to prior fiscal years), respectively.

Audit-Related Fees

The aggregate fees billed by EY for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for assurance and related services rendered by EY that are reasonably related to the performance of the audit or review of the Company's financial statements and are not reported above as "Audit Fees" were $0 and $33,598, respectively. The fees paid in this category relate to provision of assurance services related to certain contractual compliance clauses, as well as the Company's corporate social responsibility disclosures.

Tax Fees

The aggregate fees billed by EY for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for professional services rendered by EY for tax compliance, tax advice, tax planning and other services were $7,205 and $6,265, respectively. Tax services provided included international tax compliance engagements.

All Other Fees

The aggregate fees billed by EY for the fiscal years ended February 28, 2019 and February 28, 2018, respectively, for professional services rendered by EY were $15,690 and $129,301, respectively.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

During the three-year period ending February 28, 2019 and during the current fiscal year up to the date hereof, none of the Company's directors, executive officers, 10 percent shareholders or any of their associates or affiliates had a material interest, directly or indirectly, in any transaction that has materially affected or is reasonably expected to materially affect the Company, other than Mr. Watsa, the Chairman and Chief Executive Officer, and a significant shareholder, of Fairfax, which participated in the debenture financing in 2013 and continues to hold a significant proportion of the outstanding 3.75% Debentures. See "Description of Capital Structure - Convertible Debentures" in this AIF.

TRANSFER AGENTS AND REGISTRARS

The Company's transfer agent and registrar in Canada is Computershare Investor Services Inc. of Canada at its offices in Toronto, Ontario. The co-transfer agent and registrar for the common shares in the United States is Computershare Trust Company, Inc. at its offices in Denver, Colorado.

MATERIAL CONTRACTS

Other than as noted below, the Company did not enter into any material contracts during fiscal 2019 and in prior years did not enter into any material contracts that are still in effect that are required to be filed pursuant to NI 51-102 of the Canadian Securities Administrators:

- the Agreement and Plan of Merger among BlackBerry Limited, BlackBerry Corporation, Cylance, Modena Merger Corp. and Fortis Advisors LLC dated November 16, 2018, providing for the acquisition of Cylance by the Company for a purchase price of $1.4 billion in cash plus the assumption of unvested employee equity awards. The Agreement and Plan of Merger is summarized in the Company's material change report filed on SEDAR on November 26, 2018, which is incorporated by reference in this AIF; and
- the Indenture providing for the issuance and conversion of the 3.75% Debentures, dated as of September 7, 2016, which has been filed on SEDAR, and the terms of which are summarized under "Description of Capital Structure - Convertible Debentures".

INTERESTS OF EXPERTS

Ernst & Young LLP, Chartered Professional Accountants, Licensed Public Accountants, is the external auditor who prepared the Independent Auditors' Report to Shareholders in respect of the audited annual consolidated financial statements of the Company for the year ended February 28, 2019 and the Report to Shareholders of an Independent Registered Public Accounting Firm on the Company's internal controls over financial reporting. Ernst & Young LLP is independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Ontario and applicable securities laws.

ADDITIONAL INFORMATION

Additional information related to the Company can be found on SEDAR at www.sedar.com or on the SEC's website at www.sec.gov. Additional financial information is provided in the Company's audited consolidated financial statements and the Company's MD&A for the year ended February 28, 2019, which can be found at www.sedar.com.

Additional information, including directors' and officers' remuneration and indebtedness to the Company, principal holders of the securities of the Company and securities authorized for issuance under equity compensation plans, is contained in the Company's most recent management information circular.

APPENDIX A

CHARTER OF THE AUDIT AND RISK MANAGEMENT COMMITTEE OF THE BOARD OF DIRECTORS OF BLACKBERRY LIMITED AS ADOPTED BY THE BOARD ON MARCH 28, 2019

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1. AUTHORITY

The Audit and Risk Management Committee (the "**Committee**") of the Board of Directors (the "**Board**") of BlackBerry Limited (the "**Corporation**") is established pursuant to Section 5.03 of the Corporation's Amended and Restated By-law No. A3 and Section 158 of the Ontario Business Corporations Act. The Committee shall be comprised of three or more directors as determined from time to time by resolution of the Board. Consistent with the appointment of other Board committees, the members of the Committee shall be appointed by the Board at the annual organizational meeting of the Board or at such other time as may be determined by the Board, and shall serve until the earlier of (i) the death of the member; or (ii) the resignation, disqualification or removal of the member from the Committee or from the Board. The Chair of the Committee shall be a member of the Committee designated by the Board, provided that if the Board does not so designate a Chair, the members of the Committee, by majority vote, may designate a Chair. The duties of the Chair are included in Annex A.

The presence in person or by telephone of a majority of the Committee's members shall constitute a quorum for any meeting of the Committee. All actions of the Committee will require the vote of a majority of its members present at a meeting of the Committee at which a quorum is present. Any decision or determination of the Committee reduced to writing and signed by all members of the Committee who would have been entitled to vote on such decision or determination at a meeting of the Committee shall be fully as effective as if it had been made at a meeting duly called and held.

2. PURPOSE OF THE COMMITTEE

The Committee's purpose is to provide assistance to the Board in fulfilling its legal and fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting, internal control and legal compliance functions of the Corporation and its subsidiaries as well as with respect to the oversight of enterprise risk management, including risk compliance, the internal audit function, and the controls, processes and policies used by management to effectively manage the Corporation's risks. It is the objective of the Committee to maintain free and open means of communication among the Board, the independent auditors and the financial and senior management of the Corporation.

3. COMPOSITION OF THE COMMITTEE

Each member of the Committee shall be an "independent" director within the meaning of Section 301 of the Sarbanes-Oxley Act of 2002 ("**Sarbanes-Oxley**"), the rules promulgated thereunder by the Securities and Exchange Commission (the "**SEC**"), the rules of the New York Stock Exchange ("**NYSE**") and National Instrument 52-110 "Audit Committees" of the securities regulators in Canada, and, as such, shall be free from any relationship that may interfere with the exercise of his or her independent judgment as a member of the Committee.

All members of the Committee shall be financially literate at the time of their election to the Committee. "Financial literacy" shall be determined by the Board in the exercise of its business judgment, and shall include the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can be reasonably expected to be raised by the Corporation's financial statements. At least one member of the Committee shall be an "audit committee financial expert" with the meaning of Section 407 of Sarbanes-Oxley and the rules promulgated thereunder by the SEC. Members of the Committee may not serve, in the aggregate, on more than 3 audit committees of public companies, unless the Board has determined that such service will not impair the member's ability to serve on the Committee.

Committee members, if they or the Board deem it appropriate, may enhance their understanding of finance and accounting by participating in educational programs conducted by the Corporation or an outside consultant or firm. At least annually, the Committee shall review its performance and the contribution of each of its members. This review will be completed on a confidential basis in conjunction with the annual Board performance review process.

4. MEETINGS OF THE COMMITTEE

The Committee shall meet with such frequency and at such intervals as it shall determine is necessary to carry out its duties and responsibilities. The Chair or any member of the Committee may call meetings of the Committee by notifying the Corporate Secretary of the Corporation. Notice of meetings may be done through any efficient communication medium (i.e. email, facsimile, mail, etc.) provided the notification is capable of being received at least twenty-four (24) hours in advance of the meeting. Each member of the Committee shall be responsible for providing up-to-date contact information to the Corporate Secretary to ensure efficient and timely communication. All independent directors may attend Committee meetings, provided that directors who are not members of the Committee shall not be entitled to vote, nor shall their attendance be counted as part of the quorum of the Committee.

As part of its purpose to foster open communications, the Committee shall meet at least annually with management and the Corporation's independent auditors in separate executive sessions to discuss any matters that the Committee or each of these groups or persons believe should be discussed privately. The Committee will have unrestricted access to management and employees of the Corporation in order to carry out its duties and responsibilities. In addition, the Committee should meet or confer with the independent auditors and management to review the Corporation's financial statements, MD&A, annual and interim earnings press releases and related filings prior to their public release and filing with the Ontario Securities Commission ("**OSC**"), the SEC or any other regulatory body. The Chair should work with the Chief Financial Officer and management to establish the agendas for Committee meetings. The Committee, in its discretion, may ask members of management or others to attend its meetings (or portions thereof) and to provide pertinent information as necessary.

Minutes of the Committee will be recorded and maintained by the Corporate Secretary and presented to the Committee at the next Committee meeting for approval. The Corporate Secretary, or his/her designate as approved by the Committee Chair, shall act as secretary for the meetings. For in camera sessions of the Committee without management present, minutes will be recorded and maintained by the Chair of the Committee or his/her designate. Each member of the Board will have access to the minutes of the Committee's meetings, regardless of whether he or she is a member of the Committee, and the Chair shall report to the Board at its next meeting on the activities, findings and recommendations of the Committee following each meeting. Minutes relating to in camera sessions may be provided to Board members with the consent of the Chair.

5. DUTIES AND RESPONSIBILITIES OF THE COMMITTEE

The Committee is responsible for the oversight of the Corporation's accounting, financial reporting and risk management processes, including (i) the Corporation's internal controls, and the nomination and appointment (subject to Board and shareholder approval), compensation, retention, evaluation and oversight of the work of the Corporation's independent auditors engaged for the purpose of preparing or issuing an audit report or related work or performing other audit, review or attest services for the Corporation, (ii) the oversight of enterprise risk management activities and (iii) oversight of the Corporation's internal audit function as more particularly detailed below. The independent auditors and the leader of the internal audit function or his/her designee must report and otherwise communicate directly to the Committee and are accountable to the Committee. The Committee's oversight responsibilities include the authority to approve all audit engagement fees and terms, as well as all permitted non-audit engagements and resolution of disagreements between management and the independent auditors regarding financial reporting as well as oversight of the annual internal audit plan. The Committee shall take such actions as it may deem necessary to satisfy itself that the Corporation's auditors are independent of management within the meaning of applicable law.

While there is no "blueprint" to be followed by the Committee in carrying out its duties and responsibilities, the following should be considered within the authority of the Committee:

Selection and Evaluation of External Auditors

(1) Make recommendations to the Board as to the selection of the firm of independent public accountants to audit the books and accounts of the Corporation and its subsidiaries for each fiscal year;

(2) Review and approve the Corporation's independent auditors' annual engagement letter, including the proposed fees contained therein;

(3) Review the performance of the Corporation's independent auditors, including the lead partner, discuss the timing and process for implementing the rotation of the lead partner, and make recommendations to the Board regarding the replacement or termination of the independent auditors when circumstances warrant;

(4) Oversee the independence of the Corporation's independent auditors by, among other things:

  (i) requiring the independent auditors to deliver to the Committee on a periodic basis a formal written statement delineating all relationships between the independent auditors and the Corporation;

  (ii) reviewing and approving hiring policies concerning partners, employees and former partners and employees of the present and former independent auditors; and

  (iii) actively engaging in a dialogue with the independent auditors with respect to any disclosed relationships or services that may impact the objectivity and independence of the independent auditors and taking appropriate action to satisfy itself of the auditors' independence;

(5) Instruct the Corporation's independent auditors that:

    (i) they are ultimately accountable to the Committee;

    (ii) they must report directly to the Committee; and

    (iii) the Committee is responsible for the appointment (subject to Board and shareholder approval), compensation, retention, evaluation and oversight of the Corporation's independent auditors;

(6) Review and pre-approve all audit and permitted non-audit services to be provided by the independent auditors to the Corporation, including tax services;

Oversight of Annual Audit and Quarterly Reviews

(1) Review and accept, if appropriate, the annual audit plan of the Corporation's independent auditors, including the scope of audit activities, and monitor such plan's progress and results during the year;

(2) Confirm through private discussions with the Corporation's independent auditors and the Corporation's management that no management restrictions are being placed on the scope of the independent auditors' work;

(3) Review the results of the year-end audit of the Corporation, including (as applicable):

    (i) the audit reports on the Corporation's financial statements and management's assessment of internal control over financial reporting, the published financial statements, the management representation letter, the "Memorandum Regarding Accounting Procedures and Internal Control" or similar memorandum prepared by the Corporation's independent auditors, any other pertinent reports and management's responses concerning such memorandum;

    (ii) the qualitative judgments of the independent auditors about the appropriateness, not just the acceptability, of accounting principles and financial disclosure practices used or proposed to be adopted by the Corporation and, particularly, about the degree of aggressiveness or conservatism of its accounting principles and underlying estimates;

    (iii) the selection and application of the Corporation's critical accounting policies;

    (iv) the methods used to account for significant unusual transactions;

    (v) the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;

    (vi) management's process for formulating sensitive accounting estimates and the reasonableness of these estimates;

    (vii) significant recorded and unrecorded audit adjustments;

    (viii) any material accounting issues among management, the internal audit function and the independent auditors; and

    (ix) other matters required to be communicated to the Committee under applicable auditing standards by the independent auditors;

(4) Review the Corporation's quarterly earnings press releases before they are disclosed to the public;

(5) Review the Corporation's interim financial statements and report thereon to the Board before they are approved by the Board and disclosed to the public;

(6) Review with management and the Corporation's independent auditors such accounting policies (and changes therein) of the Corporation, including any financial reporting issues which could have a material impact on the Corporation's financial statements, as are deemed appropriate for review by the Committee prior to any year-end or quarterly filings with the SEC, the OSC or other regulatory body;

Oversight of Risk Management

(1) Require the members of the Corporation's senior leadership team to identify and provide the Committee with a portfolio view of the major areas of risk facing the Corporation and management's strategies to manage those risks, including (without limitation) risks related to cybersecurity and data privacy;

(2) At least annually, review management's risk appetite and evaluate the extent to which the Corporation's risk profile and business planning are aligned with the risk appetite;

(3) At least annually, review in light of the risk appetite, the Corporation's enterprise risk management processes, including key policies and procedures for the effective identification, assessment, reporting, monitoring and control of the Corporation's principal risks and the Corporation's compliance with such policies and procedures;

(4) Require, at least quarterly, management to update the Committee on any material or noteworthy changes relating to (1)-(3), immediately above, and the activities of the Corporation's Risk Management Council;

(5) Consult periodically with the Compensation, Nomination and Governance Committee on risk management matters within its purview;

(6) Encourage an open and constructive risk dialogue between the Board and management on areas relating to risk management, and seek assurances from management on the effectiveness of risk management practices and controls;

(7) Consider emerging industry and regulatory risk management issues and the possible impact on the Corporation;

Oversight of the Internal Audit Function and Quarterly Reviews

(1) Review the Committee's level of involvement and interaction with the Corporation's internal audit function, including the Committee's line of authority over the internal audit function;

(2) Review and advise on the appointment, replacement, reassignment, or dismissal of the leader of the internal audit function;

(3) Review and approve the engagement of any firm of external advisors to support the internal audit function, including the fees thereof;

(4) Review the resources, performance, effectiveness, degree of independence and objectivity of the internal audit function and the adequacy of its audit process, and approve changes to its charter;

(5) Review internal audit reports, as well as management's response to such reports, and review and approve the annual internal audit plan, including the proposed audit universe, priorities, resourcing, and, on a quarterly basis, the status of the audit plan and the then current assessment and management of risks subject to internal audit review;

(6) Review the effectiveness of the internal audit function's methodology relating to its assessment of risks subject to internal audit purview, including the factors considered and the relative weighting of such factors, and consider changes in management's assessment of such risks;

(7) Review with management the progress and results of all internal audit projects, approve procedures for implementing accepted recommendations, and, when deemed necessary or appropriate by the Committee, direct the Corporation's Chief Executive Officer to assign additional audit projects to the leader of the internal audit function;

(8) Meet privately with the leader of the internal audit function to discuss any areas of concern, and to confirm that (i) significant issues, including any material disagreements with the senior leadership team, are brought to the Committee's attention and (ii) the integrity of the Company's internal control and management information systems are satisfactory;

Oversight of Financial Reporting Process and Internal Controls

(1) Review the adequacy and effectiveness of the Corporation's accounting and internal control policies and procedures through inquiry and discussions with the Corporation's independent auditors and management of the Corporation;

(2) Review with management the Corporation's administrative, operational and accounting internal controls and internal control over financial reporting, including the controls, security and functionality of the financial information technology systems, and evaluate whether the Corporation is operating in accordance with its prescribed policies, procedures and codes of conduct;

(3) Review with management and the independent auditors any reportable conditions and material weaknesses affecting the Corporation's internal control and financial reporting;

(4) Receive periodic reports from the Corporation's independent auditors and management of the Corporation to assess the impact on the Corporation of significant accounting or financial reporting developments proposed by the Chartered Professional Accountants Canada, the American Institute of Certified Public Accountants, the Financial Accounting Standards Board, the SEC, the OSC or other regulatory body, or any other significant accounting or financial reporting related matters that may have a bearing on the Corporation;

(5) Establish and maintain free and open means of communication between and among the Board, the Committee, the Corporation's independent auditors, the internal audit function and management;

Other Matters

(1) In addition to meeting regularly with the general counsel, meet as needed with outside counsel to review legal and regulatory matters, including inquiries from governmental and regulatory authorities and any matters that may have a material impact on the financial statements of the Corporation;

(2) Review the Corporation's policies relating to the avoidance of conflicts of interest and review and approve related party transactions as required by the Corporation's Code of Business Standards and Principles and applicable laws and listing rules, as well as policies and procedures with respect to officers' expense accounts and perquisites. The Committee shall consider the results of any review of these policies and procedures by the Corporation's independent auditors;

(3) Oversee, review, and periodically update the Corporation's Code of Business Standards and Principles and the Corporation's system to monitor compliance with and enforcement of the Code of Business Standards and Principles;

(4) Review and approve capital and operating expenditure limits on an annual basis and review and approval of any exceptions to such limits proposed by the Corporation from time to time;

(5) Oversee areas under the responsibility of management, including the examination of securities trading by insiders;

(6) Conduct or authorize investigations into any matters within the Committee's scope of responsibilities, including retaining outside counsel or other consultants or experts for this purpose;

(7) Establish procedures for the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal controls or auditing matters and the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters; and

(8) Perform such additional activities, and consider such other matters, within the scope of its responsibilities, as the Committee or the Board deems necessary or appropriate.

With respect to the exercise of its duties and responsibilities, the Committee should:

(1) exercise reasonable diligence in gathering and considering all material information;

(2) remain flexible, so that it may be in a position to best react or respond to changing circumstances or conditions;

(3) understand and weigh alternative courses of conduct that may be available;

(4) focus on weighing the benefit versus harm to the Corporation and its shareholders when considering alternative recommendations or courses of action;

(5) if the Committee deems it appropriate, secure independent expert advice and understand the expert's findings and the basis for such findings, including retaining independent counsel, accountants or others to assist the Committee in fulfilling its duties and responsibilities; and

(6) provide management, the Corporation's independent auditors and the leader of the internal audit function with appropriate opportunities to meet privately with the Committee.

Nothing in this Charter is intended, or should be determined, to impose on any member of the Committee a standard of care or diligence that is in any way more onerous or extensive than the standard to which all members of the Board are subject at law. The essence of the Committee's responsibilities is to monitor and review the activities described in this Charter to gain reasonable assurance, but not to ensure, that such activities are being conducted properly and effectively by the Corporation.

6. FUNDING

The Committee's effectiveness may be compromised if it is dependent on management's discretion to compensate the independent auditors or the advisors employed by the Committee. Consequently, the Corporation shall provide for appropriate funding, as determined by the Committee, for payment of any compensation (1) to any independent auditors engaged for the purpose of rendering or issuing an audit report or related work or performing other audit, review or attest services for the Corporation, and (2) to any independent counsel or other advisors employed by the Committee or engaged to support the internal audit function.

7. DISCLOSURE AND REVIEW OF CHARTER

The Charter shall be (1) published in the Corporation's annual report, information circular or annual information form, as required by law, and (2) be posted in an up-to-date format on the Corporation's web site. The Committee should review and reassess annually the adequacy of this Charter.

* * *

While the Committee has the duties and responsibilities set forth in this Charter, the Committee is not responsible for planning or conducting the audit or for determining whether the Corporation's consolidated financial statements are complete and accurate and are in accordance with generally accepted accounting principles. Similarly, it is not the responsibility of the Committee to ensure that the Corporation complies with all laws and regulations.

ANNEX A

(Duties and Responsibilities of the Chair)

In addition to the duties and responsibilities set out in the Board of Directors Mandate and this Charter, the Chair will:

1. Provide overall leadership to enhance the effectiveness of the Committee, including:
    a. Recommend and oversee the appropriate structure, composition, membership, and activities delegated to the Committee;
    b. Chair all meetings of the Committee at which the Chair is in attendance and manage the meeting agenda so that appropriate time and consideration can be given to the agenda items;
    c. Lead discussions, foster candor among meeting participants and encourage Committee members to ask questions of senior management, its advisors and advisors of the Committee, and express viewpoints during meetings;
    d. Schedule and set the agenda for Committee meetings with input from other Committee members, the Committee's advisors, the Executive Chair and the Lead Director of the Board of Directors, the CEO, the Corporate Secretary and senior management as appropriate and consider, on a proactive basis, emerging matters that should be addressed by the Committee;
    e. Facilitate the timely, accurate and proper flow of information to and from the Committee and, with input from Committee members, maintain an open dialogue with the Corporate Secretary regarding the timeliness, quantity, quality and completeness of information provided by senior management and advisors to the Committee;
    f. Arrange for management, internal personnel, external advisors, and others to attend and present at Committee meetings as appropriate;
    g. Arrange sufficient time during Committee meetings to fully discuss agenda items and, as appropriate, defer matters that require more information or time for discussion to a subsequent meeting;
    h. In cooperation with the Corporate Secretary and/or the Assistant Corporate Secretary, identify, monitor and report back to the Committee on the status of matters requiring action by senior management or the Committee following the meeting with a view to ensuring that matters are acted upon in a timely manner;
    i. Review draft minutes of Committee meetings prior to their presentation to the Committee for approval and ensure that minutes are reviewed and approved by the Committee in accordance with this Charter;
    j. Carry out the responsibilities and duties of the Committee, as outlined in this Charter, and
    k. Review this Charter and duties and responsibilities with Committee members at least annually.
2. Foster responsible decision-making by the Committee and its individual members.
3. Provide for in-camera sessions at all scheduled meetings of the Committee without management present and, as appropriate, without the Corporate Secretary present.
4. Following each meeting of the Committee, report to the Board of Directors on the activities, findings and any recommendations of the Committee.
5. Perform such other duties, within the scope of the Committee's duties and responsibilities, as may be assigned by the Board of Directors.

Exhibit 1.2

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of BlackBerry Limited

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of BlackBerry Limited (the "Company") as of February 28, 2019 and 2018, the related consolidated statements of operations, shareholders' equity, comprehensive income (loss) and cash flows for each of the three years in the period ended February 28, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at February 28, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended February 28, 2019, in conformity with United States generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of February 28, 2019, based on criteria established in Internal Control - Integrated Framework (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 5, 2019 expressed an unqualified opinion thereon.

Adoption of ASC 606

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for revenue from contracts with customers in 2019 due to the adoption of ASC 606, *Revenue from Contracts with Customers*.

Adoption of ASU 2016-1

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for financial instruments in 2019 due to the adoption of ASU 2016-1, *Financial Instruments*.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 1997.
Waterloo, Canada
April 5, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of BlackBerry Limited

Opinion on Internal Control over Financial Reporting

We have audited BlackBerry Limited's (the "Company") internal control over financial reporting as of February 28, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), (the "COSO criteria"). In our opinion, BlackBerry Limited maintained, in all material respects, effective internal control over financial reporting as of February 28, 2019, based on the COSO criteria.

As indicated in the accompanying Management's Annual Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Cylance Inc. which is included in the 2019 consolidated financial statements of the Company and constituted 2% and (3%) of total and net assets, respectively, as of February 28, 2019 and less than 1% and (6%) of revenue and income before income taxes, respectively, for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Cylance Inc.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements of the Company which comprise the consolidated balance sheets as of February 28, 2019 and 2018, the consolidated statements of operations, shareholders' equity, comprehensive income (loss) and cash flows for each of the three years in the period ended February 28, 2019 and the related notes, and our report dated April 5, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with United States generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with United States generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Waterloo, Canada
April 5, 2019

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

To the Shareholders of BlackBerry Limited

Management of BlackBerry Limited is responsible for the preparation and presentation of the Consolidated Financial Statements and all of the financial information in this Annual Report. The Consolidated Financial Statements were prepared in accordance with United States generally accepted accounting principles and include certain amounts based upon estimates and judgments required for such preparation. The financial information appearing throughout this Annual Report is consistent with the Consolidated Financial Statements. The Consolidated Financial Statements have been reviewed by the Audit and Risk Management Committee and approved by the Board of Directors of BlackBerry Limited.

In fulfilling its responsibility for the reliability and integrity of financial information, management has developed and maintains systems of accounting and internal controls and budgeting procedures. Management believes these systems and controls provide reasonable assurance that assets are safeguarded, transactions are executed in accordance with management's authorization and financial records are reliable for the preparation of accurate and timely Consolidated Financial Statements.

As permitted by published guidance of the U.S. Securities and Exchange Commissions (SEC), management's evaluation of and conclusion on the effectiveness of internal controls over financial reporting did not include the internal controls of Cylance Inc., which is included in the Company's fiscal 2019 consolidated financial statements. The aggregate assets acquired were $77 million, representing 2% of the Company's total assets as at February 28, 2019. The gross revenue earned from the date of acquisition to February 28, 2019, constituted less than 1% of the Company's gross revenue for the year ended February 28, 2019.

The Company's Audit and Risk Management Committee of the Board of Directors, which consists entirely of non-management independent directors, usually meets two times per fiscal quarter with management and the independent registered public accounting firm to ensure that each is discharging its respective responsibilities, to review the Consolidated Financial Statements and either the quarterly review engagement report or the independent registered public accounting firm's report and to discuss significant financial reporting issues and auditing matters. The Company's external registered public accounting firm has full and unrestricted access to the Audit and Risk Management Committee to discuss audit findings, financial reporting and other related matters. The Audit and Risk Management Committee reports its findings to the Board of Directors for consideration when the Board approves the Consolidated Financial Statements for issuance to the shareholders.

The Consolidated Financial Statements for fiscal 2019, fiscal 2018 and fiscal 2017 have been audited by Ernst & Young LLP, the independent registered public accounting firm appointed by the shareholders, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States).

/s/ John S. Chen
John S. Chen
President & CEO

Waterloo, Ontario
April 5, 2019

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

Consolidated Balance Sheets

	As at	
	February 28, 2019	February 28, 2018
Assets		
Current		
Cash and cash equivalents	$ 548	$ 816
Short-term investments	368	1,443
Accounts receivable, net	194	151
Other receivables	19	71
Income taxes receivable	9	26
Other current assets	56	38
	1,194	2,545
Restricted cash and cash equivalents	34	39
Long-term investments	55	55
Other long-term assets	28	28
Deferred income tax assets	2	3
Property, plant and equipment, net	85	64
Goodwill	1,463	569
Intangible assets, net	1,068	477
	$ 3,929	$ 3,780
Liabilities		
Current		
Accounts payable	$ 48	$ 46
Accrued liabilities	192	205
Income taxes payable	17	18
Deferred revenue, current	214	142
	471	411
Deferred revenue, non-current	136	53
Other long-term liabilities	19	23
Long-term debt	665	782
Deferred income tax liabilities	2	6
	1,293	1,275
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 - 547,357,972 voting common shares (February 28, 2018 - 536,733,733)	2,688	2,560
Deficit	(32)	(45)
Accumulated other comprehensive loss	(20)	(10)
	2,636	2,505
	$ 3,929	$ 3,780

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)

Consolidated Statements of Shareholders' Equity

	Capital Stock and Additional Paid-in Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Loss	Total
Balance as at February 29, 2016	$ 2,448	$ 768	$ (8)	$ 3,208
Net loss	—	(1,206)	—	(1,206)
Other comprehensive loss	—	—	(9)	(9)
Shares issued:				
Exercise of stock options	1	—	—	1
Stock-based compensation	60	—	—	60
Tax deficiencies related to stock-based compensation	(1)	—	—	(1)
Employee share purchase plan	4	—	—	4
Balance as at February 28, 2017	2,512	(438)	(17)	2,057
Net income	—	405	—	405
Other comprehensive income	—	—	7	7
Shares issued:				
Exercise of stock options	4	—	—	4
Stock-based compensation	49	—	—	49
Cumulative impact of adoption of ASU 2016-16	—	(3)	—	(3)
Share repurchase	(9)	(9)	—	(18)
Employee share purchase plan	4	—	—	4
Balance as at February 28, 2018	2,560	(45)	(10)	2,505
Net income	—	93	—	93
Other comprehensive loss	—	—	(4)	(4)
Shares issued:				
Exercise of stock options	1	—	—	1
Stock-based compensation	67	—	—	67
Cumulative impact of adoption of ASU 606	—	(86)	—	(86)
Cumulative impact of adoption of ASU 2016-01	—	6	(6)	—
Exchange shares related to Cylance acquisition	35	—	—	35
Value of pre-combination service related to Replacement Awards included in purchase consideration	21	—	—	21
Employee share purchase plan	4	—	—	4
Balance as at February 28, 2019	$ 2,688	$ (32)	$ (20)	$ 2,636

See notes to consolidated financial statements.

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

Consolidated Statements of Operations

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Revenue	$ 904	$ 932	$ 1,309
Cost of sales			
Cost of sales	206	262	542
Inventory write-down	—	—	150
	206	262	692
Gross margin	698	670	617
Operating expenses			
Research and development	219	239	306
Selling, marketing and administration	406	467	553
Amortization	136	153	186
Impairment of goodwill	—	—	57
Impairment of long-lived assets	—	11	501
Loss on sale, disposal and abandonment of long-lived assets	3	9	171
Debentures fair value adjustment	(117)	191	24
Arbitration awards and settlements, net	(9)	(683)	—
	638	387	1,798
Operating income (loss)	60	283	(1,181)
Investment income (loss), net	17	123	(27)
Income (loss) before income taxes	77	406	(1,208)
Provision for (recovery of) income taxes	(16)	1	(2)
Net income (loss)	$ 93	$ 405	$ (1,206)
Earnings (loss) per share			
Basic	$ 0.17	$ 0.76	$ (2.30)
Diluted	$ 0.00	$ 0.74	$ (2.30)

See notes to consolidated financial statements.

BlackBerry Limited

(United States dollars, in millions)

Consolidated Statements of Comprehensive Income (Loss)

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Net income (loss)	$ 93	$ 405	$ (1,206)
Other comprehensive income (loss)			
Net change in unrealized gains (losses) on available-for-sale investments	1	(3)	(7)
Net change in fair value of derivatives designated as cash flow hedges during the year, net of income taxes of nil (February 28, 2018 and February 28, 2017 - income taxes of nil)	(2)	1	2
Amounts reclassified to net income (loss) during the year, net of income taxes of nil (February 28, 2018 and February 28, 2017 - income taxes of nil)	3	(2)	(1)
Foreign currency translation adjustment	(6)	12	(3)
Actuarial losses associated with other post-employment benefit obligations	—	(1)	—
Other comprehensive income (loss)	(4)	7	(9)
Comprehensive income (loss)	$ 89	$ 412	$ (1,215)

See notes to consolidated financial statements.

BlackBerry Limited
(United States dollars, in millions)

Consolidated Statements of Cash Flows

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Cash flows from operating activities			
Net income (loss)	$ 93	$ 405	$ (1,206)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Amortization	149	177	239
Deferred income taxes	(25)	(7)	33
Stock-based compensation	67	49	60
Impairment of goodwill	—	—	57
Impairment of long-lived assets	—	11	501
Non-cash consideration received from contracts with customers	(46)	—	—
Loss on sale, disposal and abandonment of long-lived assets	3	9	171
Debentures fair value adjustment	(117)	191	24
Other long-term assets	—	(18)	—
Other long-term liabilities	(12)	5	(5)
Other	3	(6)	—
Net changes in working capital items			
Accounts receivable, net	(9)	49	166
Other receivables	52	(44)	17
Inventories	—	23	117
Income tax receivable	17	2	2
Other assets	(1)	16	45
Accounts payable	(15)	(82)	(179)
Accrued liabilities	(21)	(36)	(94)
Income taxes payable	(2)	4	(28)
Deferred revenue	(36)	(44)	(144)
Net cash provided by (used in) operating activities	100	704	(224)
Cash flows from investing activities			
Acquisition of long-term investments	(2)	(27)	(430)
Proceeds on sale or maturity of long-term investments	2	77	228
Acquisition of property, plant and equipment	(17)	(15)	(17)
Proceeds on sale of property, plant and equipment	1	3	95
Acquisition of intangible assets	(32)	(30)	(52)
Business acquisitions, net of cash acquired	(1,402)	—	(5)
Acquisition of short-term investments	(2,895)	(3,499)	(1,366)
Proceeds on sale or maturity of short-term investments	3,970	2,861	2,271
Net cash provided by (used in) investing activities	(375)	(630)	724
Cash flows from financing activities			
Issuance of common shares	5	8	5
Payment of contingent consideration from business acquisitions	—	—	(15)
Excess deficiency related to stock-based compensation	—	—	(1)
Common shares repurchased	—	(18)	—
Repurchase of 6% Debentures	—	—	(1,315)
Issuance of 3.75% Debentures	—	—	605
Net cash provided by (used in) financing activities	5	(10)	(721)
Effect of foreign exchange gain (loss) on cash, cash equivalents, restricted cash, and restricted cash equivalents	(3)	6	(1)
Net increase (decrease) in cash, cash equivalents, restricted cash, and restricted cash equivalents during the year	(273)	70	(222)
Cash, cash equivalents, restricted cash, and restricted cash equivalents, beginning of year	855	785	1,007
Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of year	$ 582	$ 855	$ 785

As at	February 28, 2019	February 28, 2018	February 28, 2017
Cash and cash equivalents	$ 548	$ 816	$ 734
Restricted cash and cash equivalents	34	39	51
	$ 582	$ 855	$ 785

See notes to consolidated financial statements.

1. BLACKBERRY LIMITED AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND CRITICAL ACCOUNTING ESTIMATES

BlackBerry Limited (the "Company") enables the Enterprise of Things by providing the technology that allows endpoints to trust one another, communicate securely, and maintain privacy. Based in Waterloo, Ontario, the Company was founded in 1984 and operates globally. The Company's common shares trade under the ticker symbol "BB" on the New York Stock Exchange and the Toronto Stock Exchange.

Basis of Presentation and Preparation

The consolidated financial statements include the accounts of all subsidiaries of the Company with intercompany transactions and balances eliminated on consolidation. All of the Company's subsidiaries are wholly owned. These consolidated financial statements have been prepared by management in accordance with United States generally accepted accounting principles ("U.S. GAAP") on a basis consistent for all periods presented, except as described in Note 2.

Certain of the comparative figures have been reclassified to conform to the current year's presentation.

The Company operates as a single reportable segment. For additional information concerning the Company's segment reporting, see Note 15.

Accounting Policies and Critical Accounting Estimates

Use of estimates

The preparation of the consolidated financial statements requires management to make estimates and assumptions with respect to the reported amounts of assets, liabilities, revenue and expenses and the disclosure of contingent assets and liabilities. Significant areas requiring the use of management estimates relate to the determination of reserves for various litigation claims, revenue-related estimates including variable consideration, standalone selling price ("SSP"), estimated customer life, non-cash consideration, right of return and customer incentive commitments, fair value of goodwill, long-lived asset impairment, useful lives of capital and intangible assets, fair values of assets acquired and liabilities assumed in business combinations, provision for income taxes, realization of deferred income tax assets and the related components of the valuation allowance, allowance for doubtful accounts, and the fair value of the long-term debt. Actual results could differ from these estimates.

The significant accounting policies used in these U.S. GAAP consolidated financial statements are as follows:

Foreign currency translation

The U.S. dollar is the functional and reporting currency of the Company and substantially all of the Company's subsidiaries.

Foreign currency denominated assets and liabilities of the Company and its U.S. dollar functional currency subsidiaries are translated into U.S. dollars. Accordingly, monetary assets and liabilities are translated using the exchange rates in effect as at the consolidated balance sheet dates, and revenue and expenses are translated at the rates of exchange prevailing when the transactions occurred. Remeasurement adjustments are included in income. Non-monetary assets and liabilities are translated at historical exchange rates.

Foreign currency denominated assets and liabilities of the Company's non-U.S. dollar functional currency subsidiaries are translated into U.S. dollars at the exchange rates in effect as at the consolidated balance sheet dates. Revenue and expenses are translated using monthly average exchange rates. Exchange gains or losses arising from translation of foreign currency denominated assets and liabilities are included as a currency translation adjustment within accumulated other comprehensive income (loss) ("AOCI").

Cash and cash equivalents

Cash and cash equivalents consist of balances with banks and liquid investments with maturities of three months or less at the date of acquisition.

Accounts receivable, net

The accounts receivable balance reflects invoiced and accrued revenue and is presented net of an allowance for doubtful accounts. The allowance for doubtful accounts reflects estimates of probable losses in the accounts receivable balance. The Company expects the majority of its accounts receivable balances to continue to come from large customers as it sells the majority of its software products and services through resellers and network carriers rather than directly.

The Company evaluates the collectability of its accounts receivable balance based upon a combination of factors on a periodic basis such as specific credit risk of its customers, historical trends and economic circumstances. The Company, in the normal course of business, monitors the financial condition of its customers and reviews the credit history of each new customer. When the Company becomes aware of a specific customer's inability to meet its financial obligations to the Company (such as in the case of bankruptcy filings or material deterioration in the customer's operating results or financial position, and payment experiences), the Company records a specific bad debt provision to reduce the customer's related accounts receivable to its estimated net realizable value. If circumstances related to specific customers change, the Company's estimates of the recoverability of accounts receivable balances could be further adjusted.

Investments

The Company's cash equivalents and investments, other than publicly issued equity securities and private equity investments without readily determinable fair value, consist of money market and other debt securities, which are classified as available-for-sale for accounting purposes and are carried at fair value. Unrealized gains and losses, net of related income taxes, are recorded in AOCI until such investments mature or are sold. The Company uses the specific identification method of determining the cost basis in computing realized gains or losses on available-for-sale investments, which are recorded in investment income. In the event of a decline in value that is other-than-temporary, the investment is written down to fair value with a charge to income. The Company does not exercise significant influence with respect to any of these investments. Publicly issued equity securities are recorded at fair value and revalued at each reporting period with changes in fair value recorded through investment income. The Company elects to record private equity investments without readily determinable fair value at cost minus impairment, and adjusted for any changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer. The Company reassesses each reporting period that its private equity investments without readily determinable fair value continue to qualify for this treatment.

Investments with maturities at the time of purchase of three months or less are classified as cash equivalents. Investments with maturities of one year or less (but which are not cash equivalents), equity investments and any investments that the Company intends to hold for less than one year are classified as short-term investments. Investments with maturities in excess of one year are classified as long-term investments.

The Company assesses individual investments that are in an unrealized loss position to determine whether the unrealized loss 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 the Company's intent and ability to hold the investment. In the event that a decline in the fair value of an investment occurs and that decline in value is considered to be other-than-temporary, an impairment charge is recorded in investment income equal to the difference between the cost basis and the fair value of the individual investment as at the consolidated balance sheet date of the reporting period for which the assessment was made. The fair value of the investment then becomes the new cost basis of the investment.

If a debt security's market value is below its amortized cost and either the Company intends to sell the security or it is more likely than not that the Company will be required to sell the security before its anticipated recovery, the Company records an other-than-temporary impairment charge to investment income for the entire amount of the impairment. For other-than-temporary impairments on debt securities that the Company does not intend to sell and it is not more likely than not that the entity will be required to sell the security before its anticipated recovery, the Company would separate the other-than-temporary impairment into the amount representing the credit loss and the amount related to all other factors. The Company would record the other-than-temporary impairment related to the credit loss as a charge to investment income, and the remaining other-than-temporary impairment would be recorded as a component of AOCI.

Derivative financial instruments

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 effective portion of the derivative's gain or loss is initially reported as a component of AOCI, net of tax, and subsequently reclassified into income in the same period or periods in which the hedged item affects income. The ineffective portion of the derivative's gain or loss is recognized in current income. In order for the Company to receive hedge accounting treatment, the cash flow hedge must be highly effective in offsetting changes in the fair 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.

Inventories

Raw materials, work in process and finished goods are stated at the lower of cost and net realizable value. Cost includes the cost of materials plus direct labour applied to the product and the applicable share of manufacturing overhead. Cost is determined on a first-in, first-out basis. Net realizable value is defined as the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion and disposal.

Property, plant and equipment, net

Property, plant and equipment are stated at cost, less accumulated amortization. Amortization is provided using the following rates and methods:

Buildings, leasehold improvements and other	Straight-line over terms between 5 and 40 years
BlackBerry operations and other information technology	Straight-line over terms between 3 and 5 years
Manufacturing, repair and research and development equipment	Straight-line over terms between 1 and 5 years
Furniture and fixtures	Declining balance at 20% per annum

Goodwill

Goodwill represents the excess of the acquisition price over the fair value of identifiable net assets acquired. Goodwill is allocated at the date of the business combination. Goodwill is not amortized, but is tested for impairment annually on December 31 or more frequently if events or changes in circumstances indicate the asset may be impaired. These events and circumstances may include a significant change in legal factors or in the business climate, a significant decline in the Company's share price, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, significant disposal activity and the testing of recoverability for a significant asset group.

The Company did not have any goodwill impairment in fiscal 2019 or fiscal 2018.

As a result of the internal reporting reorganization in fiscal 2017, and the Company's transition to segmented reporting in that fiscal year, the change in reporting unit structure necessitated a goodwill impairment assessment preceding and following the reorganization of reporting units. The impairment test was carried out in two steps. In the first step, the carrying amount of the reporting unit, including goodwill, is compared with its fair value. Following the reorganization, goodwill was assigned to the reporting units based upon the relative fair value allocation approach. The estimated fair value was determined utilizing multiple approaches based on the reporting units valued. In its analysis, the Company utilized multiple valuation techniques, including the income approach, discounted future cash flows, the market-based approach, and the asset value approach. The carrying amount of the Company's assets was assigned to reporting units using reasonable methodologies based on the asset type. When the carrying amount of a reporting unit exceeds its fair value, goodwill of the reporting unit is considered to be impaired and the second step is necessary. Different judgments could yield different results.

The completion of step one of the goodwill impairment test following the internal reporting reorganization provided indications of impairment in certain reporting units, necessitating step two.

In the second step, the implied fair value of the reporting unit's goodwill is compared with its carrying amount to measure the amount of the impairment loss, if any. The second step involves significant judgment in the selection of assumptions necessary to arrive at an implied fair value of goodwill. Different judgments could yield different results.

Using the impaired reporting units' fair value determined in step one as the acquisition prices in hypothetical acquisitions of the reporting units, the implied fair values of goodwill were calculated as the residual amount of the acquisition price after allocations made to the fair values of net assets, including working capital, property, plant and equipment and both recognized and unrecognized intangible assets. Based on the results of step two of the goodwill impairment test in fiscal 2017, it was concluded that the carrying value of goodwill was impaired. Consequently, the Company recorded a goodwill impairment charge of $57 million (the "Goodwill Impairment Charge"), in the first quarter of fiscal 2017. The results of step one of the goodwill impairment test also indicated impairment in the asset groups associated with those reporting units, resulting in the long-lived asset impairment test as discussed below.

Intangible assets

Intangible assets with definite lives are stated at cost, less accumulated amortization. Amortization is provided on a straight-line basis over the following terms:

Acquired technology	Between 3 and 10 years
Intellectual property	Between 1 and 17 years
Other acquired intangibles	Between 2 and 10 years

Acquired technology consists of intangible assets acquired through business acquisitions. Intellectual property consists of patents (both purchased and internally generated) and agreements with third parties for the use of intellectual property. Other acquired intangibles include items such as customer relationships and brand. The useful lives of intangible assets are evaluated at least annually to determine if events or circumstances warrant a revision to their remaining period of amortization. Legal, regulatory and contractual factors, the effects of obsolescence, demand, competition and other economic factors are potential indicators that the useful life of an intangible asset may be revised.

Impairment of long-lived assets

The Company reviews long-lived assets ("LLA") such as property, plant and equipment and intangible assets with finite useful lives for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset or asset group may not be recoverable. These events and circumstances may include significant decreases in the market price of an asset or asset group, significant changes in the extent or manner in which an asset or asset group is being used by the Company or in its physical condition, a significant change in legal factors or in the business climate, a history or forecast of future operating or cash flow losses, significant disposal activity, a significant decline in the Company's share price, a significant decline in revenue or adverse changes in the economic environment.

The LLA impairment requires the Company to identify its asset groups and test impairment of each asset group separately. To conduct the LLA impairment test, the asset group is tested for recoverability using undiscounted cash flows over the remaining useful life of the primary asset. If forecasted net cash flows are less than the carrying amount of the asset group, an impairment charge is measured by comparing the fair value of the asset group to its carrying value. Determining the Company's asset groups and related primary assets requires significant judgment by management. Different judgments could yield different results.

When indicators of impairment exist, LLA impairment is tested using a two-step process. The Company performs a cash flow recoverability test as the first step, which involves comparing the asset group's estimated undiscounted future cash flows to the carrying amount of its net assets. If the net cash flows of the asset group exceed the carrying amount of its net assets, LLA are not considered to be impaired. If the carrying amount exceeds the net cash flows, there is an indication of potential impairment and the second step of the LLA impairment test is performed to measure the impairment amount. The second step involves determining the fair value of the asset group. Fair values are determined using valuation techniques that are in accordance with U.S. GAAP, including the market approach, income approach and cost approach. If the carrying amount of the asset group's net assets exceeds the fair value of the Company, then the excess represents the maximum amount of potential impairment that will be allocated to the asset group, with the limitation that the carrying value of each separable asset cannot be reduced to a value lower than its individual fair value. The total impairment amount allocated is recognized as a non-cash impairment loss.

The Company reviews any changes in events and circumstances that have occurred on a quarterly basis to determine if indicators of LLA impairment exist. The Company had no LLA impairment in fiscal 2019.

In the second quarter of fiscal 2018, the Company performed an LLA impairment analysis on an asset group associated with certain prepaid royalty arrangements associated with the Company's sale of handheld devices, using the procedure described above, which included a cash flow recoverability test. The estimated undiscounted net cash flows of the asset group were determined utilizing the Company's internal forecasts. The Company concluded that the carrying value of the asset group exceeded the undiscounted net cash flows. Consequently, step two of the LLA impairment test was performed whereby the fair values of certain of the Company's assets were compared to their carrying values. As a result of the analysis, the Company recorded a non-cash, pre-tax and after-tax charge against its LLA of approximately $11 million in the second quarter of fiscal 2018.

In the first quarter of fiscal 2017, as a result of step one of the goodwill impairment assessment, the Company performed an LLA impairment analysis on the intellectual property within the asset group associated with the Company's handheld devices business using the procedure described above. As a result of such LLA impairment test, the Company recorded a non-cash, pre-tax and after-tax charge against its LLA of approximately $501 million in the first quarter of fiscal 2017.

Business acquisitions

The Company accounts for its acquisitions using the acquisition method whereby identifiable assets acquired and liabilities assumed are measured at their fair values as of the date of acquisition. The excess of the acquisition price over such fair value, if any, is recorded as goodwill, which is not expected to be deductible for tax purposes. The Company includes the operating results of each acquired business in the consolidated financial statements from the date of acquisition.

Royalties

The Company recognizes its liability for royalties in accordance with the terms of existing license agreements. Where license agreements are not yet finalized, the Company recognizes its current estimates of the obligation in accrued liabilities in the consolidated financial statements. When the license agreements are subsequently finalized, the estimate is revised accordingly. Management's estimates of royalty rates are based on the Company's historical licensing activities, royalty payment experience, and forward-looking expectations.

Convertible debentures

The Company elected to measure its outstanding convertible debentures (collectively, the "Debentures" as defined in Note 10) at fair value in accordance with the fair value option. Each period, the fair value of the Debentures is recalculated and resulting gains and losses from the change in fair value of the Debentures are recognized in income. The fair value of the Debentures has been determined using the significant inputs of principal value, interest rate spreads and curves, embedded call option prices, the market price and volatility of the Company's listed common shares and the Company's implicit credit spread.

Revenue recognition

Accounting Standards Codification 606, Revenue from Contracts with Customers ("ASC 606")

On March 1, 2018, the Company adopted ASC 606 using the modified retrospective method. This method was applied to all contracts in effect at the date of initial application. The Company recognizes revenue, when control of the promised products or services are transferred to customers, in an amount that reflects the consideration that the Company expects to receive in exchange for those products and services. Revenue is recognized through the application of the following steps: (i) identification of the contract, or contracts, with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations in the contract; and (v) recognition of revenue when (or as) the Company satisfies a performance obligation.

A contract exists with a customer when both parties have approved the contract, commitments to performance and rights of each party (including payment terms) are identified, the contract has commercial substance and collection of substantially all consideration is probable for goods and services that are transferred.

Performance obligations promised in a contract are identified based on the goods and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the good or service either on its own or together with other available resources, and are distinct in the context of the contract, whereby the transfer of the good or service is separately identifiable from other promises in the contract. If these criteria are not met, the promised goods and services are accounted for as a combined performance obligation.

The transaction price is determined based on the consideration the Company expects to be entitled to in exchange for transferring promised goods and services to the customer, excluding amounts collected on behalf of third parties such as sales taxes. Determining the transaction price requires significant judgment. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method depending on the nature of the variable consideration. Non-cash consideration received is measured at fair value at contract inception. The estimated fair value is determined utilizing multiple valuation techniques, including the discounted future cash flows and the market-based approach.

Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative SSP. The Company's method for allocation of consideration to be received and its method of estimation of SSP are described below under "Significant judgments".

For each of the Company's major categories of revenue, the following paragraphs describe the applicable specific revenue recognition policy, and when the Company satisfies its performance obligations. See Note 15 for a description of the Company's revenue by product and service type and what each grouping contains.

Nature of products and services

Enterprise software and services

Enterprise software and services include revenue from the Company's security, productivity, collaboration and end-point management solutions through the BlackBerry Secure platform, which includes BlackBerry Unified Endpoint Manager (UEM), BlackBerry Dynamics, BlackBerry Workspaces and BBM Enterprise, among other products and applications, as well as revenue from the sale of the Company's AtHoc Alert secure networked crisis communications solution, its Secusmart SecuSUITE secure voice and text solution, professional services from BlackBerry Cybersecurity Services and BlackBerry Cylance.

The Company generates software license revenue from both term subscription and perpetual license contracts, both of which are often bundled with other products and services including technical support, unspecified updates and upgrades, and access to the Company's proprietary secure network infrastructure.

If the licensed software in a contract requires access to the Company's proprietary secure network infrastructure in order to function, revenue from term subscription contracts is recognized over time, ratably over the term, and revenue from perpetual license contracts is recognized over time, ratably over the expected customer life, which in most cases, the Company has estimated to be four years. If access to the Company's proprietary network infrastructure is not required for the software to function, revenue associated with both term subscription and perpetual licenses contracts is recognized at a point in time upon delivery of the software. Generally, most of the Company's enterprise software products sold require access to the Company's proprietary secure network infrastructure in order to function, and therefore the associated revenue is recognized over time, ratably over either the subscription term or expected customer life as described above.

Revenue from technical support is recognized over the support period.

BlackBerry Technology Solutions

BlackBerry Technology Solutions ("BTS") includes revenue from the Company's QNX CAR Platform and Neutrino Operating System, among other BlackBerry QNX products, as well as revenue from the Company's BlackBerry Radar asset tracking solution, Paratek antenna tuning technology, and Certicom cryptography and key management products. These are often bundled with other products and services including maintenance services and professional services.

Software license revenue from both term subscription and perpetual contracts is recognized at a point in time when the software is made available to the customer for use, as the software has standalone functionality and the license is distinct in the context of the contract. BTS also sells licenses for certain software embedded into hardware such as automotive infotainment systems; these licenses are sold as a sales-based royalty where intellectual property is the predominant item to which the royalty relates, and are recognized based on actual volumes and underlying sales by the customer of the hardware with the embedded software.

Revenue from software maintenance services is recognized over the length of the maintenance period, with an average term of one year.

Revenue from professional services is recognized over the term of the contract, as the customer simultaneously receives and consumes the benefits provided by the Company's performance as the services are provided.

Licensing, IP and other

Licensing, IP and other includes revenue from the Company's mobility licensing software arrangements, including revenue from licensed hardware sales and intellectual property licensing, and from the Company's BBM Consumer licensing arrangement.

In fiscal 2017 and fiscal 2018, the Company entered into multiple license agreements under which the Company licensed its security software and service suite and, in many cases, related brand assets to third parties who design, manufacture, sell and provide customer support for BlackBerry-branded and white-label handsets. Mobility license revenue for licensees whose sales exceed contractual sales minimums is recognized when licensed products are sold as reported by the Company's licensees. For licensees whose sales do not exceed contractual sales minimums, revenue is recognized over time, ratably over the license term based on contractual minimum amounts due to the performance obligation to provide engineering services to the licensees.

The Company's outbound patent licensing agreements provide for license fees that may be a single upfront payment or multiple payments representing all or a majority of the licensing revenue that will be payable to the Company. These agreements may be perpetual or term in nature and grant (i) a limited non-exclusive, non-transferable license to certain of the Company's patents, (ii) a covenant not to enforce patent rights against the licensee, and (iii) the release of the licensee from certain claims.

The Company examines intellectual property agreements on a case-by-case basis to determine whether the intellectual property has standalone functionality. Revenue from patent licensing agreements is often recognized for the transaction price either when the license has been transferred to the customer, or based upon subsequent sales by the customer in the case of sales-based royalty licenses where the license of intellectual property is the predominant item to which the royalty relates.

Handheld devices

Prior to fiscal 2019, handheld devices included revenue from the sale of the DTEK60 and all prior BlackBerry smartphone models to carriers and distributors, accessories and repair services of handheld devices. As the Company has sold all of its inventory of handheld devices, any revenue currently recognized is now solely associated with the release of previously accrued amounts when the Company determines it has no further performance obligations.

SAF

SAF 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.

SAF revenue is recognized over time as the monthly service is provided. In instances where the Company bills the customer prior to performing the service, the pre-billing is recorded as deferred revenue.

See Note 15 for further information, including revenue by major product and service types.

Significant judgments

The Company's contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment.

Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue recognized under the contract will not occur. Any estimates, including any constraints on variable consideration, are evaluated at each reporting period. Judgment is required to determine the fair value of non-cash consideration at contract inception. The Company uses an independent third-party valuator for the fair value of non-cash consideration.

Judgment is required to determine the SSP for each distinct performance obligation. The Company's products and services often have observable SSP when the Company sells a promised product or service separately to similar customers. A contractually stated price or list price for a good or service may be the SSP of that good or service. However, in instances where SSP is not directly observable, the Company determines the SSP by maximizing observable inputs and using an adjusted market assessment approach using information that may include market conditions and other observable inputs from the Company's pricing team, including historical SSP.

Significant judgment is required to determine the estimated customer life used in perpetual license contracts that require access to the Company's proprietary secure network infrastructure to function. The Company uses historical experience regarding the length of the technology upgrade cycle and the expected life of the product to draw this conclusion.

Revenue contract balances

Timing of revenue recognition may differ from the timing of invoicing to customers. Contract assets are generated when contractual billing schedules differ from revenue recognition timing. A receivable is recorded in instances when revenue is recognized prior to invoicing, and amounts collected in advance of services being provided are recorded as deferred revenue.

Certain sales commissions are considered incremental and recoverable costs of obtaining a contract with a customer. The Company's capitalized commissions are recorded as other current assets and other long-term assets and are amortized proportionally based on the satisfaction of the related performance obligations, and are included in selling, marketing and administration expenses. See Note 15 for further information on the Company's contract balances.

Payment terms and conditions vary by contract type, although standard billing terms are that payment is due upon receipt of invoice, payable within 30 to 60 days. In instances where the timing of revenue recognition differs from the timing of invoicing, the Company has determined that contracts generally do not include a significant financing component if the period between when the payment is received and when the Company transfers the promised goods or services to the customer will be one year or less.

Income taxes

The Company uses the liability method of income tax allocation to account for income taxes. Deferred income tax assets and liabilities are recognized based upon temporary differences between the financial reporting and income tax bases of assets and liabilities, and measured using enacted income tax rates and tax laws that will be in effect when the differences are expected to reverse. The Company records a valuation allowance to reduce deferred income tax assets to the amount that is more likely than not to be realized. The Company considers both positive evidence and negative evidence, to determine whether, based upon the weight of that evidence, a valuation allowance is required. Judgment is required in considering the relative impact of negative and positive evidence.

Significant judgment is also required in evaluating the Company's uncertain income tax positions and provisions for income taxes. Liabilities for uncertain income tax positions are recognized based on a two-step approach. The first step is to evaluate whether an income tax position has met the recognition threshold by determining if the weight of available evidence indicates that it is more likely than not to be sustained upon examination. The second step is to measure the income tax position that has met the recognition threshold as the largest amount that is more than 50% likely of being realized upon settlement. The Company continually assesses the likelihood and amount of potential adjustments and adjusts the income tax provisions, income taxes payable and deferred income taxes in the period in which the facts that give rise to a revision become known. The Company recognizes interest and penalties related to uncertain income tax positions as interest expense, which is then netted and reported within investment income.

The Company uses the flow-through method to account for investment tax credits ("ITCs") earned on eligible scientific research and experimental development expenditures. Under this method, the ITCs are recognized as a reduction to income tax expense.

Research and development

Research costs are expensed as incurred. Development costs for licensed software to be sold, leased or otherwise marketed are subject to capitalization beginning when a product's technological feasibility has been established and ending when a product is available for general release to customers. The Company's products are generally released soon after technological feasibility has been established and therefore costs incurred subsequent to achievement of technological feasibility are not significant and have been expensed as incurred. The Company does not currently have any capitalized research and development costs.

Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in net assets of a business enterprise during a period from transactions and other events and circumstances from non-owner sources and includes all changes in equity during a period, except those resulting from investments by owners and distributions to owners. The Company's reportable items of comprehensive income (loss) are the cumulative translation adjustment resulting from non-U.S. dollar functional currency subsidiaries as described under the foreign currency translation policy above, cash flow hedges as described in Note 5, changes in the fair value of available-for-sale investments as described in Notes 3 and 4, changes in fair value from instruments-specific credit risk on Debentures as described in Note 10 and 13, and actuarial gains or losses associated with certain other post-employment benefit obligations. Realized gains or losses on available-for-sale investments are reclassified into investment income using the specific identification basis.

Earnings (loss) per share

Earnings (loss) per share is calculated based on the weighted average number of common shares outstanding during the fiscal year. The treasury stock method is used for the calculation of the dilutive effect of stock options. The if-converted method is used for the calculation of the dilutive effect of the Debentures.

Stock-based compensation plans

The Company has stock-based compensation plans. Awards granted under the plans are detailed in Note 11(b).

The Equity Incentive Plan (the "Equity Plan") was adopted during fiscal 2014. The Equity Plan provides for the grants of incentive stock options and restricted share units ("RSUs") to officers and employees of the Company or its subsidiaries. The number of common shares authorized for awards under the Equity Plan is 33,875,000 common shares. Any shares that are subject to options granted under the Equity Plan are counted against this limit as 0.625 shares for every one option granted, and any shares that are subject to RSUs granted under the Equity Plan are counted against this limit as one share for every RSU. Awards previously granted under the Equity Plan that expire or are forfeited, or settled in cash, are added to the shares available under the Equity Plan. Options forfeited will be counted as 0.625 shares to the shares available under the Equity Plan. Shares issued as awards other than options (i.e., RSUs) that expire or are forfeited, settled in cash or sold to cover withholding tax requirements are counted as one share added to the shares available under the Equity Plan.

In connection with the Cylance (as defined in Note 7) acquisition, the Company adopted the BlackBerry-Cylance Stock Plan (the "Cylance Stock Plan"). The Cylance Stock Plan provides for the grant of Replacement Awards (as defined in Note 11(b)) in connection with unvested Cylance employee equity awards. The number of common shares authorized for awards under the Cylance Stock Plan is 9,144,176 common shares, which is equal to the amount of Replacement Awards granted. As at February 28, 2019, there are no shares remaining in the Cylance Stock Plan for future grants. In addition, no shares may be reissued under the Cylance Stock Plan in respect of shares that expire or are forfeited, or settled in cash.

The Company measures stock-based compensation expense for options at the grant date based on the award's fair value as calculated by the Black-Scholes-Merton ("BSM") option pricing model for stock options, and the expense is recognized ratably over the vesting period. Options generally vest over a four year period with 25% vesting on the first anniversary date, and the remainder vesting in equal monthly installments. The BSM model requires various judgmental assumptions including volatility and expected option life. In addition, judgment is also applied in estimating the number of stock-based awards that are expected to be forfeited, and if actual results differ significantly from these estimates, stock-based compensation expense and the Company's results of operations would be impacted.

Any consideration paid by employees on exercise of stock options, plus any recorded stock-based compensation within additional paid-in capital related to that stock option, is credited to capital stock.

RSUs are redeemed for common shares issued by the Company or the cash equivalent on the vesting dates established by the Board or the Compensation, Nomination and Governance Committee of the Board. The RSUs generally vest over a three-year period, either in equal annual installments or on the third anniversary date. For RSUs granted on performance, the Company estimates its achievement against the performance goals, which are based on the Company's business plan approved by the Board. The estimated achievement is updated for the Company's outlook for the fiscal year as at the end of each fiscal quarter. Compensation cost will only be recognized to the extent that performance goals are achieved. The Company classifies RSUs as equity instruments as the Company has the ability and intent to settle the awards in common shares. The compensation expense for standard RSUs is calculated based on the fair value of each RSU as determined by the closing value of the Company's common shares on the business day of the grant date. The Company recognizes compensation expense over the vesting period of the RSU.

The Company expects to settle RSUs, upon vesting, through the issuance of new common shares from treasury.

The Company has a Deferred Share Unit Plan (the "DSU Plan"), originally approved by the Board on December 20, 2007, under which each independent director is credited with Deferred Share Units ("DSUs") in satisfaction of all or a portion of the cash fees otherwise payable to them for serving as a director of the Company. Each independent director's annual retainer will be entirely satisfied in the form of DSUs. Within a specified period after a director ceases to be a member of the Board, DSUs will be redeemed for cash with the redemption value of each DSU equal to the weighted average trading price of the Company's shares over the five trading days preceding the redemption date. Alternatively, the Company may elect to redeem DSUs by way of shares purchased on the open market or issued by the Company.

DSUs are accounted for as liability-classified awards and are awarded on a quarterly basis. These awards are measured at their fair value on the date of issuance and remeasured at each reporting period until settlement.

Advertising costs

The Company expenses all advertising costs as incurred. These costs are included in selling, marketing and administration expenses.

2. ADOPTION OF ACCOUNTING POLICIES

Accounting Standards Adopted During Fiscal 2019

ASC 606, Revenue from Contracts with Customers

In May 2014, the Financial Accounting Standards Board (the "FASB") issued ASC 606, a new accounting standard on the topic of revenue contracts, which replaced the prior revenue recognition standard. The new standard amended a number of requirements that an entity must consider in recognizing revenue and requires improved disclosures to help readers of financial statements better understand the nature, amount, timing and uncertainty of revenue recognized. For public entities, the new standard was effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period.

The most significant impact of adopting the new standard relates to timing of revenue recognized on software licenses in Enterprise software and services contracts. Prior to the adoption of ASC 606, where vendor-specific objective evidence could not be determined, the Company recognized term licensed software ratably over the longest contract deliverable, with certain perpetual contracts recognized upon delivery. Under the new standard, on the software licensing component of enterprise software offerings, the Company recognizes revenue over the subscription term for term subscription contracts, and over the expected customer life for perpetual license contracts which, in most cases, is estimated to be four years. Given this, the adoption of ASC 606 has resulted in Enterprise software and services revenue previously recognized for certain perpetual licenses being reversed as a cumulative adjustment from deficit to deferred revenue to be recognized ratably over the remaining period of performance. Professional services revenue that otherwise would have been recognized over time have now been recognized at adoption as a cumulative adjustment to deficit, and such revenue will be recognized when the performance obligation has been fulfilled. There were no significant changes to any of the Company's other revenue streams, and there was no tax impact for the fiscal year ended February 28, 2019 due to the Company's valuation allowance.

ASC 606 requires the capitalization of all the incremental costs to acquire a contract, and for these costs to be amortized into income proportionate to the recognition of the associated revenue. The Company previously capitalized and deferred a portion of its incremental costs to acquire a contract and amortized that cost into income ratably over the term of the contract. As a result, the adoption of ASC 606 resulted in certain costs incurred in acquiring a contract previously expensed being reversed through a cumulative adjustment from deficit to other current assets, and recognized over time on a systematic basis consistent with the transfer of the products or services to which the asset relates.

On March 1, 2018, the Company adopted ASC 606 and all related amendments using the modified retrospective method. The Company recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of deficit. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. In adopting the guidance, the Company applied the guidance to all contracts and used multiple practical expedients, including the assessment of contracts with similar terms and conditions on a portfolio basis, and has made no adjustment to the promised amount of consideration for the effects of a significant financing component.

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

The cumulative effect of the changes made to the Company's March 1, 2018 consolidated statement of financial position for the adoption of ASC 606 was as follows:

Consolidated Balance Sheets	Balance as at February 28, 2018	ASC 606 Adjustments	Balance as at March 1, 2018
Assets			
Other assets	$ 66	$ 11	$ 77
Liabilities			
Deferred revenue	$ 195	$ 97	$ 292
Shareholders' equity			
Deficit	$ (45)	$ (86)	$ (131)

The impact of the adoption of ASC 606 on the Company's condensed financial statements during the fiscal year ended February 28, 2019 was as follows:

	As at February 28, 2019		
Consolidated Balance Sheets	Balances Without Adoption of ASC 606	ASC 606 Adjustments	As Reported
Assets			
Other assets	$ 67	$ 17	$ 84
Liabilities			
Deferred revenue	$ 310	$ 40	$ 350
Shareholders' equity			
Deficit	$ (9)	$ (23)	$ (32)

	For the Year Ended February 28, 2019		
Consolidated Statements of Operations	Balances Without Adoption of ASC 606	ASC 606 Adjustments	As Reported
Revenue	$ 864	$ 40	$ 904
Operating expenses			
Selling, marketing and administration	$ 410	$ (4)	$ 406
Net income	$ 49	$ 44	$ 93
Earnings (loss) per share			
Basic	$ 0.09	$ 0.08	$ 0.17
Diluted	$ (0.07)	$ 0.07	$ 0.00

Other Accounting Standards Updates ("ASU")

In January 2016, the FASB issued ASU 2016-01 on the topic of financial instruments. The amendments in this update address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The standard primarily affects the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. In addition, the guidance clarifies that an entity should evaluate the need for a valuation allowance on a deferred income tax asset related to available-for-sale securities. The guidance is effective for interim and annual periods beginning after December 15, 2017. The Company adopted this guidance in the first quarter of fiscal 2019. As a result of the adoption of ASU 2016-01, the Company recognized approximately $8 million in unrecognized losses on equity securities that had previously been recorded to other comprehensive income (loss), through a cumulative addition to deficit in the consolidated balance sheet as of March 1, 2018. The Company recognized approximately $14 million on the change in fair value from instrument-specific credit risk that had previously been recorded to deficit through a cumulative increase to AOCI in the consolidated balance sheet as of March 1, 2018. The Company will also account for equity investments without a readily determinable fair value using the practicability exception. The investments will be measured at cost, less any impairment, plus or minus any changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer.

In November 2016, the FASB issued ASU 2016-18 on the topic of the statement of cash flows. The amendments in this update require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. The amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. This guidance is effective for interim and annual periods beginning after December 15, 2017. The Company adopted this guidance in the first quarter of fiscal 2019.

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued a new accounting standard on the topic of leases. The new 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 will result in the lessee recognizing a right-of-use ("ROU") asset and a corresponding lease liability. 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. Early adoption is permitted. The Company is in the process of determining the impact, and expects that, in the first quarter of fiscal 2020 when the standard becomes effective for the Company, there likely will be a material impact to its balance sheet consisting of the recognition of a ROU asset and a corresponding lease liability. The Company established a cross-functional coordinated team to conduct the implementation of the lease standard, which was responsible for identifying and implementing the appropriate changes to the Company's relevant business processes, systems and controls to support the required accounting and disclosure changes.

In August 2017, the FASB issued a new accounting standard on the topic of derivatives and hedging. The amendments in this update expand and refine the designation and measurement guidance for qualifying hedging relationships and the presentation of those hedge results. The guidance is effective for interim and annual periods beginning after December 15, 2018. The Company will adopt this guidance in the first quarter of fiscal 2020 and does not expect the impact to have a material effect on its results of operations, financial position and disclosures.

3. CASH, CASH EQUIVALENTS AND INVESTMENTS

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.

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

- 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.

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
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	—
	20	2	—	(3)	19	—	—	19	—
	$ 1,016	$ 2	$ (10)	$ (3)	$ 1,005	$ 548	$ 368	$ 55	$ 34

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

The components of cash, cash equivalents and investments by fair value level as at February 28, 2018 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	$ 169	$ —	$ —	$ —	$ 169	$ 169	$ —	$ —	$ —
Other investments	35	—	—	—	35	—	—	35	—
	204	—	—	—	204	169	—	35	—
Level 1:									
Equity securities	10	—	(8)	—	2	—	2	—	—
Level 2:									
Term deposits, certificates of deposits, and GICs	332	—	—	—	332	—	293	—	39
Bankers' acceptances	211	—	—	—	211	211	—	—	—
Commercial paper	426	—	—	—	426	231	195	—	—
Non-U.S. promissory notes	227	—	—	—	227	102	125	—	—
Non-U.S. government sponsored enterprise notes	200	—	—	—	200	15	185	—	—
Non-U.S. treasury bills/notes	284	—	—	—	284	50	234	—	—
U.S. treasury bills/ notes	448	—	(1)	—	447	38	409	—	—
	2,128	—	(1)	—	2,127	647	1,441	—	39
Level 3:									
Corporate notes/bonds	1	—	—	—	1	—	—	1	—
Auction rate securities	20	2	—	(3)	19	—	—	19	—
	21	2	—	(3)	20	—	—	20	—
	$ 2,363	$ 2	$ (9)	$ (3)	$ 2,353	$ 816	$ 1,443	$ 55	$ 39

As at February 28, 2019, the Company had equity investments without readily determinable fair value of $36 million (February 28, 2018 - $35 million). During the year ended February 28, 2019, there were no other-than-temporary impairment charges (other-than-temporary impairment charges of nil and $8 million relating to certain equity investments without readily determinable fair value for the years ended February 28, 2018 and February 28, 2017, respectively) and realized gains of nil relating to the sale of equity investments without readily determinable fair value (realized gains of nil and $12 million for the years ended February 28, 2018 and February 28, 2017, respectively).

There were no realized gains or losses on available-for-sale securities for the year ended February 28, 2019 (realized losses of $1 million and nil for the years ended February 28, 2018 and February 28, 2017, respectively).

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 support certain leasing arrangements entered into in the ordinary course of business, for terms ranging from one month to nine years. The Company is legally 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.

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

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

	Cost Basis	Fair Value
Due in one year or less	$ 624	$ 624
Due after five years	17	19
No fixed maturity	10	—
	$ 651	$ 643

As at February 28, 2019, the Company had investments with continuous unrealized losses totaling $10 million, consisting of unrealized losses on equity securities (February 28, 2018 - continuous unrealized losses totaling $9 million).

As a result of the adoption of ASU 2016-01, the Company now records changes in fair value of equity securities through investment income, and has reclassified $8 million in unrealized losses on equity securities through a cumulative adjustment to deficit on March 1, 2018. For a full description of how the Company assesses its investments for other than-temporary impairment, see the description of accounting policies and critical accounting estimates under "Investments" in Note 1. For a description of the impact upon the adoption of ASU 2016-01 on the unrealized losses on equity securities, see Note 2.

4. FAIR VALUE MEASUREMENTS

For a description of the fair value hierarchy, see Note 3.

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. Pricing inputs used by the independent third-party valuator are generally received from one primary vendor. The pricing inputs are reviewed for completeness and accuracy, within a set tolerance level, on a daily basis by the independent third-party valuator. The Company also reviews and understands 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 the 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 U.S. 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, the fair value of the Debentures (as defined in Note 10), the fair value of the long-term intellectual property licensing receivable, the fair value of the long-term RAP (as defined in Note 8) liability and the fair value of certain stock-based compensation awards have been determined, see the "Derivative financial instruments" and "Convertible debentures" accounting policies in Note 1, and Note 6, Note 8 and Note 11.

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

The following table summarizes the changes in fair value of the Company's Level 3 assets for the years ended February 28, 2019 and February 28, 2018:

	Level 3
Balance at February 28, 2017	$ 20
Principal repayments	—
Balance at February 28, 2018	20
Principal repayments	(1)
Balance at February 28, 2019	$ 19

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 significant transfers in or out of Level 3 assets during the years ended February 28, 2019 or February 28, 2018.

The Company's Level 3 assets measured on a recurring basis include auction rate securities as well as corporate notes/bonds consisting of securities received in a payment-in-kind distribution from a former structured investment vehicle.

The auction rate securities are valued using a discounted cash flow method incorporating both observable and unobservable inputs. The unobservable inputs utilized in the valuation are the estimated weighted average life of each security based on its contractual details and expected pay down schedule based upon the underlying collateral, the value of the underlying collateral that would be realized in the event of a waterfall event, an estimate of the likelihood of a waterfall event, an estimate of the likelihood of a permanent auction suspension, and an estimate of the likelihood of the securities being called at par. Significant changes in these unobservable inputs would result in significantly different fair value measurements. Generally, a change in the assumption used for the probability of a waterfall event is accompanied by a directionally opposite change in the assumption used for the probability of a permanent auction suspension. A waterfall event occurs if the funded reserves of the securities become insufficient to make the interest payments, resulting in the disbursement of the securities' underlying collateral to the security holders.

5. DERIVATIVE FINANCIAL INSTRUMENTS

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

	Derivative Assets [1][2]		Derivative Liabilities [1][3]	
	As at February 28, 2019	As at February 28, 2018	As at February 28, 2019	As at February 28, 2018
Foreign exchange contracts				
Fair value of derivatives designated as cash flow hedges	$ 1	$ —	$ (1)	$ (1)
Fair value of derivatives not subject to hedge accounting	—	1	—	(1)
Total estimated fair value	1	1	(1)	(2)
Notional amount	$ 93	$ 123	$ 91	$ 161

[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

The Company's currency risk management objective in holding derivative instruments is to reduce the volatility of current and future income as a result of changes in foreign currency exchange rates. To limit its exposure to adverse movements in foreign currency exchange rates, the Company enters into foreign currency forward and option contracts.

The majority of the Company's revenue for the fiscal year ended February 28, 2019 was transacted in U.S. dollars. However, portions of the revenue are denominated in Canadian dollars, euros, and British pounds. Expenses, consisting of the majority of salaries and other certain operating costs, are incurred primarily in Canadian dollars. The Company enters into forward and option contracts to hedge portions of these anticipated transactions to reduce the volatility on income associated with the foreign currency exposures. The Company also enters into forward and option contracts to reduce the effects of foreign exchange gains and losses resulting from the revaluation of certain foreign currency monetary assets and liabilities. As at February 28, 2019, approximately 9% of cash and cash equivalents, 29% of accounts receivable and 4% of accounts payable and accrued liabilities were denominated in foreign currencies (February 28, 2018 - 9%, 35% and 6%, respectively).

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

See "Derivative financial instruments" in Note 1 for the Company's accounting policies on these instruments.

As at February 28, 2019 and February 28, 2018, the outstanding derivatives designated as cash flow hedges were considered to be fully effective. The maturity dates of these instruments range from March 2019 to November 2019. As at February 28, 2019, the net unrealized loss on these forward and option contracts (including option premiums paid) was nil (February 28, 2018 - net unrealized loss of $1 million). 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 February 28, 2019, the Company estimates that the net unrealized losses including option premiums on forward and option contracts that will be reclassified into income within the next 12 months will be approximately nil. For the fiscal years ended February 28, 2019 and February 28, 2018, there were no realized gains or losses on forward contracts that were ineffective upon maturity.

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 year ended February 28, 2019 and February 28, 2018:

	Amount of Gain (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 Gain (Loss) Reclassified from AOCI into Income (Effective Portion)	
	For the Years Ended			For the Years Ended	
	February 28, 2019	February 28, 2018		February 28, 2019	February 28, 2018
Foreign exchange contracts	$ —	$ (1)	Selling, marketing and administration	$ (3)	$ 2
Total	$ —	$ (1)		$ (3)	$ 2

As part of its currency risk management strategy, the Company may maintain net monetary asset and/or liability balances in foreign currencies. The Company enters into foreign exchange forward contracts to 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 each period, offsetting the change in the U.S. dollar value of the asset or liability. The maturity dates of these instruments range from March 2019 to April 2019. As at February 28, 2019, there were no net unrealized gains (net of premium paid) recorded in respect of these instruments (February 28, 2018 - net unrealized gains or losses of 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 years ended February 28, 2019 and February 28, 2018:

		Amount of Gain (Loss) in Income on Derivative Instruments	
		For the Years Ended	
	Location of Gain (Loss) Recognized in Income on Derivative Instruments	February 28, 2019	February 28, 2018
Foreign exchange contracts	Selling, marketing and administration	$ 4	$ (9)

For information concerning the impact of foreign exchange on the consolidated statements of operations net of the above derivative instruments, see Note 16.

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 February 28, 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 58% (February 28, 2018 - nil; February 28, 2017 - 100%). As at February 28, 2019, the Company had a credit risk exposure across all counterparties with outstanding or unsettled foreign exchange derivative instruments of nil on a notional value of $184 million (February 28, 2018 - no credit risk exposure on a notional value of nil).

The Company maintains Credit Support Annexes ("CSAs") with several of its counterparties. These CSAs require the outstanding net position of all contracts be made whole by the paying or receiving of collateral to or from the counterparties on a daily basis, subject to exposure and transfer thresholds. As at February 28, 2019, the Company had nil in collateral posted with counterparties (February 28, 2018 - $1 million collateral posted or held).

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 February 28, 2019, no single issuer represented more than 16% of the total cash, cash equivalents and investments (February 28, 2018 - no single issuer represented more than 19% of the total cash, cash equivalents and investments), representing cash balances at one of the Company's banking partners.

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 3.75% Debentures (as defined below) as described in Note 10 with a fixed 3.75% interest rate. The fair value of the 3.75% 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 3.75% Debentures. The Company does not currently utilize interest rate derivative instruments to hedge its investment portfolio.

6. CONSOLIDATED BALANCE SHEET DETAILS

Accounts receivable, net

The allowance for doubtful accounts as at February 28, 2019 was $25 million (February 28, 2018 - $24 million).

There was one customer that comprised more than 10% of accounts receivable as at February 28, 2019 (February 28, 2018 - no customer that comprised more than 10%).

Other current assets

Other current assets include items such as inventory, deferred contract acquisition costs, and prepaid expenses, among other items, none of which were greater than 5% of the current assets balance in all years presented.

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

Property, plant and equipment, net

Property, plant and equipment comprised the following:

	As at	
	February 28, 2019	February 28, 2018
Cost		
Buildings, leasehold improvements and other	$ 68	$ 60
BlackBerry operations and other information technology	85	71
Manufacturing, repair and research and development equipment	73	73
Furniture and fixtures	14	9
	240	213
Accumulated amortization	155	149
Net book value	$ 85	$ 64

For the year ended February 28, 2019, amortization expense related to property, plant and equipment amounted to $20 million (February 28, 2018 - $36 million; February 28, 2017 - $76 million).

Sale, disposal and abandonment of LLA - Property, plant and equipment, net

There were no losses associated with the sale, disposal and abandonment of property, plant and equipment during the year ended February 28, 2019 (February 28, 2018 - $3 million in losses).

As part of the Company's resource alignment program (the "RAP"), as described in Note 8, the Company sold or disposed of a significant amount of property, plant and equipment. The Company incurred losses on the write-down of property, plant and equipment to fair value (as assets held for sale), the sale thereof, or disposal thereof of $171 million for the year ended February 28, 2017.

Intangible assets, net

Intangible assets comprised the following:

	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
	$ 1,980	$ 912	$ 1,068

	As at February 28, 2018		
	Cost	Accumulated Amortization	Net Book Value
Acquired technology	$ 682	$ 512	$ 170
Intellectual property	411	212	199
Other acquired intangibles	197	89	108
	$ 1,290	$ 813	$ 477

Other acquired intangibles include items such as customer relationships and brand.

For the year ended February 28, 2019, amortization expense related to intangible assets amounted to $129 million (February 28, 2018 - $141 million; February 28, 2017 - $163 million).

Total additions to intangible assets in fiscal 2019 amounted to $725 million (fiscal 2018 - $30 million). During fiscal 2019, the additions to intangible assets primarily consisted of $646 million in connection with the Cylance acquisition, patents received as non-cash consideration in a contract with a customer and payments for intellectual property relating to patent registration, licenses and maintenance fees.

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

Based on the carrying value of the identified intangible assets as at February 28, 2019, and assuming no subsequent impairment of the underlying assets, the annual amortization expense for each of the succeeding years is expected to be as follows: fiscal 2020 - $196 million; fiscal 2021 - $172 million; fiscal 2022 - $148 million; fiscal 2023 - $132 million; and fiscal 2024 - $127 million.

The weighted average remaining useful lives of the intangible assets are as follows:

	As at	
	February 28, 2019	February 28, 2018
Acquired technology	5.5 years	3.2 years
Intellectual property	7.3 years	7.0 years
Other acquired intangibles	5.8 years	4.4 years

Impairment of LLA

There were no LLA impairment charges taken in fiscal 2019.

As discussed in Note 1, during fiscal 2018 the Company recorded an LLA Impairment Charge of $11 million, which was applicable to certain prepaid royalty arrangements associated with the Company's sale of handheld devices.

During fiscal 2017, the Company recorded the Fiscal 2017 LLA Impairment Charge of $501 million associated with intellectual property within the asset group associated with the Company's handheld devices business.

Sale, disposal and abandonment of LLA - Intangible assets, net

The Company conducts regular reviews of the individual patents, both organically generated and acquired, composing its patent portfolio. As a result of this review, for the year ended February 28, 2019, the Company ceased enforcement and abandoned legal right and title to patents with a cost of $20 million, accumulated amortization of $19 million, and a net book value of approximately $1 million (February 28, 2018 - $16 million, $10 million, and $6 million, respectively; February 28, 2017 - $62 million, $55 million and $7 million, respectively).

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

Goodwill

Changes to the carrying amount of goodwill during the fiscal years ended February 28, 2019, February 28, 2018 and February 28, 2017 were as follows:

	Carrying Amount
Carrying amount as at February 29, 2016	$ 618
Goodwill Impairment Charge	(57)
Effect of foreign exchange on non-U.S. dollar denominated goodwill	(2)
Carrying amount as at February 28, 2017	559
Effect of foreign exchange on non-U.S. dollar denominated goodwill	10
Carrying amount as at February 28, 2018	569
Effect of foreign exchange on non-U.S. dollar denominated goodwill	(5)
Goodwill acquired through business combination completed during the year	899
Carrying amount as at February 28, 2019	$ 1,463

As discussed in Note 1, the Company recorded the Goodwill Impairment Charge of $57 million during fiscal 2017.

Other long-term assets

The Company's long-term assets comprised the following:

	As at	
	February 28, 2019	February 28, 2018
Long-term intellectual property licensing receivable	$ 19	$ 25
Deferred contract acquisition costs, non-current	9	3
	$ 28	$ 28

The Company has a long-term intellectual property licensing receivable comprising a series of future amounts owing from a single licensee. As the amounts of the receivable are long-term in nature, the Company initially measured the payments at present value using an effective interest rate of 4.5%, and will record interest income over time to arrive at the total face value of the remaining payments of $20 million.

Accrued liabilities

Accrued liabilities comprised the following:

	As at	
	February 28, 2019	February 28, 2018
Variable incentive accrual	$ 36	$ 40
Other	156	165
	$ 192	$ 205

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

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

Other long-term liabilities

Other long-term liabilities comprised the following:

	As at	
	February 28, 2019	February 28, 2018
Lease incentive obligations	$ 8	$ —
RAP [1]	11	23
	$ 19	$ 23

[1] The present value of accrued future lease payments associated with the Company's RAP as described in Note 8.

7. 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. Its embeddable AI technology is expected to accelerate the development of the BlackBerry Spark platform, which the Company announced in 2018.

Due to the proximity of the acquisition to the Company's fiscal year-end, accounting for the acquisition of Cylance is still ongoing. The information presented below, with the exception of cash acquired, is preliminary and provisional, as the Company is still completing its measurement of: (i) the fair value of identifiable assets acquired, (ii) consideration transferred for the acquiree, which is subject to a potential purchase price adjustment based upon the final calculation of working capital, and (iii) as a result of the preceding items its measurement of goodwill recognized.

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

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

Non-cash assets acquired	
Current assets	$ 40
Property, plant and equipment and other long-term assets	25
Intangible assets	
Acquired technology	283
In-process research and development	66
Customer relationships	277
Trade name	20
Goodwill[(1)]	899
	1,610
Liabilities assumed	
Current liabilities	27
Debt	125
Deferred revenue[(2)]	95
Deferred tax liability	22
Other long-term liabilities	8
	277
Net non-cash assets acquired	1,333
Cash acquired	10
Restricted cash acquired	4
Net assets acquired	1,347
Settlement of acquiree debt[(3)]	125
	$ 1,472

Consideration	
Cash consideration	$ 1,416
Replacement Awards issued[(4)]	21
Exchange shares [(5)]	35
Total consideration	$ 1,472

(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 Replacement Awards (as defined in Note 11(b)) issued in connection with unvested Cylance employee equity awards, related to pre-combination service and considered purchase consideration. See Note 11(b) 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 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.

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

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[(1)]	Loss before income taxes
Actuals from acquisition date to February 28, 2019	$ 2	$ (5)

(1) Includes revenue recognized related to deferred revenue, the fair value of which represents the costs to service the assumed obligations, plus a normal margin, as required under purchase accounting.

The Company has not disclosed supplemental pro forma information as the accounting for the acquisition is provisional and it is still determining the nature and amount of potential non-recurring pro forma adjustments directly attributable to the business combination.

There were no business acquisitions during fiscal 2018.

8. RESTRUCTURING AND INTEGRATION

Resource Alignment Program

During fiscal 2016, the Company commenced the RAP for its device software, hardware and applications business with the objectives of reallocating Company resources to capitalize on growth opportunities, providing the operational ability to better leverage contract research and development services relating to its handheld devices, and reaching sustainable profitability. Other charges and cash costs may occur as programs are implemented or changes are completed.

The following table sets forth the activity in the Company's RAP liability for fiscal 2019 and fiscal 2018:

	Employee Termination Benefits	Facilities Costs	Other Charges[(1)]	Total
Balance as at February 28, 2017	$ 9	$ 27	$ —	$ 36
Charges incurred	12	26	29	67
Cash payments made	(20)	(14)	(27)	(61)
Balance as at February 28, 2018	1	39	2	42
Charges incurred	8	3	—	11
Cash payments made	(8)	(20)	(2)	(30)
Balance as at February 28, 2019	$ 1	$ 22	$ —	$ 23
Current portion	$ 1	$ 11	$ —	$ 12
Long-term portion	—	11	—	11
	$ 1	$ 22	$ —	$ 23

(1) Other charges consist of costs associated with redundant systems from acquisitions that are being integrated into a single solution, and the effect of foreign exchange.

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

The long-term portion of the RAP liability is recorded at fair value, determined by measuring the remaining payments at present value using an effective interest rate of 2.0%, and the Company recorded interest expense over time to arrive at the total face value of the remaining payments.

The RAP charges included employee termination benefits, facilities and manufacturing network simplification costs as well as integration costs related to the transition and alignment of facilities and systems to the Company's focus on its enterprise software business. Total charges, including non-cash charges incurred in fiscal 2019 and fiscal 2018, were as follows:

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Cost of sales	$ 2	$ 11	$ 25
Research and development	2	5	4
Selling, marketing and administration	8	62	235
Total RAP charges	$ 12	$ 78	$ 264

As discussed in Note 6, the Company completes reviews of the individual patents, both organically generated and acquired, comprising its patent portfolio. As a result of this review, the Company ceased enforcement and abandoned legal right and title to a number of patents. As part of the RAP, the Company classified certain of the charges associated with the selective abandonment of certain patents as restructuring activities, incurring a charge of nil for fiscal 2019 (fiscal 2018 - $4 million and fiscal 2017 - $4 million). The abandonment charges are included in the loss on sale, disposal and abandonment of long-lived assets line of the Company's consolidated statements of operations.

As part of the RAP, the Company decided to sell its data center assets to drive cost savings and efficiencies in the Company. The Company realized a loss on sale of approximately $165 million in fiscal 2017 in relation to the sale of these assets. The loss on sale has been included in the loss on sale, disposal and abandonment of long-lived assets line of the Company's consolidated statements of operations and included in the total RAP charges.

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

9. INCOME TAXES

The difference between the amount of the provision for (recovery of) income taxes and the amount computed by multiplying net income before income taxes by the statutory Canadian tax rate is reconciled as follows:

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Statutory Canadian tax rate	26.5%	26.5%	26.6%
Expected provision for (recovery of) income taxes	$ 20	$ 108	$ (320)
Differences in income taxes resulting from:			
Valuation allowance	(55)	(169)	302
Investment tax credits	(10)	(3)	(20)
Canadian tax rate differences		—	1
Change in unrecognized income tax benefits	9	8	28
Foreign tax rate differences	(1)	(6)	6
Effect of adjustments to deferred tax amounts for enacted changes resulting from U.S. tax reform	—	67	—
Non-deductible permanent differences	19	4	3
Other differences	2	(9)	(2)
Withholding tax on unremitted earnings	—	1	—
	$ (16)	$ 1	$ (2)

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Income (loss) before income taxes:			
Canadian	$ 63	$ 413	$ (1,301)
Foreign	14	(7)	93
	$ 77	$ 406	$ (1,208)

The provision for (recovery of) income taxes consists of the following:

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Current			
Canadian	$ 2	$ 1	$ (3)
Foreign	7	7	(33)
Deferred			
Canadian	—	—	—
Foreign	(25)	(7)	34
	$ (16)	$ 1	$ (2)

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

Deferred income tax assets and liabilities consist of the following temporary differences:

	As at	
	February 28, 2019	February 28, 2018
Assets		
Property, plant, equipment and intangibles	$ 175	$ 190
Non-deductible reserves	89	48
Minimum taxes	264	265
Convertible Debentures (see Note 10)	15	47
Research and development	304	286
Tax loss carryforwards	414	307
Other	98	94
Deferred income tax assets	1,359	1,237
Valuation allowance	1,192	1,221
Deferred income tax assets net of valuation allowance	167	16
Liabilities		
Property, plant, equipment and intangibles	(167)	(19)
Deferred income tax liabilities	(167)	(19)
Net deferred income tax asset (liability)	$ —	$ (3)
Deferred income tax asset	$ 2	$ 3
Deferred income tax liability	(2)	(6)
	$ —	$ (3)

The Company regularly assesses the need for a valuation allowance against its deferred tax assets. In making that assessment, the Company considers both positive and negative evidence related to the likelihood of realization of the deferred tax assets to determine, based on the weight of available evidence, whether it is more likely than not that some or all of the deferred tax assets will be realized.

In evaluating the need for a valuation allowance, the Company noted that there had been three years of cumulative losses including fiscal 2019. In fiscal 2019, the Company was able to utilize a portion of its deferred tax assets resulting in a reduction in the deferred tax valuation allowance of $55 million (February 28, 2018 - decrease of $169 million). As a result, the deferred tax valuation allowance had an ending balance of $1,192 million (February 28, 2018 - $1,221 million). This accounting treatment has no effect on the Company's ability to utilize deferred tax assets to reduce future cash tax payments. The Company will continue to assess the likelihood that the deferred tax assets will be realizable at each reporting period and the valuation allowance will be adjusted accordingly.

The Company's total unrecognized income tax benefits as at February 28, 2019 and February 28, 2018 were $84 million and $73 million, respectively. A reconciliation of the beginning and ending amount of unrecognized income tax benefits that, if recognized, would affect the Company's effective income tax rate is as follows:

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Unrecognized income tax benefits, opening balance	$ 73	$ 65	$ 37
Increase for income tax positions of prior years	10	4	28
Increase for income tax positions of current year	5	4	—
Settlement of tax positions	(4)	—	—
Unrecognized income tax benefits, ending balance	$ 84	$ 73	$ 65

As at February 28, 2019, $71 million of the unrecognized tax benefits have been netted against deferred income taxes and $13 million has been recorded within income taxes payable on the Company's consolidated balance sheets.

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

A summary of open tax years by major jurisdiction is presented below:

Jurisdiction	
Canada[1]	Fiscal 2010 - 2019
United States[2]	Fiscal 2016 - 2019
United Kingdom	Fiscal 2018 - 2019

(1) Includes federal as well as provincial jurisdictions, as applicable.
(2) Pertains to federal tax years. Certain state jurisdictions remain open from fiscal 2015 through fiscal 2019.

The Company is subject to ongoing examination by tax authorities in the 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. The Company believes it is reasonably possible that approximately $2 million of its gross unrecognized income tax benefits will be realized in the next twelve months. While the final resolution of these 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.

The Company recognizes interest and penalties related to unrecognized income tax benefits as interest expense that is netted and reported within investment income (loss). The amount of interest accrued as at February 28, 2019 was approximately $5 million (February 28, 2018 - approximately $2 million). The amount of penalties accrued as at February 28, 2019 was $2 million (February 28, 2018 - nominal).

As at February 28, 2019, the Company has the following net operating loss carryforwards and tax credits, which are scheduled to expire in the following years:

Year of Expiry	Net Operating Losses	Capital Losses	Research and Development Tax Credits[1]	Minimum Taxes
2028	$ —	$ —	$ —	$ 1
2029	10	—	—	—
2030	—	—	5	104
2031	—	—	5	128
2032	4	—	3	27
2033	97	—	106	1
2034	94	—	106	1
2035	11	—	51	2
2036	399	—	40	—
2037	472	—	25	—
2038	270	—	19	—
2039	217	—	17	—
Indefinite	—	30	21	—
	$ 1,574	$ 30	$ 398	$ 264

(1) Includes federal, provincial and state balances.

On December 22, 2017, the Tax Cuts and Jobs Act (the "TCJA") was enacted into law, which significantly changed existing U.S. tax law and included numerous provisions that affected the business, such as imposing a one-time transition tax on deemed repatriation of deferred foreign income, reducing the U.S. federal statutory tax rate, limiting deductibility of executive compensation and creating new minimum taxes such as the Base Erosion Anti-Abuse Tax ("BEAT").

In fiscal 2018 the Company recorded provisional amounts for certain enactment-date effects of the TCJA by applying the guidance in SAB 118 which was issued to address the application of U.S. GAAP in situations when a registrant did not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the TCJA. In accordance with the TCJA, in fiscal 2018 the Company recorded a recovery of $3 million for the recognition of certain of its deferred tax assets and a deferred income tax expense for the change in the enacted rate of $67 million, which was fully offset by a $67 million tax recovery for a corresponding decrease in the valuation allowance related to the above mentioned deferred tax assets and liabilities.

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

December 22, 2018 marked the end of the measurement period for purposes of SAB 118. As such, the Company has completed the analysis based on legislative updates relating to the TCJA currently available which resulted in no change to amounts already recorded.

10. 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 "3.75% Debentures"), which partially replaced $1.25 billion aggregate principal amount of debentures issued in a private placement in fiscal 2014 (the "6% Debentures") as described below (collectively, the "Debentures").

Interest on the 3.75% Debentures is payable quarterly in arrears at a rate of 3.75% per annum. The 3.75% 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 3.75% Debentures, subject to adjustments. Covenants associated with the 3.75% Debentures include limitations on the Company's total indebtedness.

Under specified events of default, the outstanding principal and any accrued interest on the 3.75% 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 3.75% Debentures are subject to a change of control provision whereby the Company would be required to make an offer to repurchase the 3.75% 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 changes in fair value of the 3.75% Debentures for the fiscal year ended February 28, 2019:

	As at February 28, 2019
Balance as at February 28, 2018	$ 782
Change in fair value of the 3.75% Debentures	(117)
Balance as at February 28, 2019	$ 665

The difference between the fair value of the 3.75% Debentures and the unpaid principal balance of $605 million is $60 million. The fair value of the 3.75% Debentures is measured using Level 2 fair value inputs.

As a result of the adoption of ASU 2016-01, the Company recognized the cumulative change in fair value of the 3.75% Debentures from instrument-specific credit risk as of March 1, 2018 of approximately $14 million, through a cumulative increase to AOCI, as described in Note 2.

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

The following table shows the impact of the change in fair value of the Debentures for the fiscal years ended February 28, 2019, February 28, 2018 and February 28, 2017:

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Income (charge) associated with the change in fair value from non-credit components recorded in the statement of operations	$ 117	$ (191)	$ (24)
Income associated with the change in fair value from instrument-specific credit components recorded in AOCI	—	—	—
Total decrease (increase) in the fair value of the Debentures (1)(2)	$ 117	$ (191)	$ (24)

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(1) Prior to the adoption of ASU 2016-01 on March 1, 2018, the change in fair value from instrument-specific credit components of the Debentures was recorded in the consolidated statement of operations for the fiscal years ended February 28, 2018 and February 28, 2017.

(2) In fiscal 2017, the Company recorded non-cash income associated with the change in the fair value of the 3.75% Debentures of $14 million and charges associated with the change in the fair value of the 6% Debentures of $38 million, as described below. The Company recorded total charges associated with the change in the Debentures of $24 million in fiscal 2017.

The Company recorded interest expense related to the 3.75% Debentures of $24 million, which has been included in investment income (loss) on the Company's consolidated statements of operations in fiscal 2019 (fiscal 2018 - $23 million; fiscal 2017 - $48 million). The Company is required to make quarterly interest-only payments of approximately $6 million during the remaining term the 3.75% Debentures are outstanding.

Fairfax, a related party under U.S. GAAP, owned $500 million principal amount of the 6% Debentures and also purchased $500 million principal amount of the 3.75% Debentures. As such, the redemption of Fairfax's portion of the 6% Debentures, the investment by Fairfax in the 3.75% Debentures and the payment of interest on the 3.75% Debentures owned by Fairfax represent related-party transactions. Fairfax receives interest at the same rate as other 3.75% Debenture holders.

6% Convertible Debentures

In fiscal 2014, the Company issued $1.25 billion of 6% Debentures. The terms of the 6% Debentures were substantially similar to those of the 3.75% Debentures, except for an interest rate of 6%, and the Company had an option to redeem the 6% Debentures after November 13, 2016 at specified redemption prices in specified periods.

The Company recorded non-cash charges associated with the change in the fair value of the 6% Debentures of $38 million in fiscal 2017 prior to the redemption as described below.

On August 4, 2016, the Company announced that the Toronto Stock Exchange had accepted notice of the Company's normal course issuer bid to purchase up to $125 million principal amount of the outstanding 6% Debentures, representing 10% of the outstanding 6% Debentures as at July 31, 2016. During the second quarter of fiscal 2017, the Company repurchased and canceled approximately $5.0 million principal amount of 6% Debentures for approximately $5.3 million.

On August 26, 2016, the Company announced that, with the approval of the holders of the 6% Debentures, the indenture governing the 6% Debentures had been amended to permit optional redemption by the Company prior to November 13, 2016, the first date the Company would have otherwise been able to redeem the 6% Debentures. The Company announced that it would redeem the 6% Debentures for a redemption amount of approximately $1.33 billion (the "Redemption Amount", which included approximately $19 million in accrued interest), which would settle all outstanding obligations of the Company in respect of the 6% Debentures. The redemption was completed on September 2, 2016. As the Company accounted for the 6% Debentures at fair value, the impact to the consolidated statements of operations of the redemption was recorded in the second quarter of fiscal 2017, as the Redemption Amount represented the fair value of the 6% Debentures as at August 31, 2016.

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

11. CAPITAL STOCK

(a) Capital Stock

The Company is authorized to issue an unlimited number of non-voting, redeemable, retractable Class A common shares, an unlimited number of voting common shares and an unlimited number of non-voting, cumulative, redeemable, retractable preferred shares. As at February 28, 2019 and February 28, 2018, there were no Class A common shares or preferred shares outstanding.

The following details the changes in issued and outstanding common shares for the years ended February 28, 2019, February 28, 2018 and February 28, 2017:

	Capital Stock and Additional Paid-in Capital	
	Stock Outstanding (000's)	Amount
Common shares outstanding as at February 29, 2016	521,172	$ 2,448
Exercise of stock options	131	1
Common shares issued for RSU settlements	8,689	—
Stock-based compensation	—	60
Tax deficiencies related to stock-based compensation	—	(1)
Common shares issued for employee share purchase plan	505	4
Common shares outstanding as at February 28, 2017	530,497	2,512
Exercise of stock options	536	4
Common shares issued for RSU settlements	7,258	—
Stock-based compensation	—	49
Share repurchase	(1,992)	(9)
Common shares issued for employee share purchase plan	435	4
Common shares outstanding as at February 28, 2018	536,734	2,560
Exercise of stock options	105	1
Common shares issued for RSU settlements	10,156	—
Stock-based compensation	—	67
Exchange shares	—	35
Value of pre-combination service related to Replacement Awards included in purchase consideration	—	21
Common shares issued for employee share purchase plan	363	4
Common shares outstanding as at February 28, 2019	547,358	$ 2,688

The Company had 547 million voting common shares outstanding, 8 million options to purchase voting common shares, 21 million RSUs and 0.8 million DSUs outstanding as at April 1, 2019.

On June 23, 2017, the Company announced that it received acceptance from the Toronto Stock Exchange with respect to a normal course issuer bid to purchase for cancellation up to 31 million common shares of the Company, or approximately 6.4% of the outstanding public float as at May 31, 2017. During fiscal 2018, the Company repurchased approximately 2 million common shares at a cost of approximately $18 million. The Company recorded a reduction of approximately $9 million to capital stock and the amount paid in excess of the per share paid-in capital of the common shares of approximately $9 million was charged to deficit. All common shares repurchased by the Company pursuant to the normal course issuer bid have been canceled. During fiscal 2019, the Company did not repurchase any common shares. The common share repurchase program expired on June 26, 2018.

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

(b) Stock-based Compensation

Replacement awards

In connection with the Cylance acquisition, the Company granted 8,320,130 options and 824,046 RSUs ("Replacement Awards") to replace unvested Cylance employee stock options and unvested restricted share units, all of which were canceled upon the closing of the transaction. The Company was obligated to replace the unvested Cylance employee equity awards under the merger agreement governing the acquisition.

In accordance with *ASC Topic 805 - Business Combinations*, as the Company was obligated to conduct the replacement, these awards are considered to be replacement awards. Exchanges of share options or other share-based payment awards in conjunction with a business combination are modifications of share-based payment awards in accordance with *ASC Topic 718 - Compensation - Stock Compensation* ("ASC 718"). As a result, a portion of the fair-value-based measure of the Replacement Awards, is included in measuring the consideration transferred in the Cylance business combination. To determine the portion of the Replacement Awards that is consideration transferred, the Company has measured the value of both the Replacement Awards granted by the Company and the historical Cylance awards as of February 21, 2019 in accordance with ASC 718. The portion of the fair-value-based measure of the Replacement Awards that is part of the consideration transferred equals the portion of the replaced Cylance award that is attributable to pre-combination service. The Company is attributing a portion of the Replacement Awards to post combination service as these awards require post combination service. The fair value of the rollover consideration was estimated to be $39 million, net of forfeitures, of which $21 million was attributable to pre-acquisition services. The remaining fair value of $18 million will be recorded as stock-based compensation over the remaining vesting period subsequent to the acquisition date. As of February 28, 2019, the remaining amount of unrecognized expense for the replacement awards totaled $18 million.

Stock options

The Company recorded a charge to income and a credit to paid-in-capital of approximately $1 million in fiscal 2019 (fiscal 2018 - $1 million; fiscal 2017 - $1 million) in relation to stock option-based compensation expense.

The Company has presented excess tax deficiencies from the exercise of stock option-based compensation awards as a financing activity in the consolidated statements of cash flows.

Stock options previously granted under the Equity Plan generally vest over a period of three years, and are generally exercisable over a period of five years from the grant date. Replacement stock options granted under the Cylance Stock Plan generally vest between three months to four years and are generally exercisable over a period of five to ten years. The Company issues new shares to satisfy stock option exercises. There are approximately 12 million shares in the equity pool available for future grants under the Equity Plan as at February 28, 2019 and no shares available for future grants under the Cylance Stock Plan as at February 28, 2019.

A summary of option activity for fiscal 2019 is shown below:

	Options Outstanding			
	Number (000's)	Weighted Average Exercise Price	Average Remaining Contractual Life in Years	Aggregate Intrinsic Value (millions)
Balance as at February 28, 2018	862	7.57		
Granted during the year	8,320	3.93		
Exercised during the year	(105)	7.41		
Forfeited/canceled/expired during the year	(63)	7.97		
Balance as at February 28, 2019	9,014	$ 4.21	7.86	$ 41
Vested and expected to vest as at February 28, 2019	7,023	$ 4.27	7.74	$ 31
Exercisable as at February 28, 2019	556	$ 7.49	1.40	$ 1

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value that would have been received by the option holders if all in-the-money options had been exercised on February 28, 2019. The intrinsic value of stock options exercised during fiscal 2019, calculated using the average market price during the year, was approximately $2.55 per share (February 28, 2018 - $2.89; February 28, 2017 - $1.20).

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

A summary of unvested stock options since February 28, 2018 is shown below:

	Options Outstanding	
	Number (000's)	Weighted Average Grant Date Fair Value
Balance as at February 28, 2018	451	$ 2.40
Granted during the year	8,320	5.50
Vested during the year	(273)	2.42
Forfeited during the year	(40)	2.44
Balance as at February 28, 2019	8,458	$ 5.45

As at February 28, 2019, there was $15 million of unrecognized stock-based compensation expense related to unvested stock options that will be expensed over the vesting period, which, on a weighted average basis, results in a period of approximately 1.84 years. The total fair value of stock options vested during the year ended February 28, 2019 amounted to $1 million (February 28, 2018 - $1 million; February 28, 2017 - $1 million).

Cash received from the stock options exercised for the year ended February 28, 2019 amounted to $1 million (February 28, 2018 - $4 million; February 28, 2017 - $1 million). There were no tax deficiencies incurred by the Company related to stock options exercised as at February 28, 2019 (February 28, 2018 - tax deficiency of nil; February 28, 2017 - tax deficiency of nil).

During the year ended February 28, 2019, there were 8,320,130 replacement stock options granted, all as Replacement Awards in connection with the Cylance acquisition (February 28, 2018 - nil; February 28, 2017 - 672,712). The weighted average fair value of these grants was calculated using the BSM option pricing model with the following assumptions:

	February 28, 2019	February 28, 2018	February 28, 2017
Weighted average grant date fair value of stock options granted during the period	$3.97 to $7.48	$ —	$ 2.36
Assumptions:			
Risk-free interest rates	2.50% to 2.56%	—%	0.92%
Expected life in years	3.91 to 6.16	0.00	3.52
Expected dividend yield	—%	—%	—%
Volatility	37% to 40%	—%	38.86%

The Company has no current expectation of paying cash dividends on its common shares. The risk-free interest rates utilized during the life of the stock options are based on a U.S. Treasury security for an equivalent period. The Company estimates the volatility of its common shares at the date of grant based on a combination of the implied volatility of publicly traded options on its common shares and historical volatility, as the Company believes that this is a reasonable indicator of expected volatility going forward. The expected life of stock options granted under the Equity Plan is based on historical exercise patterns, which the Company believes are representative of future exercise patterns. The expected life of stock options granted under the Cylance Stock Plan is based on the simplified method, as the terms and conditions are different then those previously granted under the Equity Plan.

Restricted Share Units

The Company recorded compensation expense with respect to RSUs of approximately $66 million in the year ended February 28, 2019 (February 28, 2018 - $48 million; February 28, 2017 - $59 million).

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

A summary of RSU activity during fiscal 2019 is shown below:

	RSUs Outstanding			
	Number (000's)	Weighted Average Grant Date Fair Value	Average Remaining Contractual Life in Years	Aggregate Intrinsic Value (millions)
Balance as at February 28, 2018	14,932	7.87		
Granted during the year	14,245	9.45		
Vested during the year	(10,156)	7.14		
Forfeited/cancelled during the year	(1,263)	8.95		
Balance as at February 28, 2019	17,758	$ 9.48	1.74	$ 155
Vested and expected to vest February 28, 2019	16,030	$ 9.40	1.70	$ 139

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (the aggregate closing share price of the Company's common shares on February 28, 2019, that would have been received by RSU holders if all RSUs had been vested on February 28, 2019).

Tax deficiencies incurred by the Company related to the RSUs vested were nil for the year ended February 28, 2019 (February 28, 2018 - tax deficiency of nil; February 28, 2017 - tax deficiency of $1 million).

As at February 28, 2019, there was $112 million of unrecognized compensation expense related to RSUs that will be expensed over the vesting period, which, on a weighted average basis, results in a period of approximately 1.97 years.

During the year ended February 28, 2019, there were 14,245,412 RSUs granted (February 28, 2018 - 3,502,755), of which 824,046 RSUs were Replacement Awards in connection with the Cylance acquisition, all of which will be settled upon vesting by the issuance of new common shares.

During the year ended February 28, 2019, the weighted average fair value for RSUs granted was $9.45 (February 28, 2018 - $10.84; February 28, 2017 - $7.77). During the year ended February 28, 2019, the fair value of RSUs that vested was $73 million (February 28, 2018 - $54 million; February 28, 2017 - $67 million).

2019 Executive Chair Incentive Grant

In the first quarter of fiscal 2019, the Board approved an agreement to grant a time-based equity award, a long-term market performance-based equity award and a contingent cash award (together, the "2019 Executive Chair Grant") to the Company's Executive Chair and CEO as an incentive to remain as Executive Chair until November 3, 2023. The expense associated with the time-based equity award and market performance-based equity award is included in the compensation expense noted above. The equity and liability components of the agreement are summarized below:

Time-Based Equity Award

The time-based equity award consists of 5 million time-based RSUs that will vest annually in five equal tranches beginning on November 3, 2019.

Market Performance-Based Equity Award

The market performance-based equity award consists of five tranches, each of 1 million market-condition RSUs that will become earned and vested in increments of 1 million RSUs when the 10-day average closing price of the Company's common shares on the New York Stock Exchange reaches $16, $17, $18, $19 and $20, respectively. The grant date fair value and the derived service period for each of the market condition equity awards was determined through the use of a Monte Carlo simulation model utilizing Level 2 inputs. Should the target price of an award be reached prior to the derived service date, the remaining unrecognized compensation cost for the award will be accelerated and recorded at that time. Any market-condition RSUs that have not been earned before November 3, 2023 will terminate on such date.

Contingent Cash Award

The contingent cash award consists of a cash amount of $90 million that becomes payable should the 10-day average closing price of the Company's common shares on the New York Stock Exchange reach $30. 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, the fair value of which is determined at each reporting period end utilizing an option pricing model using Level 2 inputs and the associated compensation expense for the reporting period recorded. If unearned, the contingent cash award will terminate on November 3, 2023. See also the discussion under "Other contingencies" in Note 14. The Company recorded compensation expense with respect to the contingent cash award of approximately $1 million for the year ended February 28, 2019. The liability recorded in respect to the award was $1 million as at February 28, 2019 and is included within accrued liabilities.

Deferred Share Units

The Company issued 150,045 DSUs in the year ended February 28, 2019. There were 0.8 million DSUs outstanding as at February 28, 2019 (February 28, 2018 - 0.7 million). The Company had a liability of $7.2 million in relation to the DSU Plan as at February 28, 2019 (February 28, 2018 - $8.2 million) included in accrued liabilities.

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

12. EARNINGS (LOSS) PER SHARE

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

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Net income (loss) for basic and diluted earnings (loss) per share available to common shareholders	$ 93	$ 405	$ (1,206)
Less: Debentures fair value adjustment [1] [2]	(117)	—	—
Add: interest expense on Debentures [1] [2]	24	—	—
Net income (loss) for diluted earnings (loss) per share available to common shareholders	$ —	$ 405	$ (1,206)
Weighted average number of shares outstanding (000's) - basic and diluted	540,477	532,888	525,265
Effect of dilutive securities (000's)			
Stock-based compensation [3] [4]	11,308	12,998	—
Conversion of Debentures [1] [2]	60,500	—	—
Exchange shares from Cylance acquisition [5]	4,182	—	—
Weighted average number of shares and assumed conversions (000's) - diluted	616,467	545,886	525,265
Earnings (loss) per share - reported			
Basic	$ 0.17	$ 0.76	$ (2.30)
Diluted	$ 0.00	$ 0.74	$ (2.30)

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(1) The Company has not presented the dilutive effect of the Debentures using the if-converted method in the calculation of diluted earnings (loss) per share for the years ended February 28, 2018 and February 28, 2017, as to do so would be antidilutive. See Note 10 for details on the Debentures.

(2) The Company has presented the dilutive effect of the 3.75% Debenture using the if-converted method, assuming conversion at the beginning of fiscal 2019 for the year ended February 28, 2019. Accordingly, to calculate diluted earnings (loss) per share, the Company adjusted net income by eliminating the fiscal 2019 Debentures fair value adjustments and interest expense incurred on the 3.75% Debentures in the year ended February 28, 2019, and added the number of shares that would have been issued upon conversion to the diluted weighted average number of shares outstanding. See Note 10 for details on the 3.75% Debentures.

(3) The Company has not presented the dilutive effect of in-the-money options or RSUs that will be settled upon vesting by the issuance of new common shares in the calculation of diluted earnings (loss) per share for the year ended February 28, 2017, as to do so would be antidilutive following the dilutive impact of the debentures.

(4) The Company has 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 diluted earnings (loss) per share for the years ended February 28, 2019 and February 28, 2018. As at February 28, 2019, there were 8,985,836 options and 9,300,191 RSUs outstanding that were in-the-money and may have a dilutive effect on earnings (loss) per share in future periods (February 28, 2018 - 790,918 options and 14,068,069 RSUs).

(5) The Company has presented the dilutive effect of the common shares in connection with the Cylance acquisition (see Note 7) in the calculation of diluted earnings (loss) per share for the year ended February 28, 2019.

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

13. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The components of accumulated other comprehensive loss are as follows:

	As at		
	February 28, 2019	February 28, 2018	February 28, 2017
Accumulated net unrealized gains (losses) on available-for-sale investments	$ 2	$ (7)	$ (4)
Accumulated net unrealized losses on derivative instruments designated as cash flow hedges, net of tax	—	(1)	—
Foreign currency cumulative translation adjustment	(7)	(1)	(13)
Change in fair value from instruments-specific credit risk on Debentures	(14)	—	—
Actuarial losses associated with other post-employment benefit obligations	(1)	(1)	—
Accumulated other comprehensive loss	$ (20)	$ (10)	$ (17)

As a result of the adoption of ASU 2016-01, the Company reclassified $8 million in unrecognized losses on equity securities that had previously been recorded to other comprehensive income (loss), through a cumulative addition to deficit in the consolidated balance sheet as of March 1, 2018. The Company recognized approximately $14 million on the change in fair value from instrument-specific credit risk that had previously been recorded to deficit through a cumulative increase to accumulated other comprehensive loss in the consolidated balance sheet as of March 1, 2018.

During the year ended February 28, 2019, $3 million in gains (pre-tax and post-tax) associated with cash flow hedges were reclassified from AOCI into selling, marketing and administration expenses. For details concerning the impact of the adoption of ASU 2016-01 on AOCI, see Note 2.

14. COMMITMENTS AND CONTINGENCIES

(a) Credit Facility and Letters of Credit

The Company has $31 million in collateralized outstanding letters of credit in support of certain leasing arrangements entered into in the ordinary course of business. See the discussion of restricted cash in Note 3.

(b) Qualcomm Arbitration Award

On April 20, 2016, the Company and Qualcomm Incorporated ("Qualcomm") entered into an agreement to arbitrate a dispute regarding whether Qualcomm's agreement to cap certain royalties applied to payments made by the Company under a license between the parties. The binding arbitration hearing was held from February 27, 2017 to March 3, 2017 under the Judicial Arbitration and Mediation Services rules in San Diego, California. On April 11, 2017, the arbitration panel issued an interim decision, finding in favour of the Company. Subsequently, the Company reached an agreement with Qualcomm resolving all amounts payable in connection with the interim arbitration decision. Following a joint stipulation by the parties, the arbitration panel issued a final award on May 26, 2017 providing for the payment by Qualcomm to the Company of a total amount of $940 million including interest and attorneys' fees, which was net of $22 million in certain royalties owed by the Company to Qualcomm for calendar 2016 and the first quarter of calendar 2017 previously recorded within accrued liabilities on the consolidated balance sheets.

Approximately $815 million of the arbitration award represents the return of royalty overpayments. This amount was recorded within Arbitration awards and settlements, net on the consolidated statements of operations in the first quarter of fiscal 2018. In the first quarter of fiscal 2018, the Company also recorded on the consolidated statements of operations, recoveries of legal expenses of approximately $8 million included in selling, marketing and administration, and $139 million of interest income within investment income (loss), net, for a total gain associated with the award of $962 million.

(c) Nokia Arbitration Decision

On April 28, 2016, Nokia Corporation ("Nokia") filed a Request for Arbitration with the International Chamber of Commerce International Court of Arbitration. The dispute related to whether certain payments due under a patent agreement between the parties were in fact owed under the terms of the agreement. An arbitration hearing was held May 8-9, 2017 in New York and on November 29, 2017, the arbitration panel issued a decision, finding in favour of Nokia and awarding it approximately $137 million. On December 12, 2017, Nokia submitted a Petition for Correction to the arbitrators requesting correction of a computational error in the amount of pre-award interest provided for in the original award. On January 31, 2018, the arbitrators issued an addendum correcting this error. In the third quarter of fiscal 2018, the Company recorded $148 million in charges associated with the arbitration, consisting of $132 million within Arbitration awards and settlements, net and $16 million in interest expense within investment income (loss), net on the consolidated statements of operations.

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

(d) Panasonic Settlement Agreement

In fiscal 2019, the Company and Panasonic Corporation entered into a settlement agreement whereby the Company received approximately $12 million in connection with previously purchased components utilized by the legacy handheld devices business. This amount, net of legal costs of approximately $3 million, was recorded within Arbitration awards and settlements, net on the consolidated statements of operations in the fourth quarter of fiscal 2019.

(e) Lease Commitments

The Company is committed to future minimum annual lease payments related to real estate operating leases as follows:

For the fiscal years ending:		
2020	$	37
2021		29
2022		27
2023		28
2024		23
Thereafter		57
	$	201

For the year ended February 28, 2019, the Company incurred rental expense of $31 million (February 28, 2018 - $32 million; February 28, 2017 - $37 million).

(f) 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 February 28, 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 possible 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, unsupportable, 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 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 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 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. All 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 17, 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 expects to file its Statement of Defence in the first quarter of fiscal year 2020, and discovery will then proceed.

On October 12, 2015, a group of institutional investors of Good Technology Corporation ("Good") filed a putative class action lawsuit on behalf of Good's common shareholders against members of Good's former board of directors (the "GTC Directors") related to the Company's acquisition of Good (the "GTC Lawsuit"). The plaintiffs allege that the GTC Directors breached their fiduciary duty by engaging in a self-interested transaction that benefited the preferred shareholders at the expense of the common shareholders. The plaintiffs are seeking monetary damages, as well as rescission of the merger agreement between Good and the Company. While neither Good nor the Company are parties to the GTC Lawsuit, Good has certain obligations to indemnify some of the defendants and is providing a defense. On October 29, 2015, Good filed a complaint alleging that the plaintiffs breached their contractual obligations under a voting agreement providing that, in the event of a sale transaction that was approved by both the GTC Directors and a majority of the Good preferred shareholders, the plaintiffs were required to vote their shares in favour of the transaction and refrain from exercising any appraisal or dissent rights (the "Voting Rights Lawsuit"). Good alleges that the filing of the GTC Lawsuit was a breach of the voting agreement. On December 31, 2015, several Good shareholders filed a petition seeking appraisal against Good (the "Appraisal Lawsuit"). On August 25, 2016, the Court granted the plaintiff's motion for leave to file an amended complaint in the GTC Lawsuit naming additional defendants, including JP Morgan Chase and various venture capital funds whose designees were Good directors (the "Fund Defendants"). Good and the Company are not named in the amended complaint. On May 23, 2017, the plaintiffs reached a tentative settlement with the GTC Directors and Fund Defendants of the GTC Lawsuit. On May 31, 2017, the plaintiffs and JP Morgan Chase reached a tentative settlement of the GTC Lawsuit. On July 24, 2017, Good, the petitioners in the Appraisal Lawsuit and the defendants in the Voting Rights Lawsuit entered into an Agreement of Settlement, Dismissal, and Release and filed same with the court. On August 8, 2017, the Court issued an order granting the parties' settlement terms. On August 18, 2017, the Company and JP Morgan Chase entered into a Settlement Funding Agreement, by which the Company agreed to fund JP Morgan Chase's settlement with the plaintiffs. On August 22, 2017, JP Morgan Chase and the plaintiffs filed a Stipulation and Agreement of Compromise and Settlement with the Court. The Court approved the settlement between plaintiffs and JP Morgan Chase and entered a Final Judgment on April 5, 2018. On November 9, 2017, the Company filed a demand for arbitration seeking the release of funds from an escrow fund account established when the Company acquired Good to indemnify the Company for certain costs incurred in connection with the defense and settlement of the GTC Lawsuit and the Appraisal Lawsuit. On August 15, 2018, all parties entered into a Global Settlement Agreement resolving all remaining disputes. On November 5, 2018, the Court approved the Global Settlement Agreement and all issues affecting the Company have been resolved. On February 11, 2019, the Delaware Supreme Court affirmed the Chancery Court's entry of a final judgment resolving all issues, and denied a motion for rehearing on February 28, 2019.

During the first quarter of fiscal 2018, the Company accrued $10 million for legal costs related to litigation arising out of its acquisition of Good. As a result of the Global Settlement Agreement reached in the second quarter of fiscal 2019, the Company recorded a recovery of $2 million against this accrual.

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. See further discussion under "Contingent Cash Award" in Note 11.

(f) 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.

(g) 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 fiscal 2019. See the Company's

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

Management Information Circular for its 2018 annual meeting of shareholders for additional information regarding the Company’s indemnification agreements with its current and former directors and executive officers.

15. 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 as described in Note 1.

Revenue, classified by major geographic regions in which the Company’s customers are located, was as follows:

	For the Years Ended					
	February 28, 2019 (1)		February 28, 2018 (2)		February 28, 2017 (2)	
North America (3)	599	66.2%	540	58.0%	659	50.3%
Europe, Middle East and Africa	222	24.6%	278	29.8%	461	35.2%
Latin America	7	0.8%	15	1.6%	35	2.7%
Asia Pacific	76	8.4%	99	10.6%	154	11.8%
	$ 904	100.0%	$ 932	100.0%	$ 1,309	100.0%

(1) As reported under the new revenue recognition standard, ASC 606.

(2) Comparative information has not been restated and continues to be reported under the accounting standards in effect for previous periods.

(3) 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.

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

	For the Years Ended		
	February 28, 2019 (1)	February 28, 2018 (2)	February 28, 2017 (2)
Enterprise software and services	$ 355	$ 388	$ 345
BlackBerry Technology Solutions	204	163	151
Licensing, IP and other	286	196	126
Handheld devices	13	64	374
SAF	46	121	313
	$ 904	$ 932	$ 1,309

(1) As reported under the new revenue recognition standard, ASC 606.

(2) Comparative information has not been restated and continues to be reported under the accounting standards in effect for previous periods.

Enterprise software and services includes revenue from the Company’s security, productivity, collaboration and end-point management solutions through the BlackBerry Secure platform, which includes BlackBerry Unified Endpoint Manager (UEM), BlackBerry Dynamics, BlackBerry Workspaces and BBM Enterprise, among other products and applications, as well as revenue from the sale of the Company’s AtHoc Alert secure networked crisis communications solution, its Secusmart SecuSUITE secure voice and text solution, and professional services from BlackBerry Cybersecurity Services and BlackBerry Cylance.

BlackBerry Technology Solutions includes revenue from the Company’s QNX CAR Platform and Neutrino Operating System, among other BlackBerry QNX products, as well as revenue from the Company’s BlackBerry Radar asset tracking solution, Paratek antenna tuning technology, and Certicom cryptography and key management products.

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

Licensing, IP and other includes revenue from the Company's mobility licensing software arrangements, including revenue from licensed hardware sales and intellectual property licensing, and from the Company's BBM Consumer licensing arrangement.

Handheld devices includes revenue from the sale of the DTEK60 and all prior BlackBerry smartphone models to carriers and distributors, accessories and repair services of handheld devices and the release of previously accrued amounts when the Company determines it has no further performance obligations.

SAF 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 sold by the Company.

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

	For the Year Ended February 28, 2019
Products and services transferred over time	$ 488
Products and services transferred at a point in time	416
Total	$ 904

Revenue Contract Balances

The following table sets forth the activity in the Company's revenue contract balances for the fiscal year ended February 28, 2019:

	Accounts Receivable	Deferred Revenue	Deferred Commissions
Opening balance as at March 1, 2018 (as adjusted for ASC 606)	$ 151	$ 292	$ 21
Increases due to invoicing of new or existing contracts, associated contract acquisition costs, or other	671	563	23
Increase due to Cylance acquisition	33	95	—
Decreases due to payment, fulfillment of performance obligations, or other	(661)	(600)	(21)
Increase, net	43	58	2
Closing balance as at February 28, 2019	$ 194	$ 350	$ 23

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 February 28, 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 February 28, 2019			
	Less than 12 Months	12 to 24 Months	Thereafter	Total
Remaining performance obligations	$ 336	$ 143	$ 101	$ 580

Revenue Recognized for Performance Obligations Satisfied in Prior Periods

For the fiscal year ended February 28, 2019, $11 million in revenue was 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

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

CEO, reviews financial information, makes decisions and assesses the performance of the Company as a single operating segment.

Property, plant and equipment, intangible assets and goodwill, classified by geographic segments in which the Company's assets are located, were as follows:

	As at			
	February 28, 2019		February 28, 2018	
	Property, Plant and Equipment, Intangible Assets and Goodwill	Total Assets	Property, Plant and Equipment, Intangible Assets and Goodwill	Total Assets
Canada	$ 396	$ 654	$ 425	$ 640
United States	2,178	3,089	627	2,922
Other	42	186	58	218
	$ 2,616	$ 3,929	$ 1,110	$ 3,780

Information About Major Customers

There was one customer that comprised more than 10% of the Company's revenue in fiscal 2019 (fiscal 2018 - no customers that comprised more than 10%; fiscal 2017 - no customers that comprised more than 10%).

16. CASH FLOW AND ADDITIONAL INFORMATION

(a) Certain consolidated statements of cash flow information related to interest and income taxes paid is summarized as follows:

	For the Years Ended		
	February 28, 2019	February 28, 2018	February 28, 2017
Interest paid during the year	$ 24	$ 39	$ 48
Income taxes paid during the year	6	6	10
Income tax refunds received during the year	15	7	19

(b) Additional information

Advertising expense, which includes media, agency and promotional expenses totaling $22 million (February 28, 2018 - $23 million; February 28, 2017 - $38 million) is included in selling, marketing and administration expenses for the fiscal year ended February 28, 2019.

Selling, marketing and administration expenses for the fiscal year ended February 28, 2019 included $2 million with respect to foreign exchange gains (February 28, 2018 - losses of nil; February 28, 2017 - losses of $4 million).

BLACKBERRY LIMITED

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE THREE MONTHS AND FISCAL YEAR ENDED FEBRUARY 28, 2019

April 5, 2019

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read together with the audited consolidated financial statements and the accompanying notes (the "Consolidated Financial Statements") of BlackBerry Limited (the "Company" or "BlackBerry"), for the fiscal year ended February 28, 2019**.** 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 fiscal year ended February 28, 2019 and up to and including April 5, 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 ("SEC") 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 grow revenue and increase and enhance its product and service offerings;
- the Company's expectations regarding revenue, billings, market share, gross margin and earnings for fiscal 2020;
- the Company's expectations regarding the profitability of BlackBerry Cylance;
- 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", "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Consolidated Revenue", "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Consolidated Gross Margin", "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Net Income", 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 and its perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate in the circumstances, including but not limited to, the Company's expectations regarding its business, strategy, opportunities and prospects, the launch of new products and services, general economic conditions, competition, and the Company's expectations regarding its financial performance. 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 following factors, most of which are discussed in greater detail in the "Risk Factors" section of the AIF, which is included in the Annual Report, 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;
- risks related to acquisitions, divestitures, investments and other business initiatives, which may negatively affect the Company's results of operations;
- risks related to the Company's products and services being dependent upon interoperability with rapidly changing systems provided by third parties;
- the risk that failure to protect the Company's intellectual property could harm its ability to compete effectively and the Company may not earn the revenues it expects from intellectual property rights;
- the risk that the Company could be found to have infringed on the intellectual property rights of others;
- the risk that litigation against the Company may result in adverse outcomes;
- risks related to the use and management of user data and personal information, which could give rise to liabilities as a result of legal, customer and other third-party requirements;
- the Company's ability to obtain rights to use third-party software;
- the risk that network disruptions or other business interruptions could have a material adverse effect on the Company's business and harm its reputation;
- the Company's ability to generate revenue and profitability through the licensing of security software and services or the BlackBerry brand to device manufacturers;
- the substantial asset risk faced by the Company, including the potential for charges related to its long-lived assets and goodwill;
- risks related to the Company's indebtedness, which could adversely affect its operating flexibility and financial condition;
- risks related to government regulations applicable to the Company's products and services, including products containing encryption capabilities, which could negatively impact the Company's business;
- risks related to foreign operations, including fluctuations in foreign currencies;
- risks associated with any errors in the Company's products and services, which can be difficult to remedy and could have a material adverse effect on the Company's business;
- risks related to the failure of the Company's suppliers, subcontractors, channel partners and representatives to use acceptable ethical business practices or comply with applicable laws;
- the Company's reliance on third parties to manufacture and repair its hardware products;
- risks related to fostering an ecosystem of third-party application developers;
- risks related to regulations regarding health and safety, hazardous materials usage and conflict minerals, and to product certification risks;
- risks related to tax provision changes, the adoption of new tax legislation, or exposure to additional tax liabilities;
- risks related to the fluctuation of the Company's quarterly revenue and operating results;
- the volatility of the market price of the Company's common shares; and
- risks related to adverse economic and geopolitical conditions.

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.

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 enables the Enterprise of Things by providing the technology that allows endpoints to trust one another, communicate securely, and maintain privacy. Based in Waterloo, Ontario, the Company was founded in 1984 and operates globally. 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 for the Enterprise of Things. The Company defines the Enterprise of Things as the network of devices, computers, vehicles, sensors, equipment and other connected endpoints within the enterprise that communicate with each other to enable smart business processes that span across people, connected endpoints and their data. The Company leverages many elements of its extensive technology portfolio to extend best-in-class security and reliability to its solutions for the Enterprise of Things, 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 strategic industry verticals. Please also see the "Narrative Description of the Business - Strategy" section in the AIF, which is included in the Annual Report.

Products and Services

The Company's core software and services offering is its end-to-end Enterprise of Things platform that comprises endpoint management capabilities, enterprise communication and collaboration software and safety-certified embedded solutions, including BlackBerry UEM, BlackBerry Dynamics, BlackBerry AtHoc, Secusmart, BlackBerry Workspaces, and the technologies offered by BlackBerry QNX. The Company is developing BlackBerry Spark, a next-generation secure communications platform that will create and leverage trusted connections between endpoints, and intends to integrate the artificial intelligence and machine learning cybersecurity capabilities of BlackBerry Cylance with BlackBerry Spark.

BlackBerry UEM offers a "single pane of glass", or unified console view, for managing and securing devices, applications, identity, content, and Internet of Things 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 provides secure, networked crisis communications solutions, and Secusmart provides secure voice and text messaging solutions with advanced encryption and anti-eavesdropping capabilities.

The acquisition of Cylance in late fiscal 2019 has provided the Company with a leading artificial intelligence 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 ("EDR") solution that provides both visibility into and prevention of malicious activity on an endpoint. Unlike traditional signature-based cybersecurity products, the BlackBerry Cylance solution can predict whether code that has never been seen before, known in the cybersecurity industry as "zero-day" threats, is malicious and prevent it from running.

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 certified safety-critical modules and platform solutions and is focusing on achieving design wins with automotive original equipment manufacturers, Tier 1 vendors and automotive semiconductor suppliers.

The Company also offers its BlackBerry Radar asset tracking solution, BlackBerry Jarvis code security testing platform, Paratek antenna tuning technology, BlackBerry Certicom cryptography and key management products, BlackBerry Messenger ("BBM") Enterprise service, and BlackBerry Spark Communication Services for the Communications Platform as a Service market.

The Company is also engaged in 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 intends to expand its security software and brand licensing program, under which the BlackBerry KEY2, BlackBerry Evolve and other smartphones have been launched to date, to include a broader set of devices and non-smartphone endpoints. The Company also licenses its other intellectual property assets, including certain of its patents as well as assets related to the BBM Consumer service.

In addition, the Company continues to generate 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.

Please also see the "Narrative Description of the Business - Products and Services" section in the AIF, which is included in the Annual Report.

Recent Developments

The Company continued to execute on its strategy in fiscal 2019. The Company also announced the following achievements:

- Completed the acquisition of Cylance Inc. ("Cylance"), an artificial intelligence and cybersecurity leader, for $1.4 billion in cash, plus the assumption of unvested employee incentive awards;
- Announced the development of BlackBerry Spark, the Company's new Enterprise of Things platform integrating the Company's endpoint management and embedded software technology to enable secure communication and collaboration between smart endpoints;
- Recognized as a leader for the second year in a row in the IDC MarketScape: Worldwide Enterprise Mobility Management Software 2018 Vendor Assessment;
- Launched three new automotive software products certified to ISO 26262, the automotive industry's functional safety standard: BlackBerry's QNX Hypervisor for Safety, QNX Platform for ADAS 2.0, and QNX OS for Safety 2.0, enabling automakers to accelerate development timelines and reduce cost;
- Announced that BlackBerry QNX software is embedded in the advanced driver assistance system, digital instrument clusters, connectivity modules, handsfree systems or infotainment systems of more than 120 million cars on the road;
- Entered into a strategic partnership with Microsoft Corp. to offer enterprises BlackBerry Enterprise Bridge, a solution that integrates BlackBerry's expertise in mobility and security with Microsoft's cloud and productivity products;
- Entered into a multi-year agreement with Jaguar Land Rover to collaborate and develop technology for the automotive manufacturer's next-generation vehicles;
- Collaborated with the Government of Canada to modernize their operations centers with BlackBerry AtHoc during G7 ministerial meetings and the 2018 G7 Summit;
- Joined the OmniAir Consortium as an executive member to help advance the testing, certification, and deployment of technologies for connected vehicles and intelligent transportation systems;
- Signed a BlackBerry Secure technology and brand licensing deal with Swiss consumer electronics maker Punkt Tronics AG;
- Entered into a licensing agreement with Bullitt Group to embed BlackBerry cybersecurity technology into a range of highly-secure, rugged Caterpillar- and Land Rover-branded connected devices to be certified as "BlackBerry Secure";
- Entered into an arrangement with electric vehicle maker BYTON to use BlackBerry QNX technologies for the in-car experience within its first series of production vehicles;
- Entered into a multi-year strategic relationship with Samsung Electronics Co. Ltd. to collaborate on integrated solutions to accelerate the digital transformation of their shared business customers;
- Launched a new ransomware recovery capability within BlackBerry Workspaces that allows organizations to quickly recover from cyberattacks;
- Entered into a global independent software vendor partnership with Check Point Software Technologies Ltd. to mitigate cybersecurity threats;
- Entered into a partnership with L-SPARK to help small and medium-sized technology enterprises grow their businesses and bring new products to market using BlackBerry QNX technology;
- Entered into a partnership with ONEBIO to use BlackBerry's renowned carrier-grade network operation center to power a blockchain digital ledger provided by ONEBIO in order to create an ultra-secure global ecosystem for the storing and sharing of medical data;
- Launched QNX OS Medical 2.0, a real-time operating system for use in the development of secure medical devices;
- Entered into a partnership with Mackenzie Innovation Institute to explore security and connectivity between the BlackBerry Spark platform and its 'smart' healthcare technology vision;
- Launched a quantum-resistant code signing server to allow software to be digitally signed using a scheme that will be difficult to breach with a quantum computer;
- Entered into a partnership with Virginia Tech to help advance the Department of Mechanical Engineering's connected and autonomous vehicle research and provide hands-on training with BlackBerry QNX software;

- Expanded a partnership with Renesas to offer an integrated virtualization, functional safety and secure development environment for the Renesas R-Car system-on-chip devices;
- Announced a new Security Credential Management System service based on BlackBerry's Certicom technology to help the private and public sectors come together to accelerate the development of Smart Cities and Intelligent Transportation Systems;
- Launched QNX Platform for Digital Cockpits, the world's first digital cockpit solution to allow automakers to combine customer experience with safety;
- Launched BlackBerry Secure feature packs for Enterprise of Things device manufacturers to securely build smart products;
- Expanded its partnerships with Android and PLDT Enterprise, through Smart Communications Inc. to provide MiCab, an online taxi-hailing platform, with an integrated, secure enterprise cloud solution that maintains data privacy, meets compliance and accelerates service delivery;
- Expanded its partner ecosystem by growing enterprise ISV partners by 25 percent in the last year, signing on 140 new channel partners to the BlackBerry Enterprise Partner Program in the fiscal second quarter, signing four new channel partners to the BlackBerry QNX Distributor & Value-Added Integrator programs, and adding AWS as a cloud partner;
- Announced a commitment by the Government of Canada to invest up to CAD$40 Million to support the Company's investment in the development of BlackBerry QNX software for autonomous cars;
- Entered into a contract with NATO Communications and Information Agency for BlackBerry's SecuSUITE for Government to encrypt conversations of technology and cyber leaders;
- BlackBerry Cylance was recognized as a leader in five distinct categories of the 2019 Cybersecurity Excellence Awards: Best Cybersecurity Company, Most Innovative Cybersecurity Company, Endpoint Detection and Response, Endpoint Security, and Best Cybersecurity Podcast;
- Launched CylancePERSONA, the first proactive endpoint behavioral analytics solution;
- Announced that Verizon added BlackBerry Cylance's artificial intelligence driven antivirus security solutions to its industry-leading Managed Security Services portfolio; and
- Established a new subsidiary, BlackBerry Government Solutions, a new independent wholly-owned subsidiary that will accelerate the company's Federal Risk and Authorization Management Program (FedRAMP) initiatives and deepen ties with U.S. federal agencies.

Acquisition of Cylance

On February 21, 2019, the Company completed the acquisition of Cylance for $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. Its embeddable AI technology is expected to accelerate the development of the BlackBerry Spark platform, which the Company announced in 2018.

2019 Executive Chair Incentive Grant

In the first quarter of fiscal 2019, the Company granted a time-based equity award, a long-term market performance-based equity award and a contingent cash award to the Company's Executive Chair and CEO as an incentive to remain as Executive Chair until November 3, 2023.

The time-based equity award consists of five million time-based RSUs that will vest annually in five equal tranches beginning on November 3, 2019. The market performance-based equity award consists of five tranches, each of one million market-condition RSUs that will become earned and vested when the 10-day average closing price of the Company's common shares on the New York Stock Exchange reaches $16, $17, $18, $19 and $20, respectively. Any market-condition RSUs that have not been earned before November 3, 2023 will terminate on such date. The contingent cash award consists of a cash amount of $90 million that will become payable when the 10-day average closing price of the Company's common shares on the New York Stock Exchange reaches $30. If unearned, the contingent cash award will terminate on November 3, 2023.

Normal Course Issuer Bid

On June 23, 2017, the Company announced that it had received acceptance from the TSX with respect to a normal course issuer bid ("NCIB") to repurchase up to 31 million common shares of the Company, representing approximately 6.4% of the public float of common shares outstanding as of May 31, 2017. The purpose of the NCIB is to offset a portion of the expected dilution from the Company's equity incentive plan and from the conversion of the 3.75% Debentures. The Company also announced that it had entered into an automatic purchase plan with its designated broker.

During fiscal 2018, the Company repurchased approximately 2 million common shares at a cost of approximately $18 million. All common shares repurchased by the Company pursuant to the NCIB have been canceled. The Company recorded a reduction of approximately $9 million to capital stock and the amount paid in excess of the per share paid-in capital of the common shares of approximately $9 million was charged to deficit. The NCIB expired on June 26, 2018. During fiscal 2019, the Company did not repurchase any common shares.

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. On March 29, 2019, the Company announced financial results for the three months and fiscal year ended February 28, 2019, 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 income (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 due to the financial statement impact of the Company’s transformation from a hardware-focused handset manufacturer to an enterprise software and services company with recurring revenue streams.

For the three months ended February 28, 2019, these measures were adjusted for the following (collectively, the “Q4 Fiscal 2019 Non-GAAP Adjustments”) (all items pre-tax and after-tax):

- the Q4 Fiscal 2019 Debentures Fair Value Adjustment (as defined below under “Fiscal 2019 Summary Results of Operations – Financial Highlights – Debentures Fair Value Adjustment”) of approximately $6 million;
- restructuring charges from the Resource Allocation Program (“RAP”) consisting of amounts associated with employee termination benefits, facilities, and certain other costs of approximately $3 million;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately $2 million;
- stock compensation expense of approximately $14 million;
- amortization of intangible assets acquired through business combinations of approximately $18 million;
- business acquisition and integration costs incurred through business combinations of approximately $8 million;
- $9 million, net of legal costs, recorded from a settlement with Panasonic Corporation relating to previously purchased components utilized by the legacy handheld devices business (the “Panasonic Settlement”); and
- income tax recoveries related to the acquisition of Cylance of approximately $21 million.

For the fiscal year ended February 28, 2019, these adjustments (collectively, the “Fiscal 2019 Non-GAAP Adjustments”) consisted of the following (all items pre-tax and after-tax):

- the Fiscal 2019 Debentures Fair Value Adjustment (as defined below under “Fiscal 2019 Summary Results of Operations – Financial Highlights – Debentures Fair Value Adjustment”) consisting of charges of approximately $117 million;
- 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 $11 million on a net basis;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately $12 million;
- stock compensation expense of approximately $68 million;
- amortization of intangible assets acquired through business combinations of approximately $82 million;
- business acquisition and integration costs incurred through business combinations of approximately $12 million;
- $9 million, net of legal costs, recorded from the Panasonic Settlement; and
- income tax recoveries related to the acquisition of Cylance of approximately $21 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 before income taxes, adjusted net income, adjusted income 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 described in this MD&A. A reconciliation of non-GAAP financial measures for the three months and fiscal year ended February 28, 2019 to the most directly comparable U.S. GAAP measures was included in the Company's March 29, 2019 press release, and is reflected in the tables below:

Q4 Fiscal 2019 Non-GAAP Adjustments		For the Three Months Ended February 28, 2019 (in millions, except for per share amounts)					
	Income statement location	**Revenue**	**Gross margin (before taxes)**	**Gross margin % (before taxes)**	**Income before income taxes**	**Net income**	**Basic earnings per share**
As reported		$ 255	$ 206	80.8 %	$ 32	$ 51	$ 0.09
Debentures fair value adjustment[1]	Debentures fair value adjustment	—	—	— %	(6)	(6)	
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 [3]	2	2	0.1 %	2	2	
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	—	—	— %	18	18	
Business acquisition and integration costs	Selling, marketing and administration	—	—	— %	8	8	
Settlements, net	Arbitration awards and settlements, net	—	—	— %	(9)	(9)	
Acquisition income tax recoveries	Income taxes	—	—	— %	—	(21)	
		$ 257	$ 210	81.7 %	$ 62	$ 60	$ 0.11

(1) See "Fiscal 2019 Summary Results of Operations - Financial Highlights - Debentures Fair Value Adjustment"
(2) See "Fiscal 2019 Summary Results of Operations - Financial Highlights - Restructuring Charges"
(3) Included within Enterprise software and services revenue

Fiscal 2019 Non-GAAP Adjustments		For the Year Ended February 28, 2019 (in millions, except for per share amounts)					
	Income statement location	**Revenue**	**Gross margin (before taxes)**	**Gross margin % (before taxes)**	**Net income before income taxes**	**Net income**	**Basic earnings per share**
As reported		$ 904	$ 698	77.2%	$ 77	$ 93	$ 0.17
Debentures fair value adjustment [1]	Debentures fair value adjustment	—	—	—%	(117)	(117)	
Restructuring charges [2]	Cost of sales	—	2	0.2%	2	2	
Restructuring charges [2]	Research and development	—	—	—%	2	2	
Restructuring charges [2]	Selling, marketing and administration	—	—	—%	7	7	
Software deferred revenue acquired [3]	Revenue [3]	12	12	0.3%	12	12	
Stock compensation expense	Cost of sales	—	4	0.5%	4	4	
Stock compensation expense	Research and development	—	—	—%	12	12	
Stock compensation expense	Selling, marketing and administration	—	—	—%	52	52	
Acquired intangibles amortization	Amortization	—	—	—%	82	82	
Business acquisition and integration costs	Selling, marketing and administration	—	—	—%	12	12	
Settlements, net	Arbitration awards and settlements, net	—	—	—%	(9)	(9)	
Acquisition income tax recoveries	Income taxes	—	—	—%	—	(21)	
Adjusted		$ 916	$ 716	78.2%	$ 136	$ 131	$ 0.24

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[1] See "Fiscal 2019 Summary Results of Operations - Financial Highlights - Debentures Fair Value Adjustment".
[2] See "Fiscal 2019 Summary Results of Operations - Financial Highlights - Restructuring Charges".
[3] Included within Enterprise software and services revenue.

Similarly, on March 28, 2018, the Company announced financial results for the three months and fiscal year ended February 28, 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 February 28, 2018, these measures were adjusted for the following (collectively, the "Q4 Fiscal 2018 Non-GAAP Adjustments") (all items pre-tax and after-tax):

- a fair value adjustment associated with the Company's convertible debentures of approximately $34 million (the "Q4 Fiscal 2018 Debentures Fair Value Adjustment");
- selective patent abandonment of approximately $2 million;
- RAP charges of approximately $26 million;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately $6 million;
- stock compensation expense of approximately $13 million;
- amortization of intangible assets acquired through business combinations of approximately $22 million;
- an interest true-up gain relating to the interest paid under the Nokia arbitration of $1 million; and
- true-ups relating to legacy royalty arrangements under the handheld devices business of $1 million.

For the fiscal year ended February 28, 2018, these measures were adjusted for the following (collectively, the "Fiscal 2018 Non-GAAP Adjustments") (all items pre-tax and after-tax):

- a long-lived asset impairment charge associated with the Company's handheld devices business (the "Fiscal 2018 LLA Impairment Charge"), recognized when the carrying value exceeds the fair value of an asset group of $11 million;

- a fair value adjustment associated with the Company's convertible debentures of approximately $191 million;
- selective patent abandonment of approximately $4 million;
- RAP charges of approximately $78 million;
- software deferred revenue acquired but not recognized due to business combination accounting rules of approximately $35 million;
- stock compensation expense of approximately $49 million;
- amortization of intangible assets acquired through business combinations of approximately $95 million;
- business acquisition and integration costs incurred through business combinations of approximately $14 million;
- net arbitration awards related to the Qualcomm and Nokia arbitrations of $683 million;
- net interest income related to the Qualcomm and Nokia arbitrations of $123 million; and
- true-ups relating to legacy royalty arrangements under the handheld devices business of $1 million.

A reconciliation of non-GAAP financial measures for the three months and fiscal year ended February 28, 2018 to the most directly comparable U.S. GAAP measures was included in the Company's March 28, 2018 press release, and is reflected in the table below:

		For the Three Months Ended February 28, 2018 (in millions)				For the Year Ended February 28, 2018 (in millions)			
	Income Statement Location	**Revenue**	**Gross Margin**	**Income (loss) before income taxes**	**Net income (loss)**	**Revenue**	**Gross Margin**	**Income before income taxes**	**Net income**
As reported		$ 233	$ 177	$ (14)	$ (10)	$ 932	$ 670	$ 406	$ 405
LLA Impairment Charge	Impairment of long-lived assets	—	—	—	—	—	—	11	11
Debentures fair value adjustment	Debentures fair value adjustment	—	—	(34)	(34)	—	—	191	191
Selective patent abandonment	Loss on sale, disposal and abandonment of long-lived assets	—	—	2	2	—	—	4	4
Restructuring charges	Cost of sales	—	3	3	3	—	11	11	11
Restructuring charges	Research and development	—	—	—	—	—	—	5	5
Restructuring charges	Selling, marketing and administration	—	—	23	23	—	—	62	62
Software deferred revenue acquired	Revenue	6	6	6	6	35	35	35	35
Stock compensation expense	Cost of sales	—	1	1	1	—	4	4	4
Stock compensation expense	Research and development	—	—	3	3	—	—	12	12
Stock compensation expense	Selling, marketing and administration	—	—	9	9	—	—	33	33
Acquired intangibles amortization	Amortization	—	—	22	22	—	—	95	95
Arbitration awards, net	Arbitration awards and settlement, net	—	—	—	—	—	—	(683)	(683)
Arbitration awards, net	Investment Income (loss), net	—	—	(1)	(1)	—	—	(123)	(123)
Legacy royalty adjustments	Cost of sales	—	1	1	1	—	1	1	1
Business acquisition and integration costs	Selling, marketing and administration	—	—	—	—	—	—	14	14
Adjusted		$ 239	$ 188	$ 21	$ 25	$ 967	$ 721	$ 78	$ 77

The Company also reported adjusted EBITDA and adjusted EBITDA margin percentage for the three months and fiscal year ended February 28, 2019 of $73 million and $186 million, respectively. This is a non-GAAP financial measure that does not have any standardized meaning as prescribed by U.S. GAAP and is therefore unlikely to be comparable to a similar measure presented by other companies.

	For the Three Months Ended February 28, 2019 (in millions)	For the Year Ended February 28, 2019 (in millions)
Operating income	$ 28	$ 60
Non-GAAP adjustments to operating income		
Debentures fair value adjustment	(6)	(117)
RAP charges	3	11
Software deferred revenue acquired	2	12
Stock compensation expense	14	68
Acquired intangibles amortization	18	82
Business acquisition and integration costs	8	12
Arbitration awards and settlement, net	(9)	(9)
Total non-GAAP adjustments to operating income	30	59
Non-GAAP operating income	58	119
Amortization	33	149
Acquired intangibles amortization	(18)	(82)
Adjusted EBITDA	$ 73	$ 186
Adjusted revenue (per above)	257	916
Adjusted EBITDA margin %	28%	20%

Adjusted EBITDA and adjusted EBITDA margin percentage for the three months and fiscal year ended February 28, 2018 are reflected in the table below.

	For the Three Months Ended February 28, 2018 (in millions)	For the Year Ended February 28, 2018 (in millions)
Operating income (loss)	$ (17)	$ 283
Non-GAAP adjustments to operating income (loss)		
LLA Impairment Charge	—	11
Debentures fair value adjustment	(34)	191
Selective patent abandonment	2	4
RAP charges	26	78
Software deferred revenue acquired	6	35
Stock compensation expense	13	49
Acquired intangibles amortization	22	95
Business acquisition and integration costs	—	14
Arbitration awards and settlements, net	—	(683)
Legacy royalty adjustments	1	1
Total non-GAAP adjustments to operating income (loss)	36	(205)
Non-GAAP operating income	19	78
Amortization	39	177
Acquired intangibles amortization	(22)	(95)
Adjusted EBITDA	$ 36	$ 160
Adjusted revenue (per above)	239	967
Adjusted EBITDA margin %	15%	17%

The Company also reported free cash flow as described in "Fiscal 2019 Summary Results of Operations - Free Cash Flow", below.

Accounting Policies and Critical Accounting Estimates

Accounting Policies

See Note 1 to the Consolidated Financial Statements for a description of the Company's significant accounting policies.

Critical Accounting Estimates

The preparation of the consolidated financial statements requires management to make estimates and assumptions with respect to the reported amounts of assets, liabilities, revenue and expenses and the disclosure of contingent assets and liabilities. Significant areas requiring the use of management estimates relate to the determination of reserves for various litigation claims, revenue-related estimates including variable consideration, standalone selling price ("SSP"), estimated customer life, non-cash consideration, right of return and customer incentive commitments, fair value of goodwill, long-lived asset impairment, useful lives of capital and intangible assets, fair values of assets acquired and liabilities assumed in business combinations, provision for income taxes, realization of deferred income tax assets and the related components of the valuation allowance, allowance for doubtful accounts, and the fair value of the long-term debt. Actual results could differ from these estimates.

The Company's critical accounting estimates have been reviewed and discussed with the Company's Audit & Risk Management Committee and are set out below. Except as noted, there have not been any changes to the Company's critical accounting estimates during the past three fiscal years.

Valuation of Long-Lived Assets

The LLA impairment test prescribed by U.S. GAAP requires the Company to identify its asset groups and test impairment of each asset group separately. To conduct the LLA impairment test, the asset group is tested for recoverability using undiscounted cash flows over the remaining useful life of the primary asset. If forecasted net cash flows are less than the carrying amount of the asset group, an impairment charge is measured by comparing the fair value of the asset group to its carrying value. Determining the Company's asset groups and related primary assets requires significant judgment by management. Different judgments could yield different results.

The Company's determination of its asset groups, its primary asset and its remaining useful life, and estimated cash flows are significant factors in assessing the recoverability of the Company's assets for the purposes of LLA impairment testing. The Company's share price can be affected by, among other things, changes in industry or market conditions, including the effect of competition, changes in the Company's results of operations, changes in the Company's forecasts or market expectations relating to future results, and the Company's strategic initiatives and the market's assessment of any such factors. See "Risk Factors - The market price of the Company's common shares is volatile" in the AIF. The current macroeconomic environment and competitive dynamics continue to be challenging to the Company's business and the Company cannot be certain of the duration of these conditions and their potential impact on the Company's future financial results and cash flows. A decline in the Company's performance, the Company's market capitalization and future changes to the Company's assumptions and estimates used in the LLA impairment test, particularly the expected future cash flows, remaining useful life of the primary asset and terminal value of the asset group, may result in further impairment charges in future periods of some or all of the assets on the Company's balance sheet. Although it does not affect the Company's cash flow, an impairment charge to earnings has the effect of decreasing the Company's earnings or increasing the Company's losses, as the case may be. The Company's share price could also be adversely affected by the Company's recorded LLA impairment charges.

The Company used various valuation techniques to determine the fair values of its assets to measure and allocate impairment. Techniques related to real estate, capital equipment and intangible assets included the direct capitalization method, market comparable transactions, the replacement cost method, discounted cash flow analysis, as well as the relief from royalty and excess earnings valuation methods. Determining valuations using these valuation techniques requires significant judgment and assumptions by management. Different judgments could yield different results.

Valuation Allowance Against Deferred Tax Assets

The Company regularly assesses the need for a valuation allowance against its deferred tax assets. A valuation allowance is required for deferred tax assets if it is more likely than not that all or some portion of the asset will not be realized. All available evidence, both positive and negative, that may affect the realization of deferred tax assets must be identified and considered in determining the appropriate amount of the valuation allowance. Additionally, for interim periods, the estimated annual effective tax rate should include the valuation allowance for current year changes in temporary differences and losses or income arising during the year. For interim periods, the Company needs to consider the valuation allowance that it expects to recognize at the end of the fiscal year as part of the estimated annual effective tax rate. During interim quarters, the Company uses estimates including pre-tax results and ending position of temporary differences as at the end of the fiscal year to estimate the valuation allowance that it expects to recognize at the end of the fiscal year. This accounting treatment has no effect on the Company's actual ability to utilize deferred tax assets to reduce future cash tax payments. Different judgments could yield different results. See "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Income Taxes" and "Results of Operations - Three months ended February 28, 2019 compared to three months ended February 28, 2018 - Income Taxes".

Revenue Recognition

The Company's contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment.

Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue recognized under the contract will not occur. Any estimates, including any constraints on variable consideration, are evaluated at each reporting period. Judgment is required to determine the fair value of non-cash consideration at contract inception. The Company uses an independent third-party valuator for the fair value of non-cash consideration.

Judgment is required to determine the SSP for each distinct performance obligation. The Company's products and services often have observable SSP when the Company sells a promised product or service separately to similar customers. A contractually stated price or list price for a good or service may be the SSP of that good or service. However, in instances where SSP is not directly observable, the Company determines the SSP by maximizing observable inputs and using an adjusted market assessment approach using information that may include market conditions and other observable inputs from the Company's pricing team, including historical SSP.

Significant judgment is required to determine the estimated customer life used in perpetual license contracts that require access to the Company's proprietary secure network infrastructure to function. The Company uses historical experience regarding the length of the technology upgrade cycle and the expected life of the product to draw this conclusion.

Adoption of Accounting Policies

In May 2014, the Financial Accounting Standards Board (the "FASB") issued ASC 606, a new accounting standard on the topic of revenue contracts, which replaced the prior revenue recognition standard. The new standard amended a number of requirements that an entity must consider in recognizing revenue and requires improved disclosures to help readers of financial statements better understand the nature, amount, timing and uncertainty of revenue recognized. For public entities, the new standard was effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The Company adopted this guidance in the first quarter of fiscal 2019. See Note 2 to the Consolidated Financial Statements for a further discussion on the Company's revenue recognition policy under ASC 606 and the impact to the Company's financial statements.

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued a new accounting standard on the topic of leases. The new 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 will result in the lessee recognizing a right-of-use ("ROU") asset and a corresponding lease liability. 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. Early adoption is permitted. The Company is in the process of determining the impact, and expects that, in the first quarter of fiscal 2020 when the standard becomes effective for the Company, there likely will be a material impact to its balance sheet consisting of the recognition of a ROU asset and a corresponding lease liability. The Company established a cross-functional coordinated team to conduct the implementation of the lease standard, which was responsible for identifying and implementing the appropriate changes to the Company's relevant business processes, systems and controls to support the required accounting and disclosure changes.

In August 2017, the FASB issued a new accounting standard on the topic of derivatives and hedging. The amendments in this update expand and refine the designation and measurement guidance for qualifying hedging relationships and the presentation of those hedge results. The guidance is effective for interim and annual periods beginning after December 15, 2018. The Company will adopt this guidance in the first quarter of fiscal 2020 and does not expect the impact to have a material effect on its results of operations, financial position and disclosures.

Fiscal 2019 Summary Results of Operations

The following table sets forth certain consolidated statements of operations data, as well as certain consolidated balance sheet data, as at and for the fiscal years ended February 28, 2019, February 28, 2018, and February 28, 2017:

	As at and for the Fiscal Years Ended (in millions, except for share and per share amounts)				
	February 28, 2019	February 28, 2018	Change	February 28, 2017	Change
Revenue [1][2]	$ 904	$ 932	$ (28)	$ 1,309	$ (377)
Gross margin [1][2]	698	670	28	617	53
Operating expenses [1][2]	638	387	251	1,798	(1,411)
Investment income (loss), net [2]	17	123	(106)	(27)	150
Income (loss) before income taxes	77	406	(329)	(1,208)	1,614
Provision for (recovery of) income taxes	(16)	1	(17)	(2)	3
Net income (loss)	$ 93	$ 405	$ (312)	$ (1,206)	$ 1,611
Earnings (loss) per share - reported					
Basic	$ 0.17	$ 0.76		$ (2.30)	
Diluted	$ 0.00	$ 0.74		$ (2.30)	
Weighted-average number of shares outstanding (000's)					
Basic	540,477	532,888		525,265	
Diluted [3]	616,467	546,008		525,265	
Total assets	$ 3,929	$ 3,780	$ 149	$ 3,296	$ 484
Total long-term financial liabilities	$ 665	$ 782	$ (117)	$ 591	$ 191

(1) 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.

(2) See "Non-GAAP Financial Measures" for the impact of the Fiscal 2018 Non-GAAP Adjustments on adjusted revenue, adjusted gross margin, adjusted operating expenses and adjusted investment income (loss), net in fiscal 2018.

(3) Diluted earnings (loss) per share on a U.S. GAAP basis for fiscal 2018 and fiscal 2017 does not include the dilutive effect of the Debentures as they would be anti-dilutive. Diluted loss per share on a U.S. GAAP basis for fiscal 2017 does not include the dilutive effect of stock-based compensation as to do so would be anti-dilutive. See Note 12 to the Consolidated Financial Statements for the fiscal year ended February 28, 2019 for calculation of the diluted weighted average number of shares outstanding.

Financial Highlights

The Company had approximately $1.0 billion in cash, cash equivalents and investments as of February 28, 2019.

In fiscal 2019, the Company recognized revenue of $904 million and net income of $93 million, or $0.17 basic earnings per share on a U.S. GAAP basis. The Company incurred a diluted earnings per share of $0.00 on a U.S. GAAP basis. The Company recognized adjusted revenue of $916 million and adjusted net income of $131 million, or adjusted earnings of $0.24 per share, on a non-GAAP basis in fiscal 2019. See also "Non-GAAP Financial Measures".

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 is therefore may not be comparable to similar measures presented by other companies. For the three months ended February 28, 2019, the Company's net cash flow from operating activities was $21 million and capital expenditures were $3 million, resulting in the Company reporting free cash flow of $18 million.

Free cash flow was $20 million for the three months ended February 28, 2019 before taking into account $7 million in cash paid related to restructuring and transition costs, $9 million received in the Panasonic settlement, and $4 million in net cash payments related to business acquisition costs.

For the fiscal year ended February 28, 2019, the Company's net cash provided by operating activities was $100 million and capital expenditures were $17 million, resulting in the Company reporting free cash flow of $83 million.

Free cash flow for the fiscal year ended February 28, 2019 was $95 million before taking into account $41 million in restructuring and transition costs, $27 million recovered from escrow related to the Settlement Funding Agreement with JPMorgan Chase as described in Note 14 to the Consolidated Financial Statements, $9 million in net cash received Panasonic settlement, and $7 million in net payments related to business acquisition costs.

The Company previously stated it anticipated generating positive free cash flow for fiscal 2019 before considering the impact of restructuring and the impact of legal proceedings. The Company reported positive free cash flow before taking into account these items in the amounts noted above.

Debentures Fair Value Adjustment

As previously disclosed, the Company elected the fair value option to account for the 3.75% unsecured convertible debentures (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 fiscal 2019, the fair value of the Debentures decreased by approximately $117 million. For the three months ended February 28, 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 $6 million (pre-tax and after tax) (the "Q4 Fiscal 2019 Debentures Fair Value Adjustment") in the Company's consolidated statements of operations. In fiscal 2019, the Company recorded non-cash income relating to changes in fair value from instrument-specific credit risk of nil in AOCI and non-cash income relating to changes in fair value from non-credit components of $117 million (pre-tax and after tax) (the "Fiscal 2019 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 fourth quarter and fiscal 2019, the Company incurred approximately $3 million and $12 million, respectively, in total pre-tax charges related to this program. During the fourth quarter and fiscal 2019, the Company recovered approximately nil and $1 million, respectively, in total pre-tax recoveries related to the CORE program.

Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018

Consolidated Revenue

Consolidated revenue decreased by $28 million to approximately $904 million in fiscal 2019 from $932 million in fiscal 2018. The decrease was primarily due to a decrease of $75 million in SAF revenue to $46 million from $121 million, a decrease of $51 million in handheld devices revenue to $13 million from $64 million and a decrease of $33 million in Enterprise software and services revenue to $355 million from $388 million, net of increases of $90 million, and $41 million in Licensing, IP and other revenue, and BTS respectively.

The $75 million decrease in SAF, 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 fiscal 2018.

The decrease in handheld devices revenue of $51 million was primarily attributable to the Company's transition from an outsourced handset manufacturing model to the development and licensing of the Company's secure device software. The Company's partners are responsible for all design, manufacturing, sales and customer support for BlackBerry-branded handsets. As a result, the Company's handheld device revenue over the period of transition has consisted solely of sales of the Company's owned handheld inventory, which is not being replenished as handheld devices are no longer produced by or on behalf of the Company and by the release of previously accrued amounts when the Company determines it has no further performance obligations.

The decrease of $33 million in Enterprise software and services revenue is primarily due to the reduction in revenue recognized on perpetual licenses as a result of the adoption of ASC 606.

The increase of $90 million in Licensing, IP and other revenue to $286 million from $196 million is primarily due to higher IP revenue as a result of the Company's patent licensing agreement with Teletry that allows it to sublicense a broad range of the Company's patents to a majority of global smartphone manufacturers and an IP settlement.

The increase of $41 million in BTS to $204 million from $163 million is primarily due to increased revenue from royalty revenue, the Company's agreement with Qualcomm Technologies Inc. ("Qualcomm") to optimize select Qualcomm hardware platforms with BlackBerry QNX software and development seat revenue.

The Company previously stated that it expected year-over-year total software and services revenue growth of between 8% and 10% in fiscal 2019. Total software and services includes Enterprise software and services, BTS, and Licensing, IP and other. Total software and services revenue grew 10% in fiscal 2019 on a year-over-year basis.

The Company previously stated that it expects 80% to 85% of software and services revenue, excluding IP and professional services, will be recurring. Total recurring software and services revenue, excluding IP and professional services, was 83% in fiscal 2019, and 85% for the fourth quarter of fiscal 2019. Total software and services revenue after including perpetual licenses that are now recognized ratably under ASC 606, excluding IP and professional services, was approximately 91% recurring in fiscal 2019 and 93% recurring in the fourth quarter of fiscal 2019.

For fiscal 2020, the Company expects:

- non-GAAP total Company revenue growth of between 23% and 27%;
- double-digit percentage billings growth;
- year-over-year total non-GAAP software and services revenue growth of between 8% and 10%, excluding the revenue growth of BlackBerry Cylance;
- combined Enterprise software and services and BTS revenue growth of between 12% and 16%, with BTS revenue growing faster than Enterprise software and services revenue, and with increased market share;
- BlackBerry Cylance revenue growth of between 25% and 30% over an annualized base of approximately $170 million, with increased market share;
- Licensing, IP and other revenue to decline by approximately 5%; and
- SAF revenue of between $10 million and $20 million.

The Company expects its non-GAAP revenue and non-GAAP earnings to be lower in the first quarter of fiscal 2020 than in the fourth quarter of fiscal 2020.

Consolidated Gross Margin

Consolidated gross margin increased by $28 million to approximately $698 million in fiscal 2019 from $670 million in fiscal 2018. The increase was primarily due to the increases in gross margin associated with Licensing, IP and other revenue and BTS, partially offset by a decline in gross margin associated with SAF and Enterprise software and services.

The increase in gross margin associated with Licensing, IP and other revenue and BTS is primarily due to the reasons discussed above in "Consolidated Revenue". The decrease in gross margin associated with Enterprise software and services is primarily due to the reasons discussed above in "Consolidated Revenue". The decrease in gross margin associated with SAF is primarily due to the decline in SAF revenue discussed above in "Consolidated Revenue", as cost of goods sold associated with SAF were consistent in fiscal 2019 and fiscal 2018 due to certain fixed costs associated with SAF infrastructure.

The Company previously stated that it expected non-GAAP gross margin to be approximately 75% for fiscal 2019. Non-GAAP gross margin was 78% for fiscal 2019.

The Company expects non-GAAP gross margin to be between 74% and 76% for fiscal 2020.

Revenue

Revenue by Geography

Comparative breakdowns of the geographic regions are set forth in the following table:

	For the Fiscal Years Ended (in millions)								
	February 28, 2019			February 28, 2018			Change		
Revenue by Geography									
North America	$	599	66.2%	$	540	58.0%	$	59	10.9 %
Europe, Middle East and Africa		222	24.6%		278	29.8%		(56)	(20.1)%
Latin America		7	0.8%		15	1.6%		(8)	(53.3)%
Asia Pacific		76	8.4%		99	10.6%		(23)	(23.2)%
	$	904	100.0%	$	932	100.0%	$	(28)	(3.0)%

North America Revenue

Revenue in North America was $599 million, or 66.2% of revenue, in fiscal 2019, reflecting an increase of $59 million compared to $540 million, or 58.0% of revenue in fiscal 2018. The increase in North American revenue is primarily due to increases in Licensing, IP and other revenue and BTS revenue due to the reasons discussed above in "Consolidated Revenue", partially offset by a decrease in Enterprise software and services revenue, handheld device revenue and SAF due to the reasons discussed above in "Consolidated Revenue".

Europe, Middle East and Africa Revenue

Revenue in Europe, Middle East and Africa was $222 million, or 24.6% of revenue, in fiscal 2019, reflecting a decrease of $56 million compared to $278 million, or 29.8% of revenue, in fiscal 2018. The decrease in revenue is primarily due to decreases in SAF revenue and handheld device revenue due to the reasons discussed above in "Consolidated Revenue", partially offset by an increase in BTS revenue primarily due to an increase in royalty revenue, sales of development seats and professional services.

Latin America Revenue

Revenue in Latin America was $7 million, or 0.8% of revenue, in fiscal 2019, reflecting a decrease of $8 million compared to $15 million, or 1.6% of revenue, in fiscal 2018. The decrease in revenue is primarily due to a reduction in SAF revenue and a decrease in Enterprise software and services revenue due to the reasons discussed above in "Consolidated Revenue".

Asia Pacific Revenue

Revenue in Asia Pacific was $76 million, or 8.4% of revenue, in fiscal 2019, reflecting a decrease of $23 million compared to $99 million, or 10.6% of revenue, in fiscal 2018. The decrease in revenue is due to a decline in handheld devices revenue and SAF due to the reasons discussed above in "Consolidated Revenue" and a decrease in Licensing, IP and other revenue from the Company's secure device licensing arrangements, partially offset by an increase in BTS revenue primarily due to an increase sales of development seats and professional services.

Revenue by Product and Service

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

	For the Years Ended (in millions)								
	February 28, 2019			February 28, 2018			Change		
Revenue by Product and Service									
Enterprise software and services [(1)(2)]	$	367	40.1%	$	423	43.7%	$	(56)	(13.2)%
BTS		204	22.3%		163	16.9%		41	25.2 %
Licensing, IP and other		286	31.2%		196	20.3%		90	45.9 %
Handheld devices		13	1.4%		64	6.6%		(51)	(79.7)%
SAF		46	5.0%		121	12.5%		(75)	(62.0)%
	$	916	100.0%	$	967	100.0%	$	(51)	(5.3)%

(1) See "Non-GAAP Financial Measures" for the relevant Fiscal 2019 Non-GAAP Adjustments made to enterprise software and services revenue.
(2) See "Non-GAAP Financial Measures" for the relevant Fiscal 2018 Non-GAAP Adjustments made to enterprise software and services revenue.

Enterprise Software and Services

Enterprise software and services revenue includes revenue from the Company's security, productivity, collaboration and end-point management solutions through the BlackBerry Secure platform, which includes BlackBerry UEM, BlackBerry Dynamics, BlackBerry Workspaces and BBM Enterprise, among other products and applications, as well as revenue from the sale of the Company's AtHoc Alert secure networked crisis communications solution, its Secusmart SecuSUITE secure voice and text solution, and professional services from BlackBerry Cybersecurity Services and BlackBerry Cylance.

Enterprise software and services revenue decreased by $56 million, or 13.2%, to $367 million, or 40.1% of revenue, in fiscal 2019, compared to $423 million, or 43.7% of revenue, in fiscal 2018.

The $56 million decrease in enterprise software and services revenue was primarily attributable to the same reasons described above in "Consolidated Revenue" and by a decrease in the non-GAAP adjustment of deferred software revenue acquired in fiscal 2019 versus fiscal 2018.

Excluding the deferred software revenue acquired adjustment, U.S. GAAP enterprise software and services revenue was $355 million, or 39.3% of revenue in fiscal 2019, compared to $388 million, or 41.6% of revenue in fiscal 2018, representing a decrease of $33 million, or 8.5%.

The Company previously stated it expected Enterprise software and services revenue to be lower in fiscal 2019 compared to fiscal 2018 by high single digit to low double-digits on a percentage basis. Enterprise software and services revenue decreased by a low double-digit percentage in fiscal 2019 compared to fiscal 2018.

The Company previously stated it expected Enterprise software and services billings to decline in fiscal 2019 compared to 2018. Enterprise software and services billings declined in fiscal 2019 compared to fiscal 2018 due to the Company's salesforce continuing to adapt to the previously announced change to a subscription sales-based model.

BTS

BTS includes revenue from the Company's QNX CAR Platform and Neutrino Operating System, among other BlackBerry QNX products, as well as revenue from the Company's BlackBerry Radar asset tracking solution, Paratek antenna tuning technology, and Certicom cryptography and key management products.

BTS revenue increased by $41 million, or 25.2%, to $204 million, or 22.3% of revenue, in fiscal 2019, compared to $163 million, or 16.9% of revenue, in fiscal 2018. The increase was primarily due to the same reason described above in "Consolidated Revenue".

The Company previously stated it expected BTS revenue to grow between 20% and 25% in fiscal 2019 compared to 2018. BTS revenue grew by 25% in fiscal 2019 compared to fiscal 2018.

Licensing, IP and Other

Licensing, IP and other includes revenue from the Company's mobility licensing software arrangements, including revenue from licensed hardware sales and intellectual property licensing, and from the Company's BBM Consumer licensing arrangement.

Licensing, IP and other revenue increased by $90 million, or 45.9%, to $286 million, or 31.2% of revenue in fiscal 2019, compared to $196 million, or 20.3% of revenue, in fiscal 2018. The $90 million increase was primarily due to same reasons described above in "Consolidated Revenue".

The Company previously stated that it expected to earn more than $140 million in IP revenue in fiscal 2019. IP revenue in fiscal 2019 was more than $140 million.

Handheld Devices

Handheld devices includes revenue from the sale of the DTEK60 and all prior BlackBerry smartphone models to carriers and distributors, accessories and repair services of handheld devices and the release of previously accrued amounts when the Company determines it has no further performance obligations.

Handheld devices revenue was $13 million, or 1.4% of revenue, in fiscal 2019 compared to $64 million, or 6.6% of revenue, in fiscal 2018, representing a decrease of $51 million, or 79.7%. The $51 million decrease in handheld devices revenue was primarily due to the reasons discussed above in "Consolidated Revenue".

SAF

SAF 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 sold by the Company.

SAF revenue decreased by $75 million, or 62.0%, to $46 million, or 5.0% of revenue, in fiscal 2019, compared to $121 million, or 12.5% of revenue, in fiscal 2018.

The decrease in SAF revenue is primarily due to the reasons discussed above in "Consolidated Revenue".

Operating Expenses

The table below presents a comparison of research and development, selling, marketing and administration, and amortization expense for fiscal 2019 compared to fiscal 2018.

	For the Fiscal Years Ended *(in millions)*					
	February 28, 2019		February 28, 2018		Change	
		% of Revenue		% of Revenue		% of Change
Revenue(1)(2)	$ 904		$ 932		$ (28)	(3.0)%
Operating expenses						
Research and development(1)(2)	219	24.2 %	239	25.6 %	$ (20)	(8.4)%
Selling, marketing and administration(1)(2)	406	44.9 %	467	50.1 %	(61)	(13.1)%
Amortization(1)(2)	136	15.0 %	153	16.4 %	(17)	(11.1)%
Impairment of long-lived assets(2)	—	— %	11	1.2 %	(11)	(100.0)%
Loss on sale, disposal and abandonment of long-lived assets(2)	3	0.3 %	9	1.0 %	(6)	(66.7)%
Debentures fair value adjustment(1)(2)	(117)	(12.9)%	191	20.5 %	(308)	(161.3)%
Arbitration awards and settlements, net(1)(2)	(9)	(1.0)%	(683)	(73.3)%	674	(98.7)%
Total	$ 638	70.5 %	$ 387	41.5 %	$ 251	64.9 %

(1) See "Non-GAAP Financial Measures" for the impact of the Fiscal 2019 Non-GAAP Adjustments on revenue and operating expenses in fiscal 2019.
(2) See "Non-GAAP Financial Measures" for the impact of the Fiscal 2018 Non-GAAP Adjustments on revenue and operating expenses in fiscal 2018.

Operating expenses increased by $251 million, or 64.9%, to $638 million, or 70.5% of revenue in fiscal 2019, compared to $387 million, or 41.5% of revenue, in fiscal 2018. The increase was primarily attributable to the Qualcomm arbitration award in fiscal 2018, partially offset by the difference between the Fiscal 2019 Debentures Fair Value Adjustment and the Fiscal 2018 Debentures Fair Value Adjustment, the Nokia arbitration decision in fiscal 2018, lower restructuring charges, a lower amortization expense, the absence of the Fiscal 2018 LLA Impairment Charge, and a lower bad debt expense.

After giving effect to the relevant Fiscal 2019 Non-GAAP Adjustments and Fiscal 2018 Non-GAAP Adjustments, operating expenses decreased by $46 million, or 7.2% due to the reasons discussed below in "Research and Development Expenses", "Selling, Marketing and Administration Expenses" and "Amortization Expense".

The Company previously stated that it expected its restructuring costs to decrease in fiscal 2019 on a year-over-year basis. Restructuring costs decreased by $67 million in fiscal 2019 on a year-over year basis.

Research and Development Expenses

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

Research and development expenses decreased by $20 million, or 8.4%, to $219 million, or 24.2% of revenue, in fiscal 2019, compared to $239 million, or 25.6% of revenue, in fiscal 2018. After giving effect to the relevant Fiscal 2019 Non-GAAP Adjustments and Fiscal 2018 Non-GAAP Adjustments, research and development expenses decreased by $17 million, or 7.7%. The decrease was primarily attributable to a decrease in salaries and benefits and a reduction in outsourcing costs compared to fiscal 2018, partially offset by an increase in facilities costs.

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 decreased by $61 million, or 13.1%, to $406 million, or 44.9% of revenue, in fiscal 2019 compared to $467 million in fiscal 2018, or 50.1% of revenue. After giving effect to the relevant Fiscal 2019 Non-GAAP Adjustments and Fiscal 2018 Non-GAAP Adjustments, selling, marketing and administration expenses decreased by $23 million, or 6.4%. The decrease was primarily attributable to a decrease in salaries and benefits, a decrease in bad debt expense, a favourable change in the fair value of the deferred share unit liability, and a decrease in professional services compared to fiscal 2018.

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 fiscal 2019 compared to fiscal 2018. Intangible assets are comprised of patents, licenses and acquired technology.

For the Fiscal Years Ended
(in millions)

	Included in Amortization			**Included in Cost of sales**		
	February 28, 2019	February 28, 2018	Change	February 28, 2019	February 28, 2018	Change
Property, plant and equipment	$ 14	$ 18	$ (4)	$ 6	$ 18	$ (12)
Intangible assets	122	135	(13)	7	6	1
Total	$ 136	$ 153	$ (17)	$ 13	$ 24	$ (11)

Amortization

Amortization expense relating to certain property, plant and equipment and intangible assets decreased by $17 million to $136 million for fiscal 2019, compared to $153 million for fiscal 2018. The decrease in in amortization expense primarily reflects the full depreciation of certain assets.

After giving effect to the relevant Fiscal 2019 Non-GAAP Adjustments and Fiscal 2018 Non-GAAP Adjustments, amortization decreased by $4 million.

Cost of sales

Amortization expense relating to certain property, plant and equipment and intangible assets employed in the Company's service operations and BlackBerry service operations decreased by $11 million to $13 million for fiscal 2019, compared to $24 million for fiscal 2018. This decrease primarily reflects the full depreciation of certain assets, partially offset by a portion of the amortization of patents being classified as cost of goods sold due to the Company's intellectual property licensing arrangements.

Investment Income (Loss), Net

Investment income (loss), net, which includes the interest expense from the Debentures, decreased by $106 million to income of $17 million in fiscal 2019, from income of $123 million in fiscal 2018. The decrease is primarily attributable to the interest received from the Qualcomm arbitration award and the interest charged in the Nokia arbitration result in fiscal 2018. See "Financial Condition - Liquidity and Capital Resources".

After giving effect to the relevant Fiscal 2018 Non-GAAP Adjustments, non-GAAP investment income increased by $17 million. The increase was due to a higher yield on the Company's average cash and investment balances.

Income Taxes

For fiscal 2019, the Company's net effective income tax recovery rate was approximately 21%, compared to approximately 0% for the prior fiscal year. The Company's net effective income recovery tax rate reflects the fact that the Company has a significant valuation allowance against its deferred tax assets, and in particular, the net change in fair value of the Debentures, and the reduction in the US tax rate and other changes from the United States enacted tax reform legislation through the Tax Cuts and Jobs Act, amongst other items, was offset by a corresponding adjustment of the valuation allowance. The Company's net effective income tax recovery rate also reflects the geographic mix of earnings in jurisdictions with different income tax rates.

After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments, the Company's non-GAAP net effective income tax rate was approximately 4%, compared to approximately 0% 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

The Company's net income for fiscal 2019 was $93 million, reflecting a decrease in net income of $312 million compared to net income of $405 million in fiscal 2018, primarily due to the Qualcomm arbitration award in fiscal 2018, offset by the difference between the Fiscal 2019 Debentures Fair Value Adjustment and Fiscal 2018 Debentures Fair Value Adjustment, the Nokia arbitration decision, a decrease in operating expenses as described above in "Operating Expenses" and the absence of the LLA Impairment Charge. After giving effect to the relevant Fiscal 2019 Non-GAAP Adjustments and Fiscal 2018 Non-GAAP Adjustments, the Company's non-GAAP net income for fiscal 2019 was $131 million compared to $77 million in fiscal 2018, reflecting an increase in non-GAAP net income of $54 million, primarily due to a reduction in operating expenditures and an increase in the Company's gross margin and investment income (loss).

Basic earnings per share on a U.S. GAAP basis was $0.17 and diluted earnings per share on a U.S. GAAP basis was $0.00 in fiscal 2019, an decrease in earnings per share of 77.6% and 100.0%, respectively, compared to basic earnings per share on a U.S. GAAP basis of $0.76 and diluted earnings per share on a U.S. GAAP basis of $0.74 in fiscal 2018.

The weighted average number of shares outstanding was 540 million and 616 million for basic and diluted earnings per share, respectively, for the fiscal year ended February 28, 2019. The weighted average number of shares outstanding was 533 million and 546 million for basic and diluted earnings per share, respectively, for the fiscal year ended February 28, 2018.

The Company previously stated its expectations of achieving positive non-GAAP earnings per share for fiscal 2019. Non-GAAP earnings per share were $0.24 in fiscal 2019.

The Company expects the profitability of BlackBerry Cylance to improve through fiscal 2020 and expects BlackBerry Cylance to be accretive to non-GAAP net income on a full-year basis beginning in fiscal 2021.

Common Shares Outstanding

On April 1, 2019, there were 547 million voting common shares, options to purchase 8 million voting common shares, 21 million restricted share units and 0.8 million deferred share units outstanding. In addition, 60.5 million common shares are issuable upon conversion in full of the Debentures.

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

Results of Operations - Three months ended February 28, 2019 compared to the three months ended February 28, 2018

The following table sets forth certain unaudited consolidated statements of operations data, which is expressed in millions of dollars, except for share and per share amounts and as a percentage of revenue, for the three months ended February 28, 2019 and February 28, 2018:

	For the Three Months Ended (in millions, except for share and per share amounts)				
	February 28, 2019		February 28, 2018		Change
Revenue (1)(2)	255	100.0 %	233	100.0 %	22
Gross margin (1)(2)	206	80.8 %	177	76.0 %	29
Operating expenses (1)(2)	178	69.8 %	194	83.3 %	(16)
Investment income, net (1)	4	1.6 %	3	1.3 %	1
Income (loss) before income taxes	32	12.5 %	(14)	(6.0)%	46
Recovery of income taxes	(19)	(7.5)%	(4)	(1.7)%	(15)
Net income (loss)	$ 51	20.0 %	$ (10)	(4.3)%	$ 61
Earnings (loss) per share - reported					
Basic	$ 0.09		$ (0.02)		$ 0.11
Diluted (3)	$ 0.08		$ (0.06)		$ 0.14
Weighted-average number of shares outstanding (000's)					
Basic	547,272		536,594		
Diluted (3)	615,593		597,094		

(1) See "Non-GAAP Financial Measures" for the impact of the Q4 Fiscal 2019 Non-GAAP Adjustments on revenue, gross margin, operating expenses, and investment income (loss), net in the fourth quarter of fiscal 2019.

(2) See "Non-GAAP Financial Measures" for the impact of the Q4 Fiscal 2018 Non-GAAP Adjustments on revenue, gross margin, operating expenses and investment income, net in the fourth quarter of fiscal 2018.

(3) Diluted loss per share on a U.S. GAAP basis in the fourth quarter of 2018 does not include the dilutive effect of stock-based compensation as to do so would be anti-dilutive.

Consolidated Revenue

Consolidated revenue increased by $22 million to approximately $255 million in the fourth quarter of fiscal 2019 from $233 million in the fourth quarter of fiscal 2018. The increase was primarily due to an increase of $41 million in Licensing, IP and other revenue to $99 million from $58 million and an increase of $9 million in BTS revenue to $55 million from $46 million, partially offset by an decrease of $16 million in Enterprise software and services revenue to $92 million from $108 million, a decrease of $10 million in SAF revenue to $9 million from $19 million and a decrease of $2 million in handheld devices revenue to nil from $2 million.

The increase in Licensing, IP and other revenue of $41 million was due to higher IP revenue from the Company's patent licensing agreement with Teletry that allows it to sublicense a broad range of the Company's patents to a majority of global smartphone manufacturers, partially offset by a decrease in revenue from BBM Consumer due to a decrease in infrastructure hosting revenue.

The increase in BTS revenue was primarily due to increased development seats revenue and increased professional services revenue.

The decrease in Enterprise software and services revenue of $16 million is primarily due to a lower number of perpetual licenses sold and a reduction in revenue recognized on perpetual licenses as a result of the adoption of ASC 606.

The decrease in SAF revenue of $10 million, which is generated from users of BlackBerry 7 and prior BlackBerry operating systems, was primarily attributable to a lower number of BlackBerry 7 users and lower revenue from those users, compared to the fourth quarter of fiscal 2018.

The decrease in hardware and other revenue of $2 million was primarily attributable to the Company's transition from an outsourced handset manufacturing model to the development and licensing of the Company's secure device software. The Company's partners are responsible for all design, manufacturing, sales and customer support for BlackBerry-branded handsets. As a result, the Company's handheld device revenue over the period of transition has consisted solely of sales of the Company's owned handheld inventory, which is not being replenished as handheld devices are no longer produced by or on behalf of the Company, followed solely by the release of previously accrued amounts when the Company determines it has no further performance obligations.

Consolidated Gross Margin

Consolidated gross margin increased by $29 million to approximately $206 million in the fourth quarter of fiscal 2019 from $177 million in the fourth quarter of fiscal 2018. The increase was primarily due to increases in gross margin in Licensing, IP and other and BTS, partially offset by a decline in gross margin associated with Enterprise software and services and SAF.

The increases in gross margin associated with Licensing, IP and other and BTS were primarily due to the reasons discussed above in "Consolidated Revenue". The decrease in gross margin associated with SAF is primarily due to the decline in SAF revenue discussed above in "Consolidated Revenue", as cost of goods sold associated with SAF were consistent in the fourth quarter of fiscal 2019 and the fourth quarter of fiscal 2018 due to certain fixed costs associated with SAF infrastructure. The decrease in gross margin associated with Enterprise software and services was primarily due to the reasons discussed above in "Consolidated Revenue".

Revenue

Revenue by Geography

Comparative breakdowns of the geographic regions are set forth in the following table:

	For the Three Months Ended *(in millions)*					
	February 28, 2019		February 28, 2018		Change	
Revenue by Geography						
North America	$ 176	69.0%	$ 147	63.1%	$ 29	19.7 %
Europe, Middle East and Africa	61	23.9%	63	27.0%	(2)	(3.2)%
Latin America	1	0.4%	4	1.7%	(3)	(75.0)%
Asia Pacific	17	6.7%	19	8.2%	(2)	(10.5)%
	$ 255	100.0%	$ 233	100.0%	$ 22	9.4 %

North America Revenue

Revenue in North America was $176 million, or 69.0% of revenue, in the fourth quarter of fiscal 2019, reflecting an increase of $29 million compared to $147 million, or 63.1% of revenue, in the fourth quarter of fiscal 2018. Revenue in North America increased compared to the fourth quarter of fiscal 2018 primarily from an increase in Licensing, IP and other revenue due to the reasons discussed above in "Consolidated Revenue", partially offset by a decrease in Enterprise software and services due to the reasons discussed above in "Consolidated Revenue".

Europe, Middle East and Africa Revenue

Revenue in Europe, Middle East and Africa was $61 million or 23.9% of revenue in the fourth quarter of fiscal 2019, reflecting a decrease of $2 million compared to $63 million or 27.0% of revenue in the fourth quarter of fiscal 2018. The decrease in revenue is due to decreased handheld devices and SAF revenue due to the reasons discussed above in "Consolidated Revenue", partially offset by increases in Enterprise software and services and BTS revenue for the reasons discussed above in "Consolidated Revenue".

Latin America Revenue

Revenue in Latin America was $1 million or 0.4% of revenue in the fourth quarter of fiscal 2019, reflecting a decrease of $3 million compared to $4 million or 1.7% of revenue in the fourth quarter of fiscal 2018. The decrease in revenue is primarily due to a decrease in Enterprise software and services revenue due to the reasons discussed above in "Consolidated Revenue".

Asia Pacific Revenue

Revenue in Asia Pacific was $17 million or 6.7% of revenue in the fourth quarter of fiscal 2019, reflecting a decrease of $2 million compared to $19 million or 8.2% of revenue in the fourth quarter of fiscal 2018. The decrease in revenue is due to a decrease in Licensing, IP and other revenue from the Company's secure device licensing arrangements and a decrease in SAF revenue due to the reasons discussed above in "Consolidated Revenue".

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)*								
	February 28, 2019			February 28, 2018			Change		
Revenue by Product and Service									
Enterprise software and services [(1)(2)]	$	94	36.6%	$	114	47.8%	$	(20)	(17.5)%
BTS		55	21.4%		46	19.2%		9	19.6 %
Licensing, IP and other		99	38.5%		58	24.3%		41	70.7 %
Handheld devices		—	—%		2	0.8%		(2)	(100.0)%
SAF		9	3.5%		19	7.9%		(10)	(52.6)%
	$	257	100.0%	$	239	100.0%	$	18	7.5 %

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(1) See "Non-GAAP Financial Measures" for the relevant Q4 Fiscal 2019 Non-GAAP Adjustments made to Enterprise software and services revenue.
(2) See "Non-GAAP Financial Measures" for the relevant Q4 Fiscal 2018 Non-GAAP Adjustments made to Enterprise software and services revenue.

Enterprise Software and Services

Enterprise software and services revenue was $94 million (including $3 million related to BlackBerry Cylance), or 36.6% of revenue, in the fourth quarter of fiscal 2019, a decrease of $20 million compared to revenue of $114 million, or 47.8% of revenue, in the fourth quarter of fiscal 2018. Enterprise software and services non-GAAP revenue decreased due to the reasons described above in "Consolidated Revenue" and a decrease of $4 million in the non-GAAP adjustment of deferred software revenue acquired to $2 million in the fourth quarter of fiscal 2019 from $6 million in the fourth quarter of fiscal 2018.

Excluding the deferred software revenue acquired adjustment described under "Non-GAAP Financial Measures", U.S. GAAP Enterprise software and services revenue was $92 million (including $2 million related to BlackBerry Cylance), or 36.1% of revenue, in the fourth quarter of fiscal 2019, compared to $108 million, or 46.4% of revenue, in the fourth quarter of fiscal 2018, representing a decrease of $16 million, or 14.8%, due to the reasons described above in "Consolidated Revenue".

The Company previously stated that it expected Enterprise software and services revenue to grow sequentially in the fourth quarter of fiscal 2019. Enterprise software and services revenue declined by 4% in the fourth quarter of fiscal 2019, compared to the third quarter of fiscal 2019 due to non-UEM revenue being lower than expected as a result of delays in government procurement processes.

The Company previously stated that it expected Enterprise software and services billings to grow sequentially in the fourth quarter of fiscal 2019. Enterprise software and services billings grew in the fourth quarter of fiscal 2019, compared to the third quarter of fiscal 2019.

BTS

BTS revenue increased to $55 million, or 21.4% of revenue, in the fourth quarter of fiscal 2019, compared to $46 million, or 19.2% of revenue, in the fourth quarter of fiscal 2018 due to the reasons described above in "Consolidated Revenue".

Licensing, IP and Other

Licensing, IP and other revenue was $99 million, or 38.5% of revenue, in the fourth quarter of fiscal 2019, compared to $58 million, or 24.3% of revenue, in the fourth quarter of fiscal 2018, representing an increase of $41 million, or 70.7%. The $41 million increase was due to the reasons described above in "Consolidated Revenue".

The Company previously stated that it expects to generate recurring Licensing, IP and other revenue of between $40 million and $45 million per quarter. Recurring Licensing, IP and other revenue was greater than $45 million in the fourth quarter of fiscal 2019.

Handheld Devices

Handheld devices includes revenue from the sale of the Company's remaining inventory of legacy smartphones and smartphone accessories, as well as non-warranty repair services and the release of previously accrued amounts when the Company determines it has no further performance obligations. Handheld device revenue was nil, or 0.0% of revenue, in the fourth quarter of fiscal 2019, compared to $2 million, or 0.8% of revenue, in the fourth quarter of fiscal 2018, representing decrease of $2 million, or 100.0%. The $2 million decrease in handheld devices revenue was primarily due to the reasons discussed above in "Consolidated Revenue".

SAF

SAF revenue decreased by $10 million, or 52.6%, to $9 million, or 3.5% of revenue, in the fourth quarter of fiscal 2019, compared to $19 million, or 7.9% of revenue, in the fourth quarter of fiscal 2018. The decrease was due to the reasons discussed above in "Consolidated Revenue".

Operating Expenses

The table below presents a comparison of research and development, selling, marketing and administration, and amortization expenses for the quarter ended February 28, 2019, compared to the quarter ended November 30, 2018 and the quarter ended February 28, 2018. The Company believes it is also meaningful to provide a sequential comparison between the fourth quarter of fiscal 2019 and the third quarter of fiscal 2019.

	For the Three Months Ended (in millions)					
	February 28, 2019		November 30, 2018		February 28, 2018	
		% of Revenue		% of Revenue		% of Revenue
Revenue(1)(2)(3)	$ 255		$ 226		$ 233	
Operating expenses						
Research and development(1)(2)(3)	52	20.4 %	55	24.3 %	58	24.9 %
Selling, marketing and administration(1)(2)(3)	109	42.7 %	91	40.3 %	131	56.2 %
Amortization(1)(2)(3)	31	12.2 %	33	14.6 %	37	15.9 %
Loss on sale, disposal and abandonment of long-lived assets(3)	1	0.4 %	2	0.9 %	2	0.9 %
Debentures fair value adjustment(1)(2)(3)	(6)	(2.4)%	(69)	(30.5)%	(34)	(14.6)%
Arbitration awards and settlements, net(1)	(9)	(3.5)%	—	— %	—	— %
Total	$ 178	69.8 %	$ 112	49.6 %	$ 194	83.3 %

(1) See "Non-GAAP Financial Measures" for the impact of the Q4 Fiscal 2019 Non-GAAP Adjustments on revenue and operating expenses in the fourth quarter of fiscal 2019.

(2) In the third quarter of fiscal 2019, the Company had software deferred revenue acquired but not recognized due to business combination accounting rules of approximately $2 million, and also recorded a non-cash income associated with a change in the fair value of the Debentures of approximately $69 million (the "Q3 Fiscal 2019 Debentures Fair Value Adjustment"); RAP charges of approximately $1 million in selling, marketing and administration expenses; stock compensation expense of approximately $3 million and $11 million in research and development and selling, marketing and administration expenses, respectively; amortization of intangible assets acquired through business combinations of approximately $20 million in amortization expense; and business acquisition and integration costs incurred through business combinations of approximately $5 million in selling, marketing and administration expense (collectively the "Q3 Fiscal 2019 Non-GAAP Adjustments").

(3) See "Non-GAAP Financial Measures" for the impact of the Q4 Fiscal 2018 Non-GAAP Adjustments on revenue and operating expenses in the fourth quarter of fiscal 2018.

Operating expenses increased by $66 million, or 58.9%, to $178 million, or 69.8% of revenue, in the fourth quarter of fiscal 2019, compared to $112 million, or 49.6% of revenue, in the third quarter of fiscal 2019. The increase was primarily attributable to the difference between the Q4 Fiscal 2019 Debentures Fair Value Adjustment and Q3 Fiscal 2019 Debentures Fair Value Adjustment and an increase in professional service fees partially offset by a settlement received in the fourth quarter of fiscal 2019.

After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments and Q3 Fiscal 2019 Non-GAAP Adjustments, operating expenses increased by $11 million, or 7.8%. The increase was primarily attributable to the addition of Cylance's operating expenses for approximately one week in the fourth quarter of fiscal 2019.

Operating expenses decreased by $16 million, or 8.2%, to $178 million, or 69.8% of revenue, in the fourth quarter of fiscal 2019, compared to $194 million, or 83.3% of revenue, in the fourth quarter of fiscal 2018. The decrease was primarily attributable to a decrease in restructuring charges, a settlement received in the fourth quarter of fiscal 2019, a decrease in salaries and benefits and favourable foreign currency translation partially offset by the difference between the Q4 Fiscal 2019 Debentures Fair Value Adjustment and Q4 Fiscal 2018 Debentures Fair Value Adjustment.

After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments and Q4 Fiscal 2018 Non-GAAP Adjustments, operating expenses decreased by $17 million, or 10.1% due the reasons discussed below in "Research and Development Expenses", "Selling, Marketing and Administrative Expenses" and "Amortization Expense".

Research and Development Expense

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

Research and development expenses decreased by $6 million, or 10.3% to $52 million in the fourth quarter of fiscal 2019 compared to $58 million in the fourth quarter of fiscal 2018. After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments and Q4 Fiscal 2018 Non-GAAP Adjustments, research and development expenses decreased by $6 million, or 10.9%. This decrease was primarily attributable to decreased salaries and benefits costs.

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 decreased by $22 million, or 16.8%, to $109 million in the fourth quarter of fiscal 2019 compared to $131 million in the fourth quarter of fiscal 2018. After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments and Q4 Fiscal 2018 Non-GAAP Adjustments, selling, marketing and administration expenses decreased by $10 million, or 10.1%. This decrease was primarily attributable to favourable foreign exchange translation, a reduction in salaries and benefits, and a decrease in professional services expense.

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 quarter ended February 28, 2019 compared to the quarter ended February 28, 2018. 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**		
	February 28, 2019	February 28, 2018	Change	February 28, 2019	February 28, 2018	Change
Property, plant and equipment	$ 4	$ 5	$ (1)	$ 1	$ 2	$ (1)
Intangible assets	27	32	(5)	1	—	1
Total	$ 31	$ 37	$ (6)	$ 2	$ 2	$ —

Amortization

Amortization expense relating to certain property, plant and equipment and certain intangible assets decreased by $6 million to $31 million for the fourth quarter of fiscal 2019 compared to $37 million for the fourth quarter of fiscal 2018. The decrease in amortization expense reflects the full depreciation of certain assets.

After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments and Q4 Fiscal 2018 Non-GAAP Adjustments, amortization decreased by $2 million.

Cost of sales

Amortization expense relating to certain property, plant and equipment and certain intangible assets employed in the Company's service operations were $2 million in the fourth quarter of fiscal 2019 and consistent with the fourth quarter of fiscal 2018.

Investment Income (Loss), Net

Investment income (loss), net, which includes the interest expense from the Debentures, increased by $1 million to $4 million in the fourth quarter of fiscal 2019, compared to $3 million in the fourth quarter of fiscal 2018. The increase in investment income was due to a higher yield on the Company’s average cash and investment balances.

After giving effect to the relevant Q4 Fiscal 2018 Non-GAAP Adjustments, non-GAAP investment income increased by $2 million. The increase was due to a higher yield on the Company’s average cash and investment balances.

Income Taxes

For the fourth quarter of fiscal 2019, the Company’s net effective income tax recovery rate was approximately 59%, compared to approximately 29% for the same period in the prior fiscal year. The Company’s income tax recovery rate reflects the fact that the Company has a significant valuation allowance against its deferred tax assets, and in particular, the net change in fair value of the Debentures, the reduction in the U.S. tax rate and other changes from the United States enacted tax reform legislation through the Tax Cuts and Jobs Act, amongst other items, was offset by a corresponding adjustment of the valuation allowance. The Company’s net effective income tax recovery rate also reflects the geographic mix of earnings in jurisdictions with different income tax rates.

After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments, the Company’s non-GAAP net effective income tax rate was approximately 3%, compared to a net effective income tax recovery rate of approximately 29% 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 income for the fourth quarter of fiscal 2019 was $51 million, or $0.09 basic earnings per share and $0.08 diluted earnings per share on a U.S. GAAP basis, reflecting an increase in net income of $61 million compared to a net loss of $10 million, or $0.02 basic loss per share and $0.06 diluted loss per share, in the fourth quarter of fiscal 2018. After giving effect to the relevant Q4 Fiscal 2019 Non-GAAP Adjustments and Q4 Fiscal 2018 Non-GAAP Adjustments, the Company’s non-GAAP net income was $60 million in the fourth quarter of fiscal 2019 compared to $25 million in the fourth quarter of fiscal 2018, reflecting an increase in non-GAAP net income of $35 million due to an increase in revenue, a decrease in operating expenditures and an increase in gross margin.

The weighted average number of shares outstanding was 547 million common shares for basic earnings per share and 616 million common shares for diluted earnings per share for the fourth quarter of fiscal 2019. The weighted average number of shares outstanding was 537 million common shares for basic loss per share and 597 million common shares for diluted loss per share for the fourth quarter of fiscal 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 February 28, 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.

(in millions, except per share data)

	Fiscal Year 2019				Fiscal Year 2018			
	Fourth Quarter	Third Quarter	Second Quarter	First Quarter	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
Revenue	$ 255	$ 226	$ 210	$ 213	$ 233	$ 226	$ 238	$ 235
Gross margin	206	170	161	161	177	168	175	150
Operating expenses	178	112	122	226	194	426	153	(386)
Income (loss) before income taxes	32	60	44	(59)	(14)	(275)	23	672
Provision for (recovery of) income taxes	(19)	1	1	1	(4)	—	4	1
Net income (loss)	$ 51	$ 59	$ 43	$ (60)	$ (10)	$ (275)	$ 19	$ 671
Earnings (loss) per share								
Basic earnings (loss) per share	$ 0.09	$ 0.11	$ 0.08	$ (0.11)	$ (0.02)	$ (0.52)	$ 0.04	$ 1.26
Diluted earnings (loss) per share	$ 0.08	$ (0.01)	$ (0.04)	$ (0.11)	$ (0.06)	$ (0.52)	$ (0.07)	$ 1.23
Research and development	$ 52	$ 55	$ 51	$ 61	$ 58	$ 60	$ 60	$ 61
Selling, marketing and administration	109	91	106	100	131	118	110	109
Amortization	31	33	35	37	37	37	39	40
Impairment of long-lived assets	—	—	—	—	—	—	11	—
Impairment of goodwill	—	—	—	—	—	—	—	—
Loss on sale, disposal and abandonment of long-lived assets	1	2	—	—	2	2	3	1
Debentures fair value adjustment	(6)	(69)	(70)	28	(34)	77	(70)	218
Arbitration awards and settlements, net	(9)	—	—	—	—	132	—	(815)
Operating expenses	$ 178	$ 112	$ 122	$ 226	$ 194	$ 426	$ 153	$ (386)

Financial Condition

Liquidity and Capital Resources

Cash, cash equivalents, and investments decreased by $1.35 billion to $1.00 billion as at February 28, 2019 from $2.35 billion as at February 28, 2018, primarily as a result of the Cylance acquisition. The majority of the Company's cash, cash equivalents, and investments are denominated in U.S. dollars as at February 28, 2019.

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

	As at *(in millions)*		
	February 28, 2019	February 28, 2018	Change
Cash and cash equivalents	$ 548	$ 816	$ (268)
Restricted cash	34	39	(5)
Short-term investments	368	1,443	(1,075)
Long-term investments	55	55	—
Cash, cash equivalents, and investments	$ 1,005	$ 2,353	$ (1,348)

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

	As at *(in millions)*		
	February 28, 2019	February 28, 2018	Change
Current assets	$ 1,194	$ 2,545	$ (1,351)
Current liabilities	471	411	60
Working capital	$ 723	$ 2,134	$ (1,411)

Current Assets

The decrease in current assets of $1.35 billion at the end of fiscal 2019 from the end of fiscal 2018 was primarily due to decreases in short term investments of $1.08 billion, cash and cash equivalents of $268 million, other receivables of $52 million and income taxes of $17 million, partially offset by increases in accounts receivable, net of $43 million, and other current assets of $18 million.

At February 28, 2019, accounts receivable was $194 million, an increase of $43 million from February 28, 2018. The increase was primarily due to the acquired trade receivables from the Cylance acquisition and higher revenue recognized in the fourth quarter of fiscal 2019, partially offset by a decrease in days sales outstanding to approximately 58 days in the fourth quarter of fiscal 2019 from approximately 61 days in the fourth quarter of 2018.

At February 28, 2019, other receivables decreased by $52 million to $19 million compared to $71 million as at February 28, 2018. The decrease was primarily due to funds recovered from escrow relating to the Good Technology Corporation litigation.

At February 28, 2019, other current assets was $56 million, an increase of $18 million from February 28, 2018. The increase in in other current assets was primarily due to the increase in deferred contract acquisition costs as a result of the adoption of ASC 606 and to the acquired other current assets from the Cylance acquisition.

At February 28, 2019, income taxes receivable was $9 million, a decrease of $17 million from February 28, 2018. The decrease in income taxes receivable was due to refunds received in 2019.

Current Liabilities

The increase in current liabilities of $60 million at the end of fiscal 2019 from the end of fiscal 2018 was primarily due to an increase in deferred revenue of $72 million and accounts payable of $2 million, partially offset by a decrease in accrued liabilities of $13 million.

Deferred revenue was $214 million, which reflects an increase of $72 million compared to February 28, 2018 that was primarily attributable to acquired deferred revenue from the Cylance acquisition and to the adoption of ASC 606.

As at February 28, 2019, accounts payable were $48 million, reflecting an increase of $2 million from February 28, 2018, which was primarily attributable to acquired accounts payable from the Cylance acquisition, partially offset by lower operating expenses as described above under "Results of Operations - Fiscal year ended February 28, 2019 compared to fiscal year ended February 28, 2018 - Operating Expenses ".

Accrued liabilities were $192 million, reflecting a decrease of $13 million compared to February 28, 2018, which was primarily attributed to the decrease in vendor liabilities and a lower variable incentive plan accrual compared to fiscal 2018.

Cash flows for the fiscal year ended February 28, 2019 compared to the fiscal year ended February 28, 2018 were as follows:

	For the Fiscal Years Ended (in millions)		
	February 28, 2019	February 28, 2018	Change
Net cash flows provided by (used in):			
Operating activities	$ 100	$ 704	$ (604)
Investing activities	(375)	(630)	255
Financing activities	5	(10)	15
Effect of foreign exchange gain (loss) on cash and cash equivalents	(3)	6	(9)
Net increase (decrease) in cash and cash equivalents	$ (273)	$ 70	$ (343)

Operating Activities

The decrease in net cash flows provided by operating activities of $604 million primarily reflects the impact of the Qualcomm and Nokia arbitrations in fiscal 2018, partially offset by net changes in working capital and improved gross margin.

Investing Activities

During the fiscal year ended February 28, 2019, cash flows used in investing activities were $375 million and included cash flows used in the Cylance acquisition of $1.40 billion, intangible asset additions of $32 million and acquisitions of property, plant and equipment of $17 million, partially offset by proceeds on sale of short-term and long-term investments, net of the proceeds on sale or maturity of $1.08 billion and property, plant and equipment of $1 million. During fiscal 2018, cash flows used in investing activities were $630 million and included cash flows of $588 million used in transactions involving the acquisition of short-term and long-term investments, intangible asset additions of $30 million and acquisitions of property, plant and equipment of $15 million, partially offset by proceeds on the sale of property, plant and equipment of $3 million.

Financing Activities

The increase in cash flows provided by financing activities was $15 million for fiscal 2019 due to the common shares repurchases made under the normal course issuer bid discussed under "Business Overview - Normal Course Issuer Bid" above in fiscal 2018.

Aggregate Contractual Obligations

The following table sets out aggregate information about the Company's contractual obligations and the periods in which payments are due as at February 28, 2019:

	(in millions)				
	Total	Less than One Year	One to Three Years	Four to Five Years	Greater than Five Years
Operating lease obligations	$ 201	$ 37	$ 56	$ 51	$ 57
Purchase obligations and commitments	202	82	50	70	—
Long-term debt interest and principal payments	39	23	16	—	—
Total	$ 442	$ 142	$ 122	$ 121	$ 57

Purchase obligations and commitments amounted to approximately $442 million as at February 28, 2019, including future interest payments of $39 million on the Debentures and operating lease obligations of $201 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 February 28, 2019 increased by approximately $137 million as compared to the February 28, 2018 balance of approximately $305 million, which was primarily attributable to an increase in operating lease commitments and purchase commitments due to the Cylance acquisition, partially offset by decreases in non-Cylance purchase obligations and interest payments on the Debentures.

Debenture Financing and Other Funding Sources

See Note 10 to the Consolidated Financial Statements for a description of the Debentures.

The Company has $31 million in collateralized outstanding letters of credit in support of certain leasing arrangements entered into in the ordinary course of business. See Note 3 to the Consolidated Financial Statements for further information concerning the Company's restricted cash.

Cash, cash equivalents, and investments were approximately $1.00 billion as at February 28, 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 (the "U.S. Exchange Act"), 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 provision 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 February 28, 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 14 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 fiscal 2019 was 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, certain operating costs were incurred primarily in Canadian dollars, but were also incurred in U.S. dollars, euros and British pounds. At February 28, 2019, approximately 9% of cash and cash equivalents, 29% of accounts receivables and 4% of accounts payable were denominated in foreign currencies (February 28, 2018 – 9%, 35% and 6%, respectively). These foreign currencies primarily include the Canadian dollar, euro and British pound. As part of its risk management strategy, 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 5 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 the 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 February 28, 2019 was $25 million (February 28, 2018 - $24 million). There was one customer that comprised more than 10% of accounts receivable as at February 28, 2019 (February 28, 2018 - no customer that comprised more than 10%). During fiscal 2019, the percentage of the Company's receivable balance that was past due decreased by 5.8% compared to the fourth quarter of fiscal 2018. 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 from its carrier and distributor partners 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 was one customer that comprised more than 10% of the Company's revenue in fiscal 2019 (fiscal 2018 - no customer; fiscal 2017 - no customer).

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 the Company's ability and intent to hold the debt securities to maturity. During fiscal 2019, the Company did not record any other-than-temporary impairment charges related to certain cost-based investments (fiscal 2018 - nil, fiscal 2017 - $8 million).

See Note 5 to the Consolidated Financial Statements for additional information regarding the Company's credit risk as it pertains to its foreign exchange derivative counterparties.

Disclosure Controls and Procedures and Internal Controls

Disclosure Controls and Procedures

As of February 28, 2019, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and its Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the U.S. Exchange Act. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that, as of such date, the Company's disclosure controls and procedures were effective to give reasonable assurance that the information required to be disclosed by the Company in reports that it files or submits under the U.S. Exchange Act is (i) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) and 15d-15(f) under the U.S. Exchange Act as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Board, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- provide reasonable assurance regarding the prevention or timely detection of unauthorized acquisitions, use or dispositions of the Company's assets that could have a material effect on the Company's financial statements.

On February 21, 2019, the Company completed the acquisition of Cylance, which is included in the fiscal 2019 consolidated financial statements of the Company and constituted 2% and (3)% of total and net assets of the Company, respectively, as of February 28, 2019, and less than 1% of revenue and (6)% of income before income taxes for the year then ended. In evaluating the effectiveness of the Company's internal controls over financial reporting, management has excluded Cylance from its assessment of internal controls over financial reporting as of February 28, 2019 because Cylance was acquired by the Company late in fiscal 2019.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's internal control over financial reporting as of February 28, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its Internal Control-Integrated Framework (2013). Based on this assessment, management believes that, as of February 28, 2019, the Company's internal control over financial reporting was effective.

The Company's independent auditors have issued an audit report on the Company's internal control over financial reporting. This report is included with the Consolidated Financial Statements.

Changes in Internal Control Over Financial Reporting

During the three months ended February 28, 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.

Exhibit 23.1

CONSENT OF
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements [Form S-8 Nos. 333-85294, 333-100684, 333-150470, 333-177149, 333-189880, 333-192986, 333-192987, 333-197636, 333-206480, 333-209525, 333-220153, 333-229799, 333-230079] pertaining to the equity compensation and benefits plans of BlackBerry Limited of our reports dated April 5, 2019, with respect to the consolidated financial statements of BlackBerry Limited and the effectiveness of internal control over financial reporting of BlackBerry Limited, included in this Annual Report (Form 40-F) for the year ended February 28, 2019.

We also consent to the use of our reports dated April 5, 2019, with respect to the consolidated financial statements of BlackBerry Limited and the effectiveness of internal control over financial reporting of BlackBerry Limited, included in the Annual Report (Form 40-F) for the year ended February 28, 2019, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP
Waterloo, Canada,
April 5, 2019

Exhibit 31.1

Certification
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, John Chen, certify that:

1. I have reviewed this annual report on Form 40-F of BlackBerry Limited;

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

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

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

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

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

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

    d. Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

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

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

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

Date: April 5, 2019

/s/ John Chen
Name: John Chen
Title: Chief Executive Officer

I, Steven Capelli, certify that:

1. I have reviewed this annual report on Form 40-F of BlackBerry Limited;

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

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

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

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

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

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

    d. Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

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

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

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

Date: April 5, 2019

/s/ Steven Capelli

Name: Steven Capelli

Title: Chief Financial Officer

Exhibit 32.1

Certification of CEO and CFO
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of BlackBerry Limited (the "Registrant") on Form 40-F for the year ended February 28, 2019, as filed with the Commission on the date hereof (the "Report"), John Chen, as Chief Executive Officer of the Registrant, and Steven Capelli, as Chief Financial Officer of the Registrant, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ John Chen

Name: John Chen
Title: Chief Executive Officer
Date: April 5, 2019

/s/ Steven Capelli

Name: Steven Capelli
Title: Chief Financial Officer
Date: April 5, 2019

This certification accompanies the Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Registrant for purposes of §18 of the Securities Exchange Act of 1934, as amended.